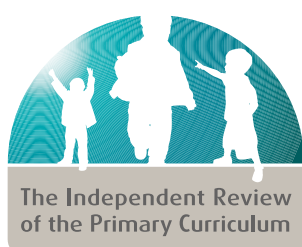


Independent Review of the Primary Curriculum: Final Report



Dear Secretary of State

This is the final report of the independent review of the primary curriculum which you invited me to undertake in January 2008. It follows the interim report that was published in December of that year. The interim report drew a wide range of responses which, together with further information gathered from visits to schools, consultation conferences, evidence of international best practice and meetings with expert groups, have been used extensively in forming the final recommendations of the review.

The central questions for the review have been: what should the curriculum contain and how should the content and the teaching of it change to foster children's different and developing abilities during primary years?

In looking to build a curriculum that answers these questions and is fit for primary children's education now and in the future, excellent teaching of communication skills, leading to the achievement of high standards of literacy and numeracy, must remain a priority. So must the achievement of high standards of behaviour and other vital aspects of 'personal development'. In this day and age, the primary curriculum also needs to give serious attention to building children's capability with information technology.

Our best primary schools already demonstrate that, far from narrowing learning, these priorities – literacy, numeracy, ICT skills and personal development – are crucial for enabling children to access a broad and balanced curriculum. Excellence in the basics supports the achievement of breadth and balance in primary education.

Our primary schools also show that high standards are best secured when essential knowledge and skills are learned both through direct, high-quality subject teaching and also through this content being applied and used in cross-curricular studies. Primary schools have long organised and taught much of the curriculum as a blend of discrete subjects and cross-curricular studies in this way. It is the best of this work that

has informed the recommendations of the review.

The proposal in my interim report to bring aspects of subject content together within areas of learning to facilitate cross-curricular studies was reported in some circles as 'abolishing subjects' such as history and geography. The reverse is true: subject disciplines remain vital in their own right, and cross-curricular studies strengthen the learning of the subjects which make up its content. From the standpoint of young learners, making links between subjects enriches and enlivens them, especially history and geography.

Discussion with parents and others showed that the descriptions of some areas of learning, as set out in the interim report, needed clarification. In consequence, the headings of three of the areas of learning have been simplified while retaining the content that they are intended to cover.

The remit required the review to tackle several stubborn obstacles in the way of securing the best curriculum for primary children. One such obstacle is the fact that there is too much prescribed content in the current curriculum. The trend – usually motivated by the desire to strengthen particular aspects of learning – has been to add more and more content with too little regard for the practicalities and expertise needed to teach it effectively.

Our primary teachers have coped amazingly well with this state of affairs and the best schools do use their current flexibilities effectively. However, many look to this review to reduce prescription and curriculum overload so that they can serve the needs of children even better. Every effort has been made to meet these expectations. The public consultation on the proposed six 'areas of learning' is a vitally important three month period during which all interested parties should be invited to consider whether the draft programmes of learning have struck the right balance between prescription of essential content and manageability for the primary teacher and school.

The review is about the curriculum rather than the whole of primary education. However, there are points where important aspects, such as pedagogy and assessment, intersect with the curriculum. This was well understood by the many respondents whose insightful contributions to the calls for evidence and to the interim report have been invaluable in helping to frame the recommendations. While my review was not remitted to consider all of these issues I have not felt constrained in commenting on them in my final report.

I wish to thank all those who have contributed to the review, especially the schools we visited. They demonstrated the best of primary education and provided us with what one head so rightly described as 'the reality check that is essential for keeping feet on the ground'.

Mick Waters, Sue Horner and their colleagues in the Qualifications and Curriculum Authority's team deserve a special vote of thanks, especially in leading the work to develop the draft programmes of learning. I am also grateful to my secretariat for their unstinting commitment and hard work throughout the review.

I hope the review will help our primary schools to build on their success so that all our children benefit from a curriculum which is challenging, fires their enthusiasm, enriches and constantly enlarges their knowledge, skills and understanding and, above all, instils in them a lifelong love of learning.

Yours sincerely

A handwritten signature in black ink that reads "Jim Rose". The signature is written in a cursive style with a large, prominent 'J' and 'R'.

Sir Jim Rose, CBE

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Executive summary and recommendations

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From interim to final report

1 Since the interim report was published on 8 December 2008 the review team has continued to build the evidence base for the recommendations in this final report. The recommendations are based on substantial evidence drawn from a wide range of research and through direct engagement with stakeholders over the past 12 months. Full details are set out in Annex C.

2 On behalf of the review, the Qualifications and Curriculum Authority (QCA) held nine regional consultation events, attended by nearly 2,000 headteachers and local authority advisers. The Primary Curriculum Review Advisory Group has met on a further two occasions since the interim report was published. The review team received around 1,000 emails and letters in response to its own consultations.

3 A helpful response to the interim report was provided by the Cambridge Primary Review, led by Professor Robin

Alexander.¹ The Children, Schools and Families Committee published its report on the National Curriculum on 2 April 2009, just as this report was being finalised.²

4 In light of all this evidence, the provisional recommendations of the interim report have been developed with changes made where there was a convincing case for so doing.

Primary education in its own right

5 The appetite and zest for learning of children in their primary years is unrivalled. It is this which makes primary teaching truly rewarding and primary education so important in its own right and for what follows. Throughout, the review has tried to capture the distinctiveness of the primary phase and to ensure it is recognised as more than a postscript to the Early Years Foundation Stage (EYFS) and a prelude to secondary education.

6 The curriculum that primary children are offered must enable them to enjoy this unique stage of childhood, inspire learning and develop the essential knowledge, skills and understanding which are the building blocks for secondary education and later life.

7 To achieve this, the new curriculum must be underpinned by an understanding of the distinct but interlocking ways in which children learn and develop – physically, intellectually, emotionally, socially, culturally, morally and spiritually – between the ages of 5 and 11. Among other things, a well-planned, vibrant curriculum recognises that primary children relish learning independently and co-operatively; they love to be challenged and engaged in practical activities; they delight in the wealth of opportunities for understanding more about the world; and they readily empathise with others through working together and through experiences in the arts, literature, religious education and much else.

8 The touchstone of an excellent curriculum is that it instils in children a love of learning for its own sake. This means that primary children must not only learn **what** to study, they must also learn **how** to study, and thus become confident, self-disciplined individuals capable of engaging in a lifelong process of learning.

9 High-quality teaching in the primary years, as elsewhere, is crucial to children's success. McKinsey and Company in its 2007 report *How the world's best-performing school systems come out on top* said that 'The quality of an education system cannot exceed the quality of its teachers'.³ This is echoed by the Cambridge Primary Review, which states that 'A curriculum is only as good as those who teach it'. Pedagogy intersects with curriculum content to such an extent that the review, at times, has to consider both.

Design for a better primary curriculum

10 Many teachers have told the review that because the existing curriculum has so much prescribed content they do not have time to teach it in depth, or for children to consolidate their learning. The Cambridge Primary Review and the Children, Schools and Families Committee also take the view that the curriculum is overloaded. This issue gave rise to a central requirement of this review: to reduce prescription and overload by reviewing the current programmes of study so that schools have greater flexibility to meet pupils' individual needs and build on their prior learning.

Key features of a new primary curriculum

11 Making the primary curriculum more manageable without loss of challenge will bring important benefits for children. The key features of the primary curriculum put forward by this review:

- **recognise the continuing importance of subjects and the essential knowledge, skills and understanding they represent.** As indicated in the interim report, the essential knowledge and skills all children should be taught, particularly in the middle and later phases of primary education, can be organised through clearly visible subject disciplines, such as history, geography and physical education. Subjects will be complemented by worthwhile and challenging cross-curricular studies

that provide ample opportunities for children to use and apply their subject knowledge and skills to deepen understanding (see Chapter 2).

- **provide a stronger focus on curriculum progression.** The review sets great store on securing children's unbroken progress throughout the primary years. The revisions will strengthen considerably the continuity and progress in learning between the EYFS and Key Stage 1 and from primary to secondary education (see Chapter 4). In the draft programmes of learning the statutory content that all children should be taught is set out in three phases. The three phases show explicitly how the curriculum broadens and deepens to reflect children's different but developing abilities between the ages of 5 and 11. Setting out curricular progression in three phases will help schools to match curriculum content with the progress

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expected of children as set out in the National Curriculum attainment targets and level descriptors (Chapter 2);

- **strengthen the focus on ensuring, that by the age of 7, children have a secure grasp of the literacy and numeracy skills they need to make good progress thereafter.** The revised primary curriculum increases opportunities for teachers to teach thoroughly and enrich all four strands of language – speaking; listening; reading; and writing – and equally valuable aspects of numeracy (Chapter 3);
- **strengthen the teaching and learning of information and communication technology (ICT) to enable children to be independent and confident users of technology by the end of primary education.** Used well, technology strongly develops the study and learning skills children need now and in the future, including the fundamentals of ‘e-safety’. Embedding ICT throughout the primary curriculum and giving it greater prominence within the core of ‘Essentials for Learning and Life’ will provide children with more opportunities to harness the potential of technology to enhance learning. Specific requirements for ICT are set out in each area of learning where it directly contributes to the essential knowledge, key skills and understanding within that area (Chapter 3);
- **provide a greater emphasis on personal development through a more integrated and simpler framework for schools.** Each child’s wellbeing is underpinned by the

acquisition of a range of personal skills and dispositions that support their learning and development.

The review proposes an overarching framework through which to develop these key skills as well as acquire essential knowledge, for example of nutrition, food preparation and healthy living. The new framework will allow schools to use programmes such as the popular Social and Emotional Aspects of Learning (SEAL) but cover important elements not within that programme (Chapter 3);

- **build stronger links between the EYFS and Key Stage 1, and between Key Stage 2 and Key Stage 3.** In the early primary stage the proposed curriculum dovetails easily with the six broad areas of learning and development in the EYFS. This allows more opportunities for extending and building upon active, play-based learning across the transition to primary education, particularly for ‘summer-born’ children and those still working towards the early learning goals. In the middle and later primary years, the curriculum content can easily be increasingly configured as subjects to help transition into Key Stage 3 (Chapter 4); and
- **offer exciting opportunities for learning languages for 7–11-year-olds.** During Key Stage 2 children will have every opportunity to learn one or more languages at an appropriate pace and depth. Language teaching will recognise the importance of supporting opportunities and celebrating the languages of the school community (Chapter 5).

Towards recommendations

12 The review puts forward to the Secretary of State recommendations for what children should be taught in a curriculum, as an entitlement of knowledge, skills and understanding that is as good as we can make it for primary children over the six years of their education from 5 to 11.

13 Two key questions the review seeks to answer are:

- What should a broad and balanced curriculum contain to ensure that children receive a well-rounded education?
- How should the curriculum change to meet children's different but developing abilities as they progress through the primary years?

Best practice

14 The recommendations take full account of what reliable and valid research has to offer on these questions. Considered judgements have been taken where research is conflicting or inconclusive. The recommendations are also based on much carefully observed

practice and what we know about how children's progress is advanced in our best schools.

15 To a greater or lesser degree every effective primary school visited by the review carefully planned and managed its curriculum to provide children with both systematic specialist subject teaching and rich cross-curricular studies. Ofsted and the QCA report that some of the most effective learning occurs when connections are made between subjects. The proposed curriculum framework will make these connections more explicit and make planning for them more manageable.

16 This approach to the curriculum is also increasingly used by independent schools. In response to the interim report, the Independent Schools Council wrote:

'Overall the recommendations reflect current thinking and practice in our schools. In general terms much of what is proposed is already happening in the sector.'

17 The review makes no apology for modelling its recommendations on best practice. This is despite comments on

the interim report from those who say that what is proposed is by no means 'new' – as if to invalidate its findings. The pursuit of novelty without quality and benefit to children has no place in primary education. It would certainly be 'new' if many more of our schools were as good as the best.

18 The curriculum content which it is recommended all primary children should be taught has been developed with, and validated by, subject experts and subject communities. Universal agreement on curricular content is impossible to achieve, even among experts from the same subject community. If the review had accepted all the claims it received for what 'must be in the primary curriculum' we would be looking at a curriculum that is much larger and far more prescriptive, not to say harder to manage, than the one we have now.

19 Other recent reviews of the curriculum have not had to put forward the detailed content of what the primary curriculum should contain. Difficult decisions have had to be taken by this review about what constitutes the **essential** knowledge, skills and understanding that all children aged 5–11 should be taught as part of a national entitlement, as opposed to what is **desirable**.

20 What is set out in the draft programmes of learning represents a national entitlement with full scope for teachers to shape how it is taught and to supplement it. For example, many schools will want to offer more than one modern language, more opportunities for learning outside the classroom and opportunities for children to take part in a wider range of physical and cultural activities.

Subjects are essential but not sufficient

21 The proposal in the interim report to organise the primary curriculum into broad areas of learning was reported as ‘abolishing subjects’ such as history and geography. This was never the case, as can be seen in the draft programmes of learning. Subjects remain as recognisable, powerful organisers of worthwhile curriculum content in the areas of learning. Subject ‘labels’ are clearly visible within the areas of learning in the middle and later phases of the curriculum. As the interim report said, schools can ‘increasingly configure content as subjects to deepen understanding and ease transition into Key Stage 3’.

22 The history children should learn at different stages of their education is always subject to intense debate. Last month it was reported in some sections of the press that the review was proposing that learning about the Victorians and the Second World War

would be made optional. The fact is that the Victorians are already optional in the primary curriculum and the Second World War is covered at Key Stage 3. But this is less important than the wider point made to the review by the Historical Association in response to the interim report:

‘The Historical Association has always maintained that the National Curriculum as it stands is overprescribed, and this is detrimental to teaching and learning. We fully support a modified framework that supports the development of a less prescriptive and a more flexible National Curriculum that draws upon subjects like history as tools for learning, as indicated in the interim report.’

23 In line with the views of the Historical Association, which has been directly involved in drafting the programme of learning, children will be taught the broad chronology of British and world history from ancient to modern times. Children will also have to study a minimum of two periods of history in depth.

Cross-curricular studies strengthen subjects

24 Direct teaching of essential subject content is vital but not sufficient. As pointed out in the Cambridge Primary Review (a point similarly made in the interim report):

‘Subjects offer one way, though again not the only way, of translating what is to be learned and taught into a curriculum which is manageable on a day-to-day basis.’

25 There are times when it is right to marshal content from different subjects into well-planned, cross-curricular studies. This is not only because it helps children to better understand ideas about such important matters as citizenship, sustainable development, financial capability and health and wellbeing, but also because it provides opportunities across the curriculum for them to use and apply what they have learned from the discrete teaching of subjects.

26 While it is usual for primary schools to think of mathematics, English and ICT in this way, virtually all subjects serve more than one purpose: they are valuable as disciplines in their own right and add value to cross-curricular studies.

27 Drama is a case in point. It is a powerful arts subject which also enhances children’s language development through role play in the early years and more theatrical work later, which can greatly enrich, say, historical and religious studies as well as personal development by exploring concepts such as empathy. Similarly, dance is a performing art which is equally at home in physical education, and both are enriched by music.

28 This approach respects the integrity of subjects but lessens the rigidity of their boundaries. Among other things it encourages children and teachers to think creatively ‘outside subject boxes’. Recent examples of successful work that illustrate this approach are set out in Chapter 2.

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Six areas of learning

29 The interim report proposed that the curriculum should be organised around six broad areas of learning. 92% of the respondents to the interim report who commented on the proposal supported a move to a primary curriculum based around broad areas of learning. Organising the primary curriculum around areas of learning also has the overwhelming support of primary heads and those teachers the review has spoken with and who sent written submissions.

30 There has been much debate over the proposed headings for the areas of learning. Discussion with parents and others showed that particular areas, as originally described in the interim report, needed to be more straightforward in making clear what content they cover. In consequence, the headings of three areas of learning have been simplified while retaining the content that they are intended to cover. The six areas dovetail well with

the EYFS framework, and map on to the subject-based curriculum at Key Stage 3 in secondary education.

31 The review recommends therefore that the primary curriculum is organised into the following six areas of learning:

- Understanding English, communication and languages
- Mathematical understanding
- Scientific and technological understanding
- Historical, geographical and social understanding
- Understanding physical development, health and wellbeing
- Understanding the arts.

32 What is proposed builds on the EYFS, provides a smooth introduction to the principal subject disciplines and prepares children for further specialist study at secondary school. The subject disciplines are grouped into six areas of learning that have at their heart the essential knowledge, understanding and skills that all primary-aged children need in order to make progress and fulfil their potential throughout statutory education and beyond.

International comparisons

33 Internationally, many countries choose to set out much of the primary curriculum as areas of learning and there is broad consensus around what should constitute these areas. An overview of recent surveys of international curricula and pupil performance data (set out in Chapter 6) explores commonalities and differences in primary curricula. While there are significant differences and cautionary notes that need to be heeded in comparing data, there is considerable convergence. For example, most countries tend to structure the primary curriculum so as to facilitate a blend of subject teaching and cross-curricular studies. The analysis shows that it is possible to discern six widely accepted areas of learning.

34 Both at home and abroad there is little dispute that a primary curriculum must develop young people's language and communications skills; mathematical understanding; scientific and technological understanding; understanding of human and social sciences; artistic and creative development; and physical and personal development. A curriculum composed

of these six areas of learning is seen to provide children with a balanced and well-rounded education.

35 Securing children's progress that builds on their prior learning is a central curricular objective. Because progress is goal related, the goals of learning must be explicit in order to guide planning and teaching, whether cross curricular or focused on discrete subject content. The existing National Curriculum level descriptors have been reviewed to make sure that they are in step with the progress expected of primary children of all abilities.

Parents

36 Children thrive best when parenting, the curriculum and pedagogy are all of high quality. In other words, children benefit most when their home lives and school lives establish similar values and expectations for their learning, behaviour and wellbeing. Much has been achieved in recent years to ensure that parents are fully informed about and seriously involved in many aspects of school life.

37 Parents are much more likely to be in contact with teachers informally as they accompany young children to and from nursery settings and primary schools than at any other stage of education. The review has observed numerous examples of parents and teachers engaging in informal dialogue about children at these times, which no doubt makes it easier for parents to engage in meetings planned by the school to discuss children's progress in greater detail.

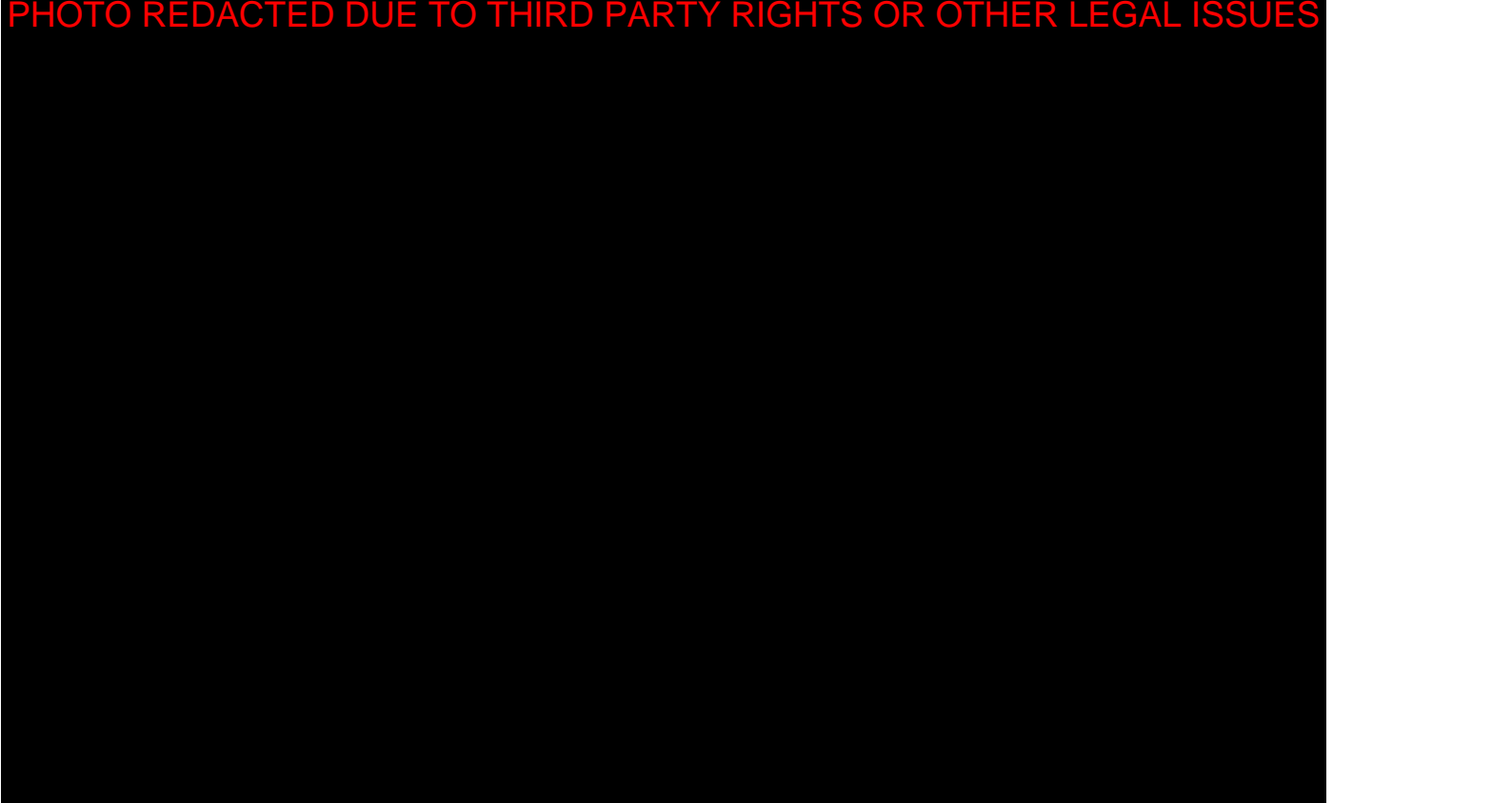
38 Views of parents have been sought during visits to schools and through commissioned surveys. These views are reported upon in Chapter 7. It is apparent that a guide to the primary curriculum, in plain language, would be of considerable help to parents and enable them to give more support at home for their children's learning at school.

Next steps

39 Ministers will decide which of the recommendations in this report they wish to take forward. Those they accept will be subject to a 12-week public consultation period, which will allow further opportunities for interested parties to comment and further consideration to be given to improving what is put forward.

40 How schools choose to organise their curriculum and timetable will remain a matter for them.

41 However, between now and the introduction of a new primary curriculum in September 2011, schools will need a significant amount of guidance and support to aid planning. On top of the recommended additional teacher training, the Department for Children, Schools and Families (DCSF) and the QCA should put together a comprehensive support package, beginning no later than January 2010. Suggestions for what this guidance and support might encompass are set out in Chapter 8.



Recommendations

The National Curriculum and curriculum review

Recommendation 1

A National Curriculum should be retained as a statutory entitlement for all children.

Recommendation 2

Consideration should be given to making the historically reactive response to curriculum review a proactive strategy whereby the EYFS and the statutory curriculum for primary and secondary schools are reviewed at agreed intervals as a whole, rather than as separate phases reviewed out of sequence. This would impose a discipline on the process of review such that schools could be assured of a period of stability in which to achieve agreed curricular goals.

Recommendation 3

The aims for a revised primary curriculum derived from the 2002 Education Act, the Children's Plan and Every Child Matters should be underpinned by a unified statement of values that is fit for all stages of statutory education. The aims and values established as part of the recent secondary curriculum review should be extended to the primary curriculum.

Managing curriculum change

Recommendation 4

In preparing for a revised curriculum in 2011, the OCA should provide examples of how successful schools manage time in order to achieve a broad and balanced curriculum.

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Curriculum design and content

Recommendation 5

The content of the primary curriculum should be organised as it is now under knowledge, skills and understanding but structured as six areas of learning to enable children to benefit fully from high-quality subject teaching and equally challenging cross-curricular studies, and to improve the continuity of learning from the EYFS to Key Stage 3.

Recommendation 6

- (i) To help primary schools sustain curricular continuity and secure pupils' progress from reception class to Year 7, the QCA should work closely with the National Strategies to assist schools to plan the new curriculum.
- (ii) Web-based guidance should be made available drawing upon the experience of that for the secondary curriculum. This should include refreshing the primary literacy and numeracy frameworks.

- (iii) In line with arrangements for implementing the new secondary curriculum, the DCSF should provide primary schools with one extra training day in 2010 to enable the workforce in each school to understand the new primary curriculum and start planning how it will work in their school.

Recommendation 7

The DCSF should commission a plain-language guide to the curriculum for parents to help them understand how it will change to match children's developing abilities and how they can best support their children's learning at school.

Literacy, numeracy and ICT

Recommendation 8

- (i) Literacy, numeracy and ICT should form the new core of the primary curriculum.
- (ii) Schools should continue to prioritise literacy, numeracy and ICT as the foundational knowledge, skills and understanding of the primary curriculum, the content of which should be clearly defined, taught discretely, and used and applied extensively in each area of learning.
- (iii) The DCSF expert group on assessment should give consideration to how the new core of literacy, numeracy and ICT should be assessed and these aspects of children's performance reported to parents.

Recommendation 9

Primary schools should make sure that children's spoken communication is developed intensively within all subjects and for learning across the curriculum. In so doing, schools should capitalise on the powerful contributions of the performing and visual arts, especially role play and drama.

Recommendation 10

- (i) Primary schools should continue to build on the commendable progress many have made in teaching decoding and encoding skills for reading and spelling through high-quality, systematic phonic work as advocated by the 2006 reading review⁴ as the prime approach for teaching beginner readers.

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- (ii) Similar priorities and principles should apply to numeracy in keeping with the recommendations of the Williams Review.

Recommendation 11

- (i) The two early learning goals for writing should be retained as valid, aspirational goals for the end of the EYFS.
- (ii) The DCSF should consider producing additional guidance for practitioners on supporting children's early writing and should offer practical examples of how this can work.

Recommendation 12

The DCSF, working with the QCA and Becta,⁵ should consider what additional support teachers will need to meet the raised expectations of children's ICT capabilities and use of technology to enrich learning across the curriculum and set in train adequate support.

Personal development

Recommendation 13

- (i) The QCA, in consultation with representative groups, should exemplify and promote the range of learning envisioned in the new framework for personal development with the firm intention of helping schools to plan for balanced coverage and avoid piecemeal treatment of this central aspect of the curriculum.
- (ii) Personal development together with literacy, numeracy and ICT constitute the essentials for learning and life. The DCSF should work with the QCA to find appropriate and innovative ways of assessing pupils' progress in this area.

Transition and progression

Recommendation 14

- (i) The preferred pattern of entry to reception classes should be the September immediately following a child's fourth birthday. However, this should be subject to well-informed discussion with parents, taking into account their views of a child's maturity and readiness to enter reception class. Arrangements should be such as to make entry to reception class an exciting and enjoyable experience for all children, with opportunities for flexible arrangements such as a period of part-time attendance if judged appropriate.
- (ii) The DCSF should provide information to parents and local authorities about the optimum conditions, flexibilities and benefits to children of entering reception class in the September immediately after their fourth birthday.

Recommendation 15

The QCA should make sure that guidance on the revised primary curriculum includes clear advice on how best to support those children who need to continue to work towards the early learning goals and build on the learning that has taken place in the EYFS.

Recommendation 16

What constitutes high-quality, play-based learning and how this benefits young children, especially those entering the early primary stage, should be made explicit in QCA guidance. Because parents, too, need to understand the importance of play, this guidance should be routed through schools to parents.

Recommendation 17

Key Stage 1 teachers should be involved in the moderation of Early Years Foundation Stage Profile (EYFSP) assessments within schools, to increase their understanding of the EYFSP and their confidence in the judgements of reception class teachers.

Recommendation 18

Major central initiatives, such as Assessment for Learning and Assessing Pupils' Progress, have huge potential for strengthening the transition of children from primary to secondary schools. The DCSF should develop these initiatives to keep pace with the fast-growing appetite in primary schools to take them on board.

Recommendation 19

With their local authorities, primary and secondary schools should agree a joint policy for bridging children's transition from Key Stage 2 to Key Stage 3. Five interdependent transition bridges are suggested for this purpose: administrative; social and personal; curriculum; pedagogy; and autonomy and managing learning. This should involve extended studies across Year 6 and Year 7, and draw upon the support of personal tutors.

Recommendation 20

When the National Strategies next review their materials they should look to further strengthen curricular continuity between Key Stage 2 and Key Stage 3.

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Languages

Recommendation 21

The knowledge, skills and understanding that children need to acquire in languages should be situated within the area of learning entitled 'Understanding English, communication and languages'. This will enable teachers and pupils to exploit the links between English and the chosen language(s).

Recommendation 22

Schools should focus on teaching only one or two languages. This should not preclude providing pupils with experiences in other languages as opportunities arise in cross-curricular studies, as long as sustained learning is secured in one or two languages to ensure that children are able to achieve progression over four years in line with the expectations of the Key Stage 2 framework for languages.

Recommendation 23

Primary schools should be free to choose the language(s) that they wish to teach; however, as far as possible the languages offered should be those which children will be taught in Key Stage 3.

Recommendation 24

The commendable work that is taking place to support the delivery of language teaching through workforce development programmes should continue at current levels of funding.

Recommendation 25

A survey by Ofsted of how well primary schools are managing the introduction of languages as a compulsory subject should take place no later than 2014.

1. The case for a National Curriculum

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'A strong, coherent curriculum which has flexibility to personalise teaching and learning is crucial to driving up standards further. It is central to the ambitions we have set out in the Children's Plan and to delivering the outcomes of the Every Child Matters agenda.

'It must provide all pupils with a broad and balanced entitlement to learning which encourages creativity and inspires in them a commitment to learning that will last a lifetime.'

Extract from the review's remit

Background

1.1 In 1987, the Department of Education and Science and the Welsh Office issued a consultation document that set out the rationale of having a statutory National Curriculum. It envisaged four broad purposes:

- to establish an entitlement for all pupils, irrespective of social background, culture, race, gender, differences in ability and disabilities;
- to establish standards by making expectations for learning and attainment explicit to pupils, parents, teachers, governors, employers and the public;

- to promote continuity and coherence through a national framework that promotes curriculum continuity and is sufficiently flexible to ensure progression in pupils' learning; and
- to promote public understanding and confidence in the work of schools and in the learning and achievements resulting from compulsory education.

1.2 There were to be two general requirements on schools, which still apply today and are currently set out in section 78 of the Education Act 2002. The curriculum for a maintained school or maintained nursery satisfies the requirements of section 78 of the 2002 Act if it is a balanced and broadly based curriculum which:

- promotes the spiritual, moral, cultural, mental and physical development of pupils at the school and of society; and
- prepares pupils at the school for the opportunities, responsibilities and experiences of later life.

Purposes of a National Curriculum as an entitlement of all children

1.3 Despite the somewhat clumsy wording of the first of these two requirements on schools, taken together they envisage the curriculum as a cultural construct derived from what we as a nation value most highly for our children. For the purposes of this review, therefore, the curriculum is taken to mean that which our society deems to be the worthwhile knowledge, skills and understanding that primary-aged children should gain at school. An important objective of primary education is to instil in children a love of learning for its own sake. For this reason the development of good attitudes to learning and a disposition to learn features strongly in this review.

1.4 Because it is a cultural construct, the school curriculum is dynamic rather than static. Hence the curriculum should be subject to well-managed, periodic change in response to national and global developments that influence how our culture is transmitted, conserved and renewed, for the benefit of all, through the process of education in school and beyond. Most respondents to the interim report thought that this was a sensible way to proceed and regarded it as 'common sense writ large'.

Past National Curriculum reviews

1.5 Since its introduction, the National Curriculum has been subject to a number of reviews. However, these have tended to come about, not so much in response to proactively managing a dynamic process of curriculum renewal, as reacting to pressure from schools and others who genuinely believe that the curriculum is far too prescriptive and overdemanding in its content, planning and preparation.

Issues with the first National Curriculum: the Dearing Review

1.6 In the early stages of implementation, it became clear that many schools had difficulties in delivering the National Curriculum effectively. In particular, teachers found the curriculum too prescriptive and too full – they argued that it stifled their ability to teach creatively and give sufficient attention to children’s learning difficulties. Assessment arrangements were considered problematic – the 10-level scale and the statements of attainment for teacher assessment were seen as cumbersome, and many teachers objected to the National Curriculum tests – in some cases, the tests were boycotted.

1.7 In 1993, Lord Dearing was asked by the Government to review the curriculum and its assessment. His report advocated a stronger focus on literacy and numeracy and recommended that each subject should be reduced to a ‘core’ plus options, freeing up around 20% of curriculum time. He argued for a substantial reduction in the attainment targets and statements of attainment. Lord Dearing also recommended that teachers should be free to record teacher assessment in ways they found appropriate.

1.8 As a result, a revised version of the curriculum was produced in 1995. The key changes were:

- content was reduced and more flexibility introduced;
- tests in core subjects remained the only statutory tests;

- information technology (IT) was introduced – to be taught on its own and through other subjects; and
- there were to be no overt statements of attainment – each subject had programmes of study at each key stage plus level descriptors for each of the eight levels (with end of key stage statements for art, music and physical education).

The 2000 review and Key Stage 4 entitlements

1.9 The curriculum underwent further substantial revision in 2000 in order to:

- reduce prescription and duplication across subjects;
- introduce citizenship as a subject at Key Stage 3 and Key Stage 4; and
- reduce the number of compulsory subjects at Key Stage 4 and to introduce entitlement areas in languages, design and technology, arts and humanities.

The new secondary curriculum

1.10 In March 2005, ministers asked the QCA to review the whole of the secondary curriculum in order to:

- give more choice to teachers over some parts of subject content, allowing them to tailor lessons better to pupils’ needs, interests and aptitudes;
- reduce overlapping objectives and prescribed examples, particularly in content-heavy subjects such as history and geography;

- develop a stronger focus on personal attributes and practical life skills; and
- help teachers and pupils to make connections between the subjects and to view the curriculum as a whole.

1.11 This brief history shows that the curriculum has been thought to be overloaded since its inception and has been subject to regular change and debate, not least about which subjects should be in or out of the curriculum and what content should be in or out of each subject.

1.12 The task for this review is to establish what is best for the learner rather than arbitrate among parties competing for curriculum time. Continuing failure to protect primary schools from curriculum overload will lead to the superficial treatment of essential content, as they struggle to cope with ‘the next new thing’ rather than teach worthwhile knowledge, skills and understanding to sufficient depth and make sure that children value and enjoy their learning.

Continuing support for a National Curriculum

1.13 Many respondents to this review recalled, unfavourably, the time when far too much of the primary curriculum suffered from low expectations, lacked challenge and was considerably more uneven in breadth, balance and quality than was the case after the introduction of the National Curriculum. No respondents to this review suggested, as the recent report by the Children, Schools and Families Committee on the National Curriculum recommended, that schools should only be required to follow the curriculum for English, mathematics, science and ICT.

1.14 Despite claims of overload and overprescription, the review has found almost universal support for the continuation of a National Curriculum. Respondents to the review welcome the concept of a common entitlement for all pupils, clear expectations of standards of learning and attainment and the curriculum continuity it provides for pupils. Many felt that the National Curriculum had brought a degree

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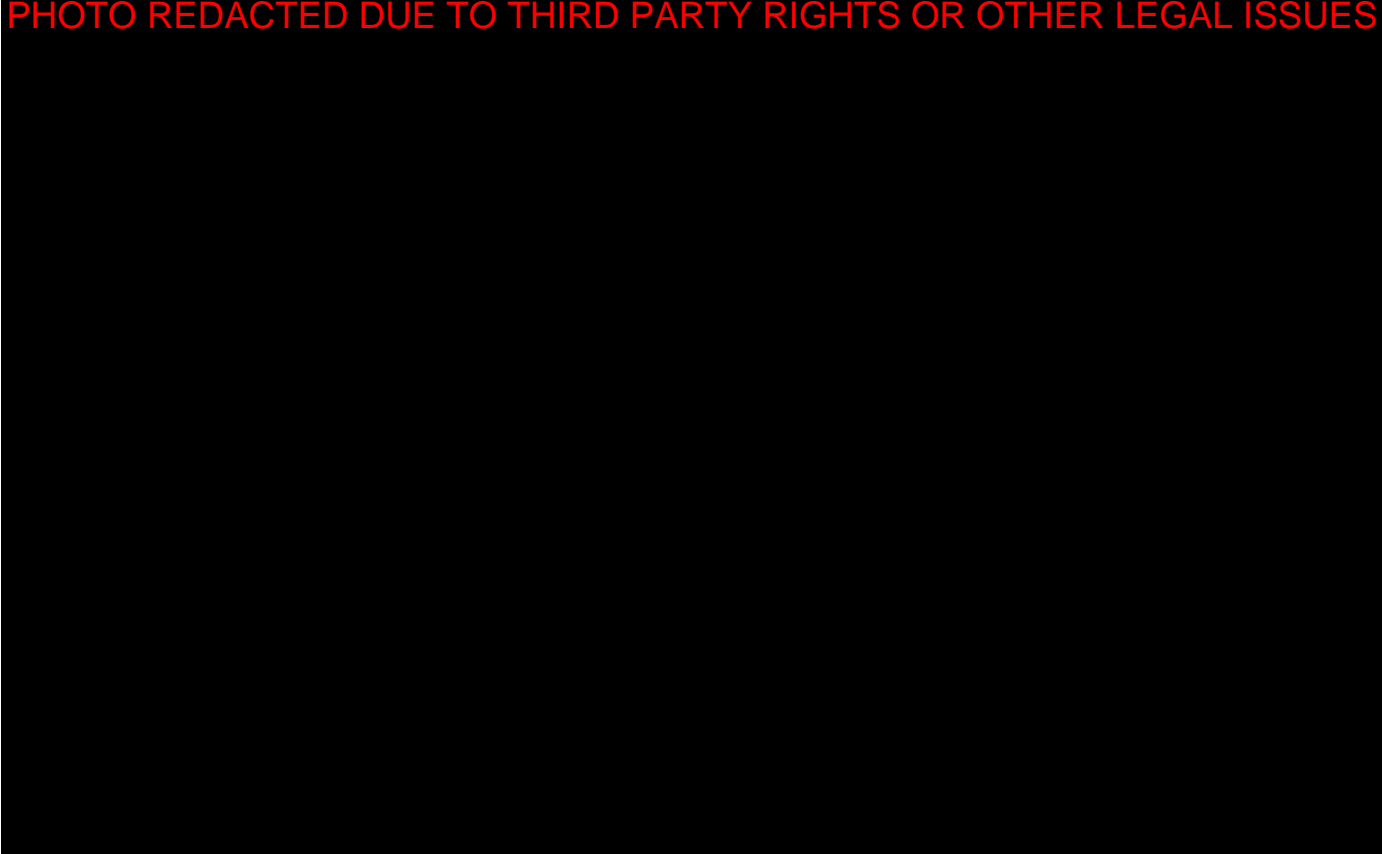
of consistency to schools that was previously lacking.

1.15 Most accept that in order to have a statutory National Curriculum there must be some degree of prescription over what the common entitlement should contain. Debate over subject content and the degree of prescription is often a contest of strong views about what children should learn, particularly in territories such as history. It is hardly surprising, therefore, that those who champion subjects, having fought hard to preserve the identity of their subject and capture curriculum time for it in primary schools, should want to defend those gains as far as possible. However, they too acknowledge that forcing primary schools to teach too much curriculum content in the time available will lead to superficial treatment that is detrimental to their subject and, more importantly, to the quality of children's education overall.

Primary education: aims and values

1.16 It is self-evident that the aims of education should be derived from the values we hold essential for living fulfilled lives and for contributing to the common good in a civilised, democratic society. Respondents to this review have rightly pointed out that clarity on values and aims should be the starting point for determining the primary curriculum. Establishing guiding principles for the education of the 'whole child', as the terms of reference require, depend on nationally agreed values and aims for the whole of school education. In other words, there should be a unifying set of values and aims for the whole of education rather than disparate and different values and aims for each of the three parts: early years, primary and secondary.

1.17 A criticism of the original National Curriculum was that it was not derived from a clear set of aims. Aims and purposes for the National Curriculum were not overtly stated until the 2000



review. The Cambridge Primary Review argues that the National Curriculum has become detached from any aims that have been subsequently added to it since its introduction.

The Children's Plan and Every Child Matters

1.18 Values and aims for education are variously set out in several recent government initiatives. For example, the Children's Plan,⁶ and the Every Child Matters agenda introduced by the Children Act 2004, embody the values and aims on which this review is based. Among much else, the Children's Plan places 'system reform to achieve world class standards' and 'closing the gap in educational attainment for disadvantaged children' at the heart of government intentions for education. Every Child Matters states that every child, whatever their background or circumstances, should have the support they need to:

- be healthy;
- stay safe;
- enjoy and achieve;
- make a positive contribution; and
- achieve economic wellbeing.⁷

1.19 Our respondents strongly supported the Children's Plan's vision to make England the best place in the world for children to grow up. They saw the challenge for this review primarily as strengthening education so that it supports the values and aims that the nation determines for all its children in the light of this vision.

Aims of the secondary curriculum

1.20 The recently revised secondary curriculum takes account of Every Child Matters outcomes and the statement of values by the National Forum for Values in Education and the Community. The latter is arranged under headings of the self, relationships, our society, and the environment. These are distilled into three aims for secondary education, enabling all children to become:

- successful learners who enjoy learning, make progress and achieve;
- confident individuals who are able to live safe, healthy and fulfilling lives; and
- responsible citizens who make a positive contribution to society.

1.21 Responses to the interim report consultation and discussion with headteachers and schools has found strong support for these three easily

remembered aims and their applicability to the primary curriculum. The Cambridge Primary Review questioned whether the aims developed for the secondary curriculum were applicable to the primary curriculum and suggested 12 aims for a primary curriculum, four relating to 'the individual'; four relating to 'self, others and the wider world'; and four relating to 'learning, knowing and doing.' These are very much in line with the values underpinning the secondary curriculum which relate to self; relationships; our society; and the environment.

1.22 The diagram overleaf shows a considerable match between the aims developed for the secondary curriculum and the aims presented by the Cambridge Primary Review.

1.23 In other countries, for example Scotland, identical curriculum aims apply across all learning from 0 to 19. In Scotland, the four 'capacities' of the new curriculum perform a similar function to the aims in England. Indeed, the first three capacities are identical

Independent Review of the Primary Curriculum

Cambridge Primary Review

Successful learners who enjoy learning, make progress and achieve

- Have the essential learning skills of literacy, numeracy and ICT
- Are creative, resourceful and able to identify and solve problems
- Have enquiring minds and think for themselves to process information, reason, question and evaluate
- Understand how they learn and learn from their mistakes
- Enjoy learning and are motivated to achieve the best they can now and in the future

Learning, knowing and doing

- Exploring, knowing, understanding, making sense
- Fostering skills
- Exciting the imagination
- Enacting dialogue

Confident individuals who are able to live safe, healthy and fulfilling lives

- Have a sense of self-worth and personal identity
- Relate well to others and form good relationships
- Become increasingly independent, and are able to take the initiative and organise themselves
- Recognise their talents and have ambitions
- Are willing to try new things and make the most of opportunities

The individual

- Wellbeing
- Engagement
- Empowerment
- Autonomy

Responsible citizens who make a positive contribution to society

- Respect others and act with integrity
- Understand their own and others' cultures and traditions within the context of British heritage, and have a strong sense of their own place in the world
- Appreciate the benefits of diversity
- Sustain and improve the environment, locally and globally
- Take account of the needs of present and future generations in the choices they make

Self, others and the wider world

- Respect and reciprocity
- Interdependence and sustainability
- Local, national and global citizenship
- Culture and community

to England's aims: successful learners; confident individuals; responsible citizens. However, there is a fourth capacity: effective contributors.

1.24 In Northern Ireland, the curriculum 'aims to empower young people to develop their potential and to make informed and responsible choices and decisions throughout their lives'. In addition to this aim there are also objectives. These are 'to develop the young person as an individual, as a contributor to society, and as a contributor to the economy and the environment'.

1.25 In New Zealand, where implementation of a new primary and secondary curriculum began in 2007, the vision for the curriculum is to produce 'young people who will be confident, connected, actively involved, lifelong learners'.

1.26 This review accepts the aims developed for the secondary curriculum as being equally applicable to primary-aged children.

2. Curriculum design and content

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'The content of the existing programmes of study should be reviewed, reducing prescription where possible.'

'Your review should consider when and how in primary education children should be introduced to the key ideas and practices of the principal subject areas of learning.'

'I would welcome your advice on whether, in order to provide greater continuity from the Early Years Foundation Stage (EYFS), pupils' interests might be better served by studying fewer subjects during primary education, particularly in Key Stage 1. You will also want to consider whether some aspects of the EYFS should be extended into the primary curriculum. This might include, for example, placing emphasis on the full range of areas of learning and development contained in the EYFS, including social and emotional areas of development, and widening the curriculum opportunities for child-initiated and play-based activity.'

Extracts from the review's remit

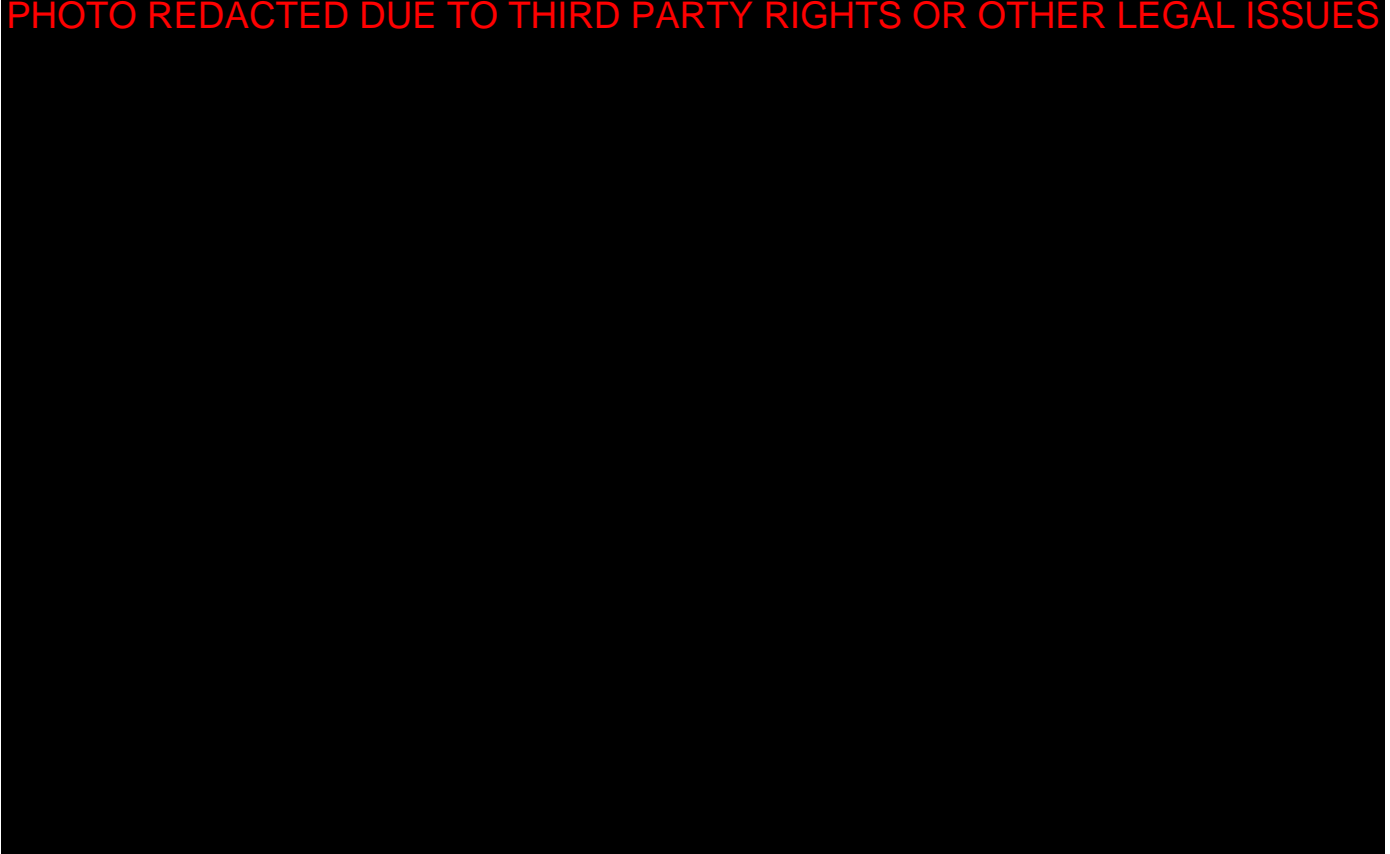
Curriculum overload and prescription

2.1 While there is much that is good in the current National Curriculum, few disagree that for primary schools in particular it remains overcrowded. The interim report discussed in detail the concerns about overprescription and overcrowded content. The Children, Schools and Families Committee stated that:

'...despite repeated reforms intended to reduce the level of prescription contained in the National Curriculum it remains substantial.'⁸

2.2 The Cambridge Primary Review reported similar findings:

'The most frequent of all charges laid by our witnesses against the current



National Curriculum was that it is overcrowded, leaving teachers with insufficient time to enable children to engage adequately with every subject required by law.⁹

2.3 In addition many respondents are concerned that the curriculum is at the same time narrowed by the Key Stage 2 National Curriculum tests, the focus of Ofsted inspections and the National Strategies. They argue that as a result of these external pressures the principle of an entitlement to a broad and balanced curriculum is, in effect, denied to many children.

2.4 This review was not remitted to consider changes to the current assessment and testing regime. However, many respondents were concerned about the effects of how they are used and reported in national league tables of school performance. Their message is that, while accountability for pupil performance is essential, the current accountability arrangements are in urgent need of reform because

schools and teachers may respond to them in ways which encourage pedestrian teaching.

2.5 During the course of this review, the Government has set up an expert group on assessment and testing to consider and report on these issues. It will be for this group to consider how the assessment and testing regime should reflect the curriculum priorities set out in this report.

The pressures facing a primary teacher

2.6 These concerns strongly suggest that it is the total demand on the class teacher system that is at issue rather than the National Curriculum alone. The availability of time and its management will continue to pose considerable problems unless a better fit of curriculum content to the capacity of primary schools can be achieved.

2.7 Those who would add ever more to the curriculum should try to put themselves in the shoes of primary class teachers facing the frustration of trying to keep the already well-filled subject plates spinning while more is being added to them.

2.8 This is particularly true in Years 5 and 6, where teachers' subject knowledge is most stretched, not least in meeting the intellectual reach of the most able children.

What schools control

2.9 Despite the concerns outlined above, a great deal of the curriculum-related activities remain within the control of schools. These include:

- teaching methods and pedagogy;
- teaching content additional to the statutory National Curriculum;
- how the curriculum is organised and described, for example as subjects, topics or themes;
- the distribution of the curriculum across each key stage;
- the daily timetable, i.e. start and finish times of the day, breaks and lunch times;
- the teaching hours per week (providing that they are at, or above, the recommended minimum);
- the time allocated to each subject and the length of each lesson;

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- the organisation of teaching groups, for example by age, ability or otherwise;
- how the curriculum caters for inclusion and differentiation, for example for children with specific learning difficulties;
- the resources for learning; and
- assessment for learning, and assessments and tests other than for national reporting.

2.10 The list is not exhaustive but all of these factors, if not carefully planned and well managed by schools, may act as considerable constraints on the curriculum no matter how good the design and the content of it may be. Regardless of the freedom teachers actually have to exercise professional judgement about how they teach, many believe that the Government, the QCA, Ofsted and the National Strategies, or a combination of all four, effectively restrict that freedom.



Curriculum design and content: solving the problems

2.12 Consultations before and after the interim report show widespread support from schools for a revised primary curriculum based on:

- a reduction in content with greater flexibility and less prescription;
- a clear set of culturally derived aims and values;
- securing high achievement in literacy, numeracy and ICT;
- explicit opportunities for children to benefit from subject teaching **and** cross-curricular studies that cover the principal areas of our history, culture and achievement and the wider world; and
- explicit opportunities throughout to foster children’s personal development and good attitudes to learning.

2.11 Although most schools exceed the recommended minimum time, including by offering extra-curricular activities, the minimum time available for the whole curriculum, i.e. the recommended minimum number of teaching hours per week for schools, is as follows:

Suggested minimum weekly lesson time

Age range	Hours
5–7 years old	21.0
8–11 years old	23.5
12–13 years old	24.0
14–16 years old	25.0

Independent review

2.13 These views have been taken into account in designing the proposed curriculum. The review does not agree, however, with those who believe that we should start with a blank sheet, as if all or most of what primary education has been about in recent years has failed children either collectively or individually. It is worth repeating that the review’s rationale for the curriculum calls for conserving and transmitting that which is good as well as changing that which needs to be better.

For the Learning Journey

Bournville Junior School, Birmingham

At Bournville, foundation subjects are the springboard for broad 'Learning Journeys' which widen children's horizons and stimulate their desire to learn. For example, music is part of the 'Where in the World' Learning Journey, which also includes geography and history. So, pupils learn about music from different countries and eras and compare it with their own time and place. The curriculum also provides wide-ranging opportunities for music production through composing and playing – some pupils have even performed with the Welsh National Opera.

'I think our Learning Journey is brilliant. Because subjects are grouped together, we don't have to stop for the next lesson, but can carry on working on a project until it's finished.'

Sam Coley, Year 6 pupil at Bournville Junior School

The Learning Journeys – others include 'Ourselves and the World' and 'Showtime: the History of Theatre' – do not replace single subject teaching, they enhance it. The National Curriculum requirements for each subject are clearly set out as part of each journey, as well as other important aspects of learning such as working together and communication skills. To support the programme, Bournville has forged links with local secondary schools that provide specialist music teaching – an approach that has also proved successful in other areas of learning. For example, collaboration with specialist language college Kings Norton Girls' School has enabled French to be offered to pupils in all years.

Reducing prescription and content

2.14 The review strongly agrees with schools' concerns about overprescription and overcrowded curriculum content. Working with a wide range of stakeholders over the past 12 months, including primary headteachers, teachers, subject specialists and learned societies, the review has sought to reduce content where it is not considered essential or developmentally appropriate for 5–11-year-olds. That is to say, it has tried hard to make sure that continuity and progression in learning from the age of 5 to 11 are focused on the worthwhile knowledge, skills and understanding that are essential for a broad and balanced education.

2.15 In order to validate curricular content the review invited subject associations and learned societies to:

- scrutinise the existing programme of study for their subject, segmenting the task under the headings of knowledge, skills, understanding and attitudes, and advise on what the essential knowledge, skills and understanding should be;
- consider how the content for the subject might be reduced or better placed in another key stage;
- consider how to achieve the flexibility that primary schools say they need in order to enhance the curriculum by making the best of their local circumstances; and
- advise on how subjects might contribute to cross-curricular studies.

2.16 Some commentators may turn straight to the review's draft programmes of learning and try to reduce them to a simple comparison with the existing programmes of study of what is in or out. However, the new curriculum is not simply a question of what is 'in' or 'out'. It gives schools much more flexibility to plan a curriculum that meets the national entitlement and much greater discretion to select curriculum content according to their local circumstances and resources. For example, in historical, geographical and social understanding, children should be taught to 'find out about the key features of their own locality and how it has changed over time', as well as forging 'links between their locality and other places in the UK and beyond'.

2.17 By prescribing less there are more opportunities for teachers to choose their own contexts to develop children's knowledge, skills and understanding. For example, in scientific and technological understanding, children should be taught to apply scientific knowledge and understanding to grow

healthy plants from seed back to seed rather than simply naming the individual parts of the flower.

2.18 In physical development, health and wellbeing, teachers have more freedom to decide upon the range of activities children should participate in to promote physical development both inside and outside the classroom.

2.19 Helping schools to create coherent and more integrated learning experiences will cover a number of curriculum objectives at once and save valuable curriculum time. For example, a small rural Shropshire primary school visited by the review was set in idyllic countryside. This environment was expertly and frequently used by the school for a wide range of outdoor pursuits, such as forestry management, cross-country running and field studies of habitats, the landscape and its settlement, which brought together valuable aspects of history, geography, science and technology, mathematics and environmental sustainability.

2.20 It is inevitable that variables such as their size, type and location will influence what primary schools can offer and the frequency of worthwhile activities that is possible.

2.21 The small Shropshire school's environment obviously contrasts sharply with that of large inner-city primary schools, for example, which exploit their locality and create different but complementary strengths. Several examples were seen of inner-city schools where unpromising playground space had been imaginatively transformed into green areas for growing and studying plants. Others used playgrounds for a number of purposes, such as a London school which had pioneered a Zoneparc model at lunchtimes, providing highly structured sporting areas with different playground activities, supported by parents and pupil play leaders.

2.22 Rural and urban environments can and should be exploited to provide equally valuable and stretching learning experiences. In reducing the overall level of content compared to the

existing primary curriculum, the review has sought to provide schools with considerably more scope for exploiting their local circumstances, which is essential in order to promote high standards.

Organising the curriculum around areas of learning

2.23 The proposed model for curriculum design builds on the EYFS, secures children's introduction to the principal subject disciplines and prepares them for further specialist study at secondary school. The subject disciplines are grouped into six areas of learning that have at their heart the essential knowledge, understanding and skills that all primary-aged children need in order to make progress and achieve. Teachers will be able to make links within and across areas of learning to help children understand how each distinctive area links to and is supported by others.

2.24 Those in favour of areas of learning felt this approach would help a classroom teacher to see how, within programmes of learning, the curriculum should broaden and deepen as children's capabilities grow from

the age of 5 to 11. Following extensive discussion with primary headteachers, the review's Advisory Group and subject specialists, the review recommends that curriculum content is set out in three phases, to show curriculum progression through the 'early, middle and later' primary education.

Curricular progression

2.25 The curricular progression set out for the early primary phase builds on prior learning and experience from the EYFS. This will provide children with a smoother transition from the EYFS areas of learning and development to a primary curriculum also based on six broad areas of learning, and is in line with the remit given to the review to consider whether '...pupils' interests might be better served by studying fewer subjects during primary education, particularly in Key Stage 1'.

2.26 Primary schools will have the opportunity to organise the curricular content for the middle phase more as subject disciplines if they judge this appropriate.

0-5 years	5-11 years	11-14 years
Communication, language and literacy	English, communication and languages	English
Personal, social and emotional development	Understanding physical development, health and wellbeing	Modern foreign languages
Physical development	Historical, geographical and social understanding	Personal, social, health and economic education
Knowledge and understanding of the world	Scientific and technological understanding	Physical education
Creative development	Understanding the arts	Citizenship
Problem solving, reasoning and numeracy	Understanding mathematics	History
	ICT across all areas of learning	Geography
		Science
		Design and technology
		Art and design
		Music
		Mathematics
		ICT

Curricular progression from 0–14

2.27 In the later phase, Years 5 and 6, curricular content can be increasingly configured as subjects to help ease transition into Key Stage 3.

2.28 Setting out the Key Stage 2 curriculum in what is, in effect, two phases has potential benefits. There is a perception that some children suffer a dip in performance between the end of Year 2 and the end of Year 4. Separating out the Key Stage 2 curriculum into middle and later phases of primary education will give schools a sharper focus on the expected curriculum progression most children should

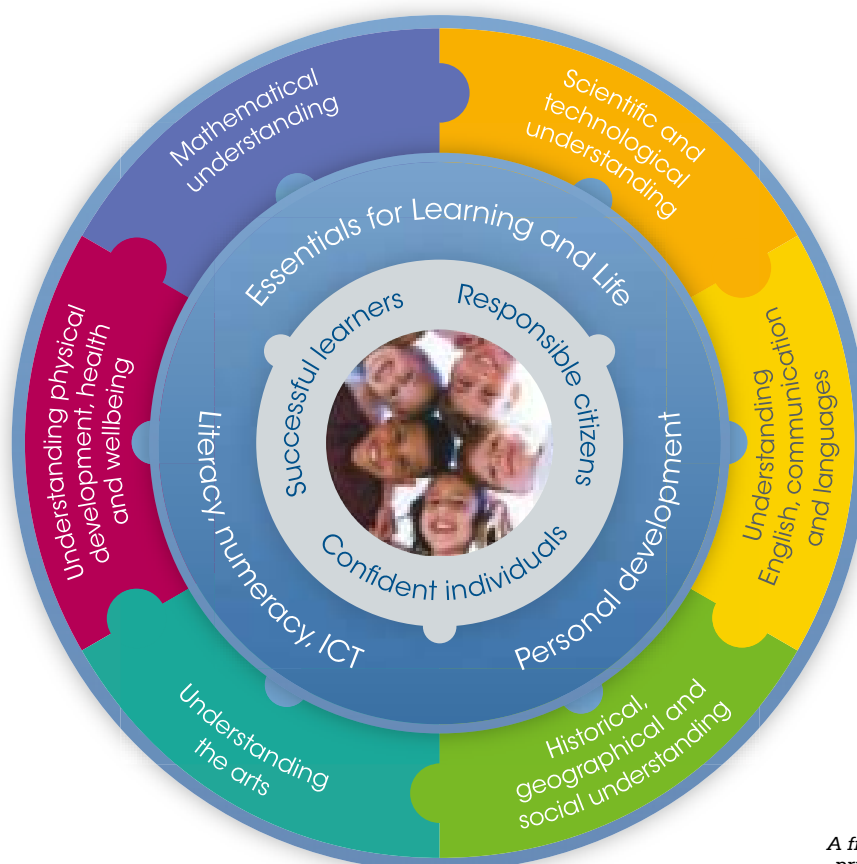
experience in Years 3 and 4. This is particularly important for the crucial areas of literacy and numeracy where, if children do not continue to receive well-structured, systematic, direct teaching and opportunities to develop their literacy and numeracy skills through regular use and application, the progress achieved in Key Stage 1 may not be maintained.

2.29 The examples given in the explanatory text of the three phases of curricular progression are not exhaustive. Teachers are free to exploit other equally relevant examples for teaching the knowledge, skills and understanding to which children are entitled. The prescribed content represents a national entitlement which teachers will be able to extend in order to further the different but developing abilities of the children.

2.30 An overview of recent surveys of international curricula and pupil performance data (set out in detail in Chapter 6) explores commonalities and differences in primary curricula. While there are significant differences and cautionary notes that need to be heeded in comparing data, there is also considerable convergence. For example, most countries tend to structure the primary curriculum around broad areas of learning. The analysis shows that it is possible to discern six generally accepted areas of learning that reflect the major areas of human knowledge, skills, understanding and activity.

2.31 The 2003 International Review of Curriculum and Assessment Frameworks (INCA) study¹⁰ of primary curriculum trends in 20 countries found that there was a high degree of commonality in the way in which content of the primary curriculum across the countries was organised. This content related to six broad areas:

- national languages;
- mathematics;
- science (sometimes containing technology);
- art and music;
- physical education (often including health education); and
- some form of humanities.



A framework for the primary curriculum

2.32 The review therefore reaffirms the recommendation in the interim report that the essential knowledge, key skills and understanding of the primary curriculum should be organised in six areas of learning. There has been much discussion over the proposed headings for the areas of learning. Discussion with parents and others showed that particular areas, as originally described in the interim report, needed to be more straightforward in making clear what content they cover. In consequence, some adjustments have been made to the headings of three of the areas of learning while retaining the firm intention to help schools teach a curriculum that secures essential knowledge and skills, develops understanding, builds capabilities and establishes good attitudes to learning. These areas also dovetail well with the EYFS framework, and map on to the subject-based curriculum at Key Stage 3 in secondary education.

2.33 The six areas of learning are:

- understanding English, communication and languages;
- mathematical understanding;
- scientific and technological understanding;
- historical, geographical and social understanding;
- understanding physical development, health and wellbeing; and
- understanding the arts.

2.34 The proposed areas of learning in the report are not intended to be rigid structures, and schools should continue to have the flexibility to organise learning in a variety of ways. There should be considerable scope for imaginative approaches to curriculum design at a local level and opportunity for disciplined curriculum innovation.

The potential benefits of cross-curricular studies

2.35 Areas of learning provide powerful opportunities for children to use and apply their knowledge and skills across subjects. This builds on their enthusiasm for learning from first-hand investigations and researching knowledge from a range of sources to deepen their understanding. While it is usual for primary schools to think of mathematics, English and ICT in this way, virtually all subjects serve more than one purpose: they are valuable as disciplines in their own right and add value to cross-curricular studies.

2.36 There are many recent examples of successful work that illustrate this approach, including the following:

- Schools that chose the 200th anniversary of Darwin's birth to launch a study of this famous Victorian and his lasting contribution to science included learning about the journeys of the Beagle, mapping the route to

the Galapagos Islands and the climate and conditions revealed through the voyage which furnished Darwin with a wealth of evidence for his theory of evolution. Many schools received an excellent stimulus to these studies through the Royal Botanic Gardens, Kew initiative – The Great Plant Hunt – for primary schools.

- There are numerous examples of children engaging in out-of-school and outdoor education, to study landscapes, settlements and habitats that bring together valuable insights into history, geography, science and technology, mathematics and environmental sustainability from common starting points. Much excellent material and expertise is provided for primary schools for these studies by organisations with strong educational programmes, such as the National Trust, the Royal Society for the Protection of Birds, the Hamilton Trust, and Oxfam.

Sustainable teaching

Cassop Primary School, Cassop, Durham

Sustainability permeates the work and life of Cassop Primary School near Durham. In fact, the school is the first wind-powered school in the UK and can even be a net producer of energy.

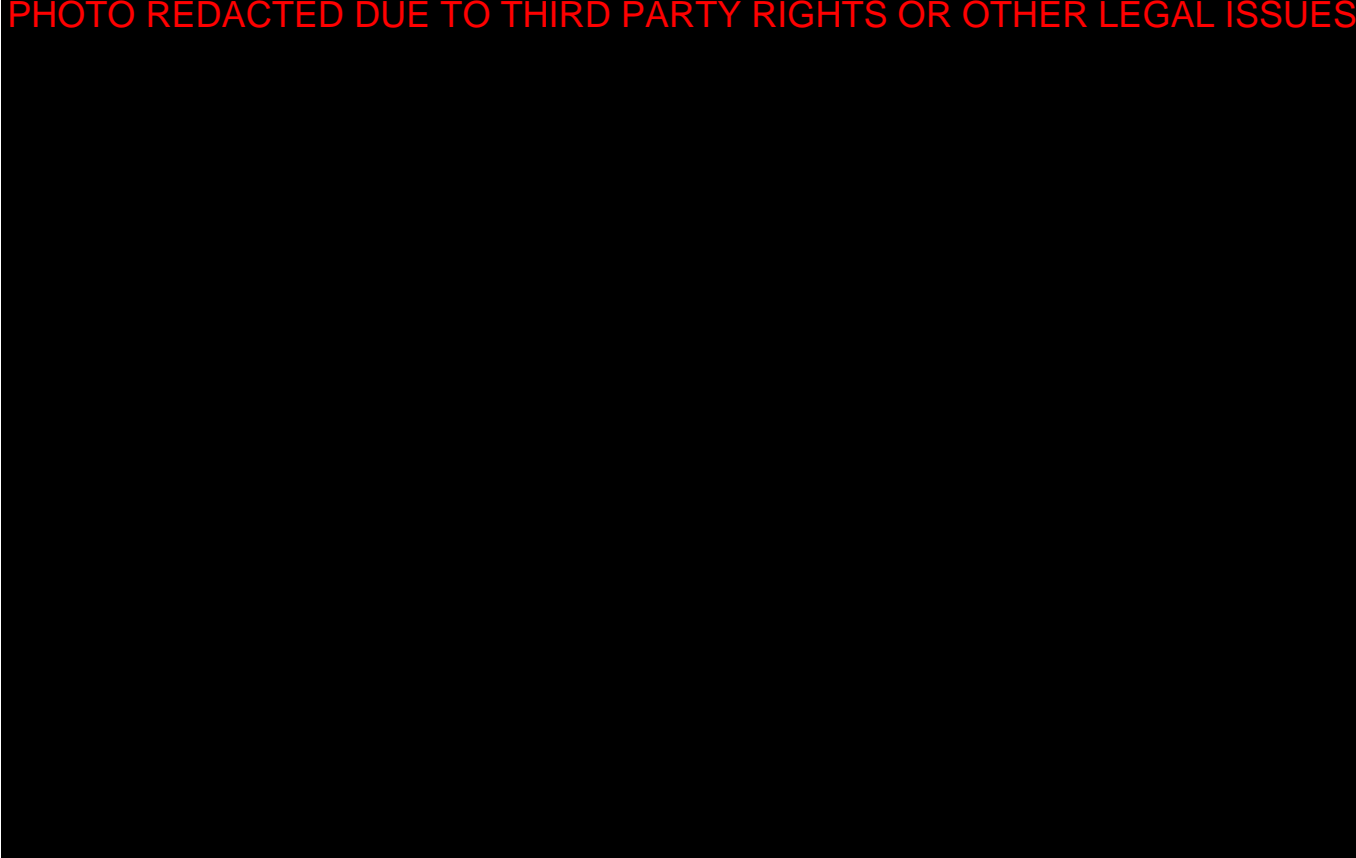
This environmental programme has generated not only electricity to power the school but also knowledge to power its curriculum. The school has used the programme to enhance learning, particularly in science and technology and environmental understanding. For example, pupils are able to explain clearly the science underpinning the technology, while as a focus for learning they develop skills in enquiry, reasoning and creativity.

Cassop emphasises learning through first-hand experiences and this also drives its regular programme of educational visits and links with schools in other countries such as China and Kenya.

The school has won awards for its approach to sustainability and has an environmental classroom, which is available for use by other schools.

‘Preparing our children for a sustainable future is not only relevant to real life, but delivers benefits across the curriculum. It has helped our pupils to develop self-confidence, responsibility, communication skills and creativity as well as sound scientific and technical knowledge.’

Jim McManners, Head,
Cassop Primary School,
Cassop



- Many schools have transformed their grounds, sometimes from very unpromising conditions, into excellent areas for cross-curricular studies, offering exciting opportunities for children to learn out of doors about horticulture, energy conservation and recycling technology from first-hand experience. The Royal Horticultural Society provides excellent support for primary schools in these respects.

- Studies of great civilisations often broaden from history into geography and science, and include aspects of the history of ideas which fascinate primary children, for example the germ theory of disease and the origins of numbers.

- A programme based on Indian dance enabled children to explore ideas of symmetry and angularity and to create dance sequences expressing emotions such as joy and sadness, while contributing to the overall amount of time advocated for physical education.

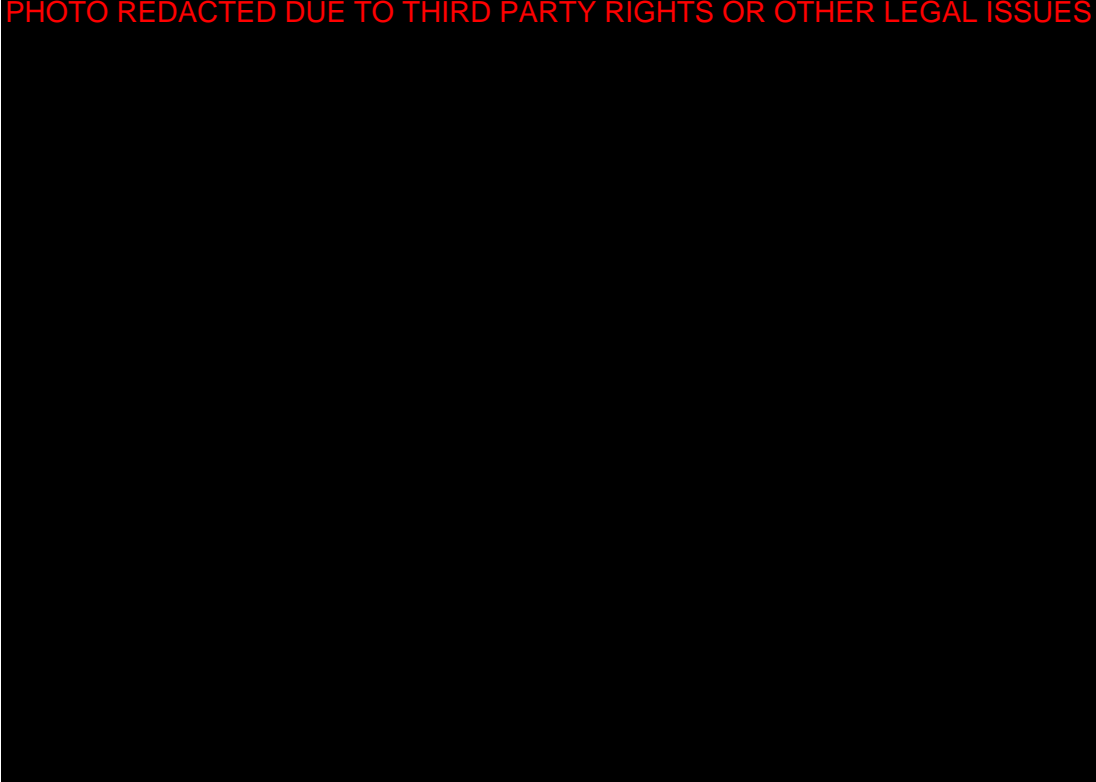
2.37 An important advantage for children in what is proposed is the the opportunities to establish good attitudes and dispositions to learning. This is because good subject teaching combined with cross-curricular studies will enable children to learn not only **what** to study, but also **how** to study as part of a self-disciplined, engaging and rewarding process.

2.38 Other distinct advantages are that the approach:

- enables a gradual increase in specialist teaching of subjects and other worthwhile content to match children's progress in Key Stage 2;
- maps on to the subject-based curriculum that the vast majority of children will meet from Year 7 in their secondary schools; and
- offers challenging opportunities for gifted and talented children to fulfil their potential, for example through extended studies.

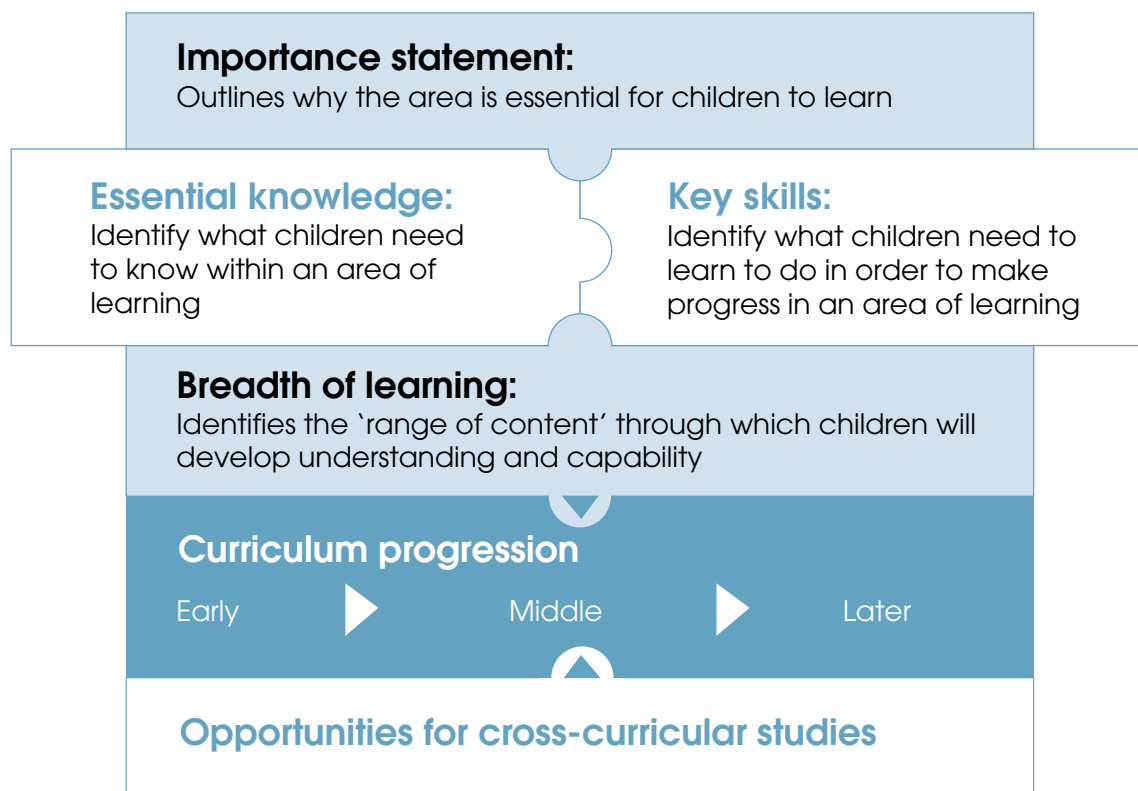
2.39 Rather than delaying the start of subjects in the curriculum, the review therefore recommends grouping closely related subjects into areas of learning and reducing the amount of prescribed content.

2.40 The proposed areas of learning in the report are not intended to be rigid structures, and schools should continue to have the flexibility to organise learning in a variety of ways. There should be considerable scope for imaginative approaches to curriculum design at a local level and opportunity for disciplined curriculum innovation.



How will the programmes of learning be structured?

2.41 Each programme of learning follows a common format:



Learning with a purpose

De Havilland Primary School, Hatfield

When ideas were invited for the rejuvenation of a local square, teachers at De Havilland devised a field project for children that would link with subjects across the curriculum and help them study their local environment. The 'Old Hatfield Project' was based around the redevelopment of the town's Salisbury Square. Pupils conducted a survey of the site, analysed the results, built models of design ideas and presented their findings to a *charette* (a design meeting) to discuss ideas, attended by the landowner, Lord Salisbury.

'The children really appreciated that this was learning with a purpose, linked to a live community project. They were surprised that they had covered so many curriculum subjects because the process felt so natural and fun.'

Tim Day, Head,
De Havilland Primary
School, Hatfield

The project covered several curriculum areas, including mathematics, history, design and technology. Even language learning benefited, as the French term for the meeting (*charette*) inspired classroom discussions. The project also helped children develop social and communications skills, as was well demonstrated in a DVD they made of their presentation.

One child commented: 'We prefer to have all the subjects combined together because... you don't realise how many subjects you are covering in one big activity.'

3. Essentials for Learning and Life

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As discussed in Chapter 1, the review accepts that the three broad aims of the secondary curriculum (successful learners, confident individuals and responsible citizens) should also apply to the primary curriculum. Achieving these aims depends upon children securing high levels of literacy, numeracy and information and communication technology (ICT) skills together with all that is intended by personal development and the interpersonal skills associated with it.

3.1 Such is the importance to children of acquiring a command of these skills in the primary years that the review recommends literacy, numeracy, ICT and personal development form the new 'core' of the primary National Curriculum. The design of the curriculum and the new programmes of learning prioritise these skills and offer teachers the scope to teach them well.

3.2 The understanding English, communication and languages programme of learning sets out what children need to be taught to secure high standards of reading and writing. Important aspects of numeracy will be taught in the understanding mathematics area of learning. Specific requirements for developing ICT skills are set out where it directly contributes to the essential knowledge and key ideas within each area of learning. This approach will promote the learning of literacy, numeracy and ICT throughout

the curriculum and ensure they are used and applied in dedicated lessons and in context across children's wider learning.

3.3 The Qualifications and Curriculum Authority's (QCA's) curriculum development work over the past three years and the review's work with stakeholders have found significant support for this approach in which the whole curriculum reinforces the direct teaching of essential knowledge and skills to build understanding and capability. Support is particularly strong among the teaching profession, who believe that placing greater emphasis on the development of literacy, numeracy, ICT and personal development across the curriculum will give them the flexibility to help all learners make the best possible progress.

Literacy

Developing language and communication

3.4 The six years from 5 to 11 are a crucially important phase of children's education. Nowhere is this more apparent than in the progress primary children make in developing their language and communication skills. For example, the vast majority move successfully from 'learning to read' to 'reading to learn' by the age of 7.

3.5 By the age of 7 – not yet halfway through their primary years – the great majority of children have learned many important skills to the point where they are 'automatic'. That is to say, they can apply them as if without thinking. These include reading, spelling, recall of number facts and bonds (including times tables) and handwriting. Some children show similar facility with reading music and playing a musical instrument, using computers, swimming, gymnastics and a host of other skills. As a result, most children become so well equipped with these skills that they confidently expect to succeed in learning, which is a valuable disposition in itself. These skills, of course, are not acquired by chance: they require well-structured, systematic teaching, regular application and practice.

High-quality teaching and learning

3.6 Good primary teaching involves far more than waiting for children to develop by following their every whim. It deliberately deepens and widens children's understanding by firing their imagination and interest and paving the way to higher achievement through 'scaffolding' learning in a community of learners. As envisaged by Vygotsky and other well-respected cognitive researchers, good teaching means that 'what children can do with adult support today they can do unaided tomorrow.'¹¹

3.7 Research is steadily uncovering much more about the learning brain and this research needs to be applied in early years and primary education. On language development, for example:

'The human brain also learns by imitation and by analogy, and the acquisition of language boosts learning enormously. Children can use language to reflect upon and change their own cognitive functioning (this is called metacognition)... Language is the core symbolic system underpinning human cognitive activity, vastly increasing the efficiency of memory, reasoning and problem solving. Symbolic systems (language, writing, numbers, pictures,

maps) enable the individual to develop a cognitive system that goes beyond the constraints of biology (e.g. oral memories hold less information than books). Symbol systems also enable explicit self-regulation: humans can use language to organise and improve their own cognitive performance. Hence mental capital can be improved by using metacognitive strategies and executive functions. Executive functions are “executive” abilities such as the intentional monitoring and self-regulation of thought and action, the ability to plan behaviour and the ability to inhibit inappropriate responses. Metacognitive skills can be taught to very young children.¹²

Speaking and listening

3.8 As the interim report noted, for the purposes of this review literacy is regarded as covering speaking, listening, reading and writing. Discussion of reading and writing in primary education sometimes fails to recognise the central importance of developing children’s spoken communication. (Some respondents preferred the term ‘oracy’ to ‘speaking and listening skills’ in the belief that this better defines the engagement in dialogue intended to advance children’s thinking across the curriculum.)

3.9 Better progress is being made in this respect through government-funded initiatives such as Time for Talk and Every Child a Talker. However, schools would do well to take stock of how effectively they provide opportunities, for example, for children to enlarge their vocabulary, listen attentively and talk confidently and intensively about their work and experiences across all aspects of the curriculum to a range of audiences. Parents are an obvious

audience for this purpose whose vital role in making time to talk and listen to their children should be strongly encouraged.

3.10 The perception of primary schools visited by the review is that more children are entering primary schools with impoverished language and poor social development. This issue was also highlighted in the Bercow report¹³ and in recent research. Terms such as 'language delay' and 'word poverty' have been coined to describe the impact on children's language development of unfavourable background conditions, which are sometimes wrongly regarded as outside the control of the school.

3.11 Research in the USA (by Risley and Hart¹⁴) has shown that by the age of 5 some children from impoverished language backgrounds have heard 32 million fewer words than the average 'middle-class' child. Other studies have shown that, by age 3, children from impoverished environments use less than half the number of words spoken by their more advantaged peers. Further studies have shown how the

number of books in the home influences children's 'word knowledge' and 'world knowledge'.

3.12 But it is not simply a matter of 'the number of words unheard and unlearned'. As Professor Maryanne Wolf, a highly respected cognitive scientist, explains:

'Unbeknownst to them or their families, children who grow up in environments with few or no literacy experiences are already playing catch up when they enter kindergarten and the primary grades... When words are not heard, concepts are not learned. When syntactic forms are never encountered, there is less knowledge about the relationship of events in a story. When story forms are never known, there is less ability to infer and to predict. When cultural traditions and the feelings of others are never experienced, there is less understanding of what other people feel.'¹⁵

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3.13 Professor Wolf makes two further profoundly important points:

‘Nothing about language development has isolated effects on children.’

‘Many factors that children ‘bring to the table’ in the early years cannot be changed. Language development is not one of them.’

3.14 Concerns that an active, early emphasis on developing all four aspects of language in the early years will somehow reduce the desired breadth and balance of the Early Years Foundation Stage (EYFS) areas of learning and development, and militate against important aspects of children’s personal, social and emotional development, are seriously ill-founded. The reverse is far more likely to be true. Intensive enrichment of all four strands of language development will massively benefit young children’s all-round development and propensity to learn.

3.15 Teaching children to express themselves intelligibly through well-formed speech and to listen attentively

so as to understand what is said to them is crucial to their educational success. The entire curriculum should be fully exploited for this purpose because it not only fosters children’s intellectual development and enjoyment of learning but also boosts their self-confidence, social and emotional development and motivation to learn. This is particularly the case where their spoken language, for whatever reason, is so impoverished on entry to school that it severely obstructs their progress.

3.16 Although all subjects have potential for developing spoken language, some are particularly valuable in this respect. For example, the appeal to primary children of role play, and drama in its various forms, is often used very successfully to develop speaking and listening and leads to other worthy outcomes.

3.17 The powerful, not to say unique, contribution to children’s enjoyment and comprehension of language – and to their emotional development – from deep engagement with story telling and regular exposure to excellent literature

is recognised throughout early years and primary education. This tradition should be strongly upheld alongside the direct teaching of reading and writing discussed below.

3.18 'If they can't say it they can't write it' has become something of a cliché which nevertheless captures the nature of the interdependencies of speaking, listening, reading and writing.

3.19 To strengthen language development, each programme of learning highlights explicit opportunities for children to develop and apply the full range of literacy skills. In the new curriculum children should learn to develop and apply their speaking and listening skills to suit a variety of audiences and for different purposes. They should tell and listen to stories and explore ideas and opinions in both formal and informal settings. They should have opportunities to express themselves creatively in improvisation, role play and other drama activities.

Reading and writing

3.20 A primary teacher once said, 'If children leave my school and can't paint that's a pity, but if they leave and can't read that's a disaster.' The point is well made. However, a broad and balanced curriculum will not set these things at odds so much as mutually reinforce them.

3.21 In order for children to benefit from a broad and balanced curriculum, primary schools have to give priority to teaching those things which give them access to it, at the time when they are mostly likely to benefit. The teaching of beginner readers is a case in point.

3.22 Nowhere is an entitlement to 'quality first teaching'¹⁶ more necessary or important than in equipping every child with a command of reading and writing skills. High-quality wave one teaching which enables children to learn how the alphabet works for reading and writing (i.e. how to decode (read) and encode (spell)) should greatly reduce the number of children who require later interventions to 'catch up' on ground that they should never have lost in the first place.

3.23 The immense benefits to beginner readers and writers is plain to see in those schools where teachers have espoused the 'simple view of reading' and have a good command of the principles and practice of teaching regular, systematic, phonic work as defined in the 2006 reading review.¹⁷

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Routes into reading

*The Deans Primary School, Swinton,
Manchester*

Daily reading in school and at home is central to the curriculum at The Deans Primary School, with a thoroughly prepared and implemented programme of phonic work which focuses on reading and spelling. The focus on reading begins in Reception Year, when teachers hold three reading meetings with parents to encourage and support reading at home. Parents are told that their children need to read at home with them every day. They are also provided with guidelines to help them make the most of their child's reading time, for example helping children to read unknown words and making sure that they have understood what they have read.

The home reading is then checked in the classroom as part of a reading route leading from Reception Year right up to Year 6. This systematic approach – based on structure, repetition and teacher evaluation – is reflected in results, with 100% of pupils achieving Level 5 in English at the end of Key Stage 2. Similar results in science and mathematics suggest that the early focus on reading enhances learning right across the curriculum.

'Our pupils leave Reception Year already able to read and by the time they enter Key Stage 2 they are fluent. This fluency empowers our pupils and enables them to engage with the rich and diverse curriculum we provide'

Frances Hartley, Head,
The Deans Primary School,
Swinton

Children who benefit from this quality of teaching rapidly develop a high degree of 'automaticity'. In other words, they can decode familiar **and unfamiliar** words so effortlessly as to be able to concentrate fully on the meaning of the text, which is the goal of reading.

3.24 The quality of this teaching must be high and should be the standard expected of all primary schools so that the vast majority of children become fluent readers by the age of 7 at the latest. Where the relationship between decoding and encoding is understood and these are taught as reversible processes from the start, children's spelling and handwriting also become increasingly effortless, such that they can concentrate on composing meaningful text. Schools that have developed this degree of teaching expertise report that slow progress, which was often evident in boys when compared with girls, is no longer an issue.

3.25 This suggests that it is far more often the nature of the teaching than

the nature of the child which determines success or failure in learning the 'basic' skills of reading and writing. This is not to say, however, that there is any lack of willingness or capability on the part of primary teachers to develop the required expertise in the teaching of beginner readers once convinced of the of the benefits to children of doing so. Rather, the main obstacles have been long-standing systemic confusion and conflicting views, especially about the teaching of phonics. As more research and practice now converge in strong support of high-quality, systematic phonic work, schools can be confident that their investment in good-quality phonics training for teachers and in good systematic phonic programmes, whether commercial or provided by the National Strategies, will yield high returns for children.

3.26 All that said, there will be a small minority of children, including those for whom the term dyslexia¹⁸ was coined, who display specific difficulties in learning to read. For these children, and those who experience similar difficulties

in learning number skills, schools will need to seek specialist advice (as they do now) and provide appropriate intervention programmes.

The early learning goals for writing

3.27 An additional requirement of the remit with regard to literacy was to review two early learning goals for writing set out in the EYFS. This came about because of concerns that these goals might be overdemanding for young children.

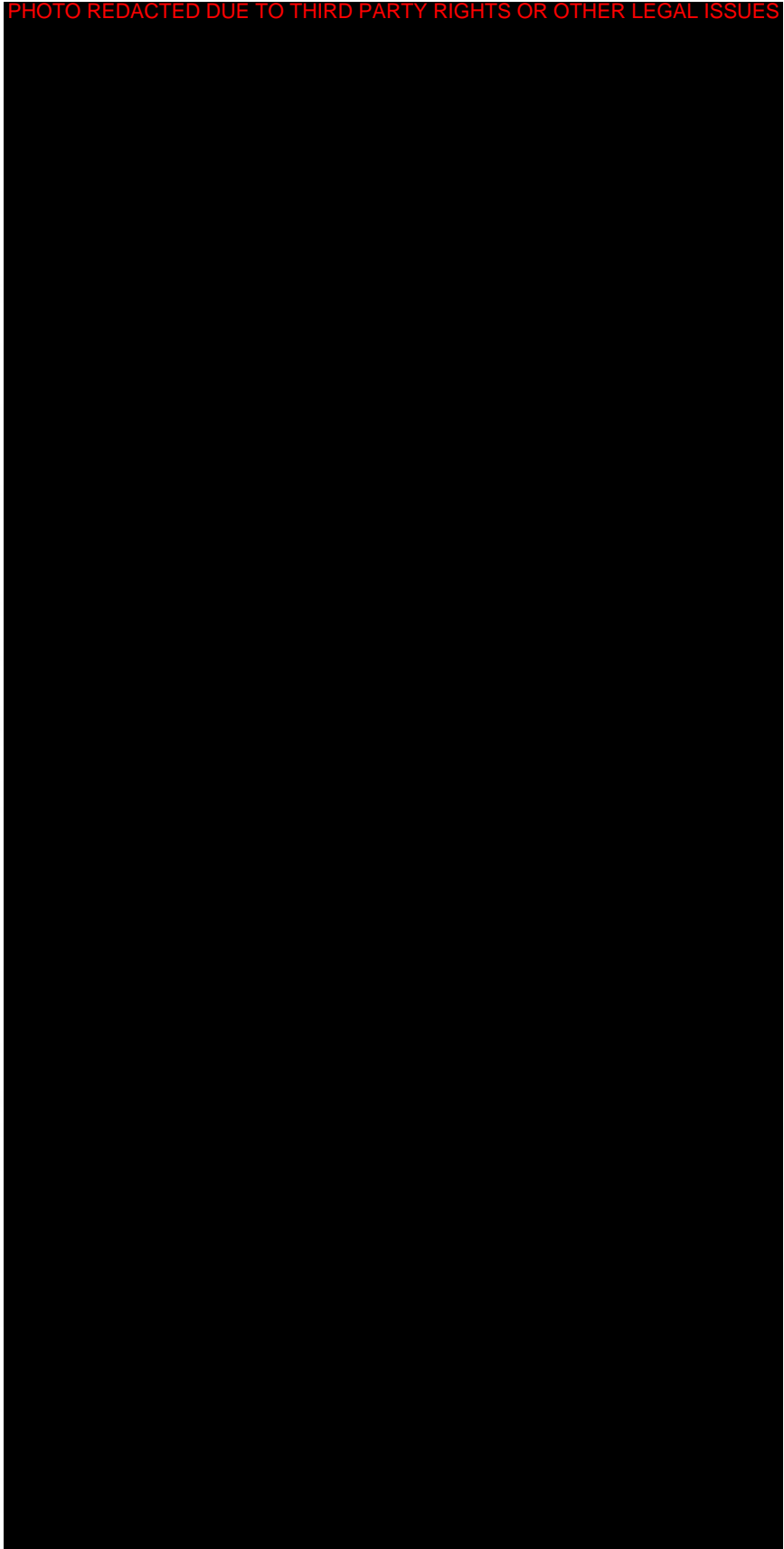
3.28 The early learning goals establish expectations for what most children should achieve by the end of the EYFS (when the majority of children are in reception classes in schools). There are a number of goals spread across six areas of learning and development,¹⁹ and there are statements contained within the framework which set out clearly that children will reach these goals at different times in their development:

'By the end of the EYFS, some children will have exceeded the goals. Other children, depending on their individual needs, will be working towards some or all of the goals – particularly some younger children, some children with learning difficulties and disabilities and some learning English as an additional language.'

3.29 The majority of the early learning goals within the communication, language and literacy area of learning and development are focused on speaking and listening as prime communication skills in their own right and essential for the development of literacy; indeed, research has long supported this position. A smaller number of the goals begin to touch on early reading and writing, with four goals concerned explicitly with writing. Children can:

- use a pencil and hold it effectively to form recognisable letters, most of which are correctly formed (reached by 69.8% of children in 2008);

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Nathan aged 10 years

- attempt writing for different purposes, using features of different forms such as lists, stories and instructions (reached by 63.4% of children in 2008);
- write their own names and other things such as labels and captions, and begin to form simple sentences, sometimes using punctuation (reached by 28.3% of children in 2008);²⁰ and
- use their phonic knowledge to write simple regular words and make phonetically plausible attempts at more complex words (reached by 48.2% of children in 2008).

It is the third and fourth goals above that this review was asked to consider. They are discussed below.

3.30 It is clear from the figures that the initial stages of writing are within the grasp of a majority of children. Although the two goals under review were achieved by fewer children, the fact that they are attained by a significant number suggests that they should be retained. There are a number of other

early learning goals in the EYFS that are attained by similar numbers of children, which are not in dispute. For example, in creative development 30.4% of children in 2008 were able to 'express and communicate their ideas, thoughts and feelings by using a widening range of materials, suitable tools, imaginative and role-play, movement, designing and making, and a variety of songs and musical instruments'. In 2008 in problem solving, reasoning and numeracy 29.5% of children were able to 'use developing mathematical ideas and methods to solve practical problems'. No arguments have been strongly voiced that these goals are inappropriately pitched for young children. It is therefore important to consider why the two writing goals

are called into question while other goals with similar levels of attainment are not.

Are the goals appropriate and is the time span for achieving them sufficiently clear?

3.31 There seems to be widespread misunderstanding of the early learning goals and the time span for achieving them. For example, one press report indicated that the goals are to be achieved 'by the age of 5',²¹ which could mean by a child's fifth birthday, whereas the official guidance of the early learning goals states 'by the end of the year in which they turn 5'. The EYFS framework says quite clearly that children progress at different rates, and practitioners must use their professional judgement in assessing when children should be supported towards the various goals.

3.32 Concerns have been voiced in the sector that challenging literacy goals for some children in their fifth year risk being counterproductive. It is argued

that the two early writing goals in question could encourage practitioners to push children to write before they are ready to do so. Further, writing relies on a strong foundation of speaking and listening and fine motor skills, and disadvantaged children are less likely to have that foundation in place. Thus, for these children writing will be too much too soon. Arguably, it is poor practice that is more likely to set them up to fail, especially if it results in holding back children who are able and want to move on.

3.33 Other concerns arise from a misinterpretation of the goals themselves. This occurs, for example, where the goal about children 'using phonics to write more complex words' is mistaken to mean that they should spell complex words correctly. The early learning goals wording is 'use their phonic knowledge to... make phonetically plausible attempts at more complex words'. This clearly means that credit should be given to children for constructive mistakes when attempting to write words, such as 'frend' for

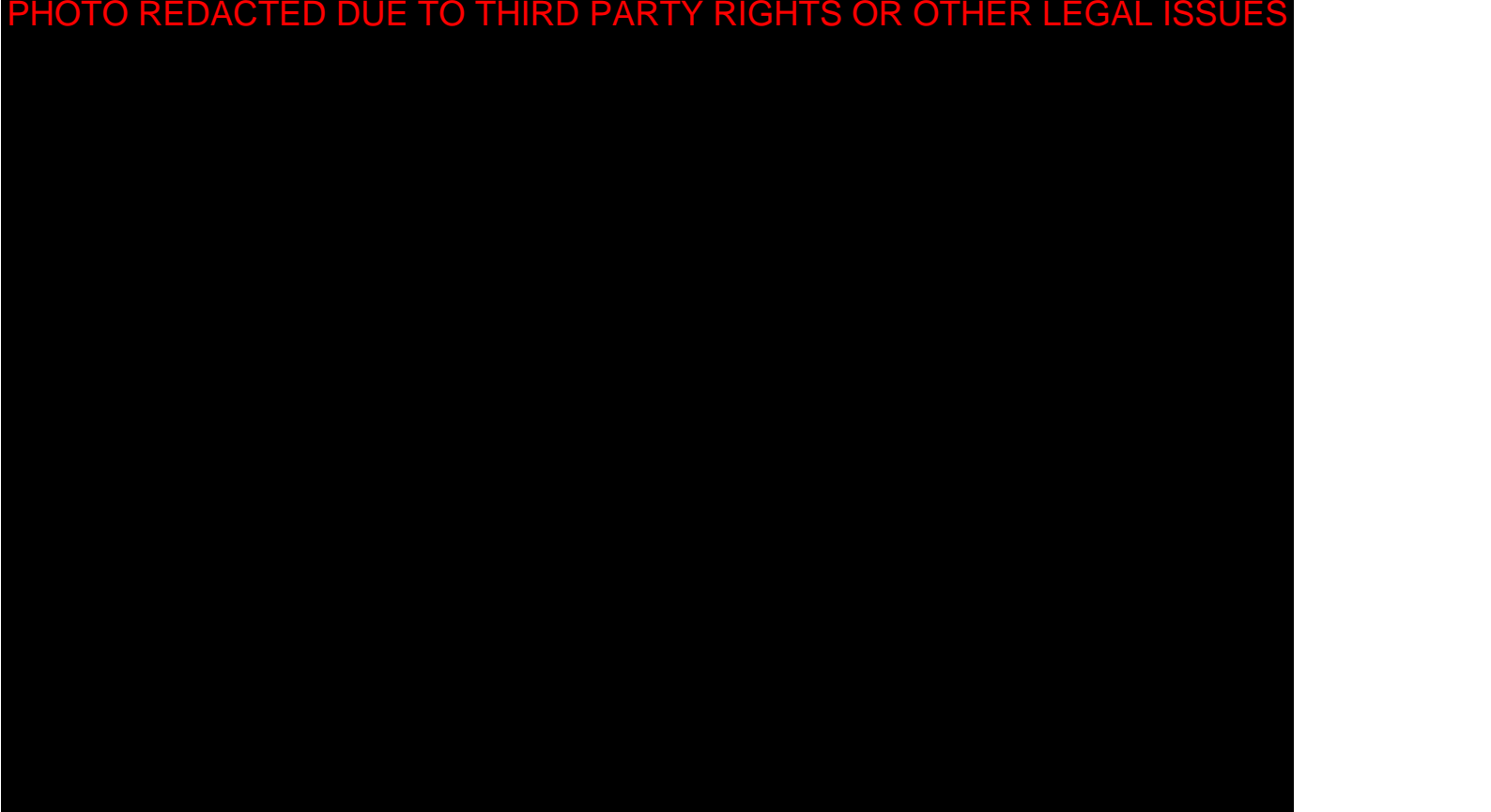
'friend', 'hoam' for 'home' or 'nyoo' for 'new'. This is because these 'plausible attempts' almost certainly mark an important step in children's willingness to tackle spelling by applying their developing phonic skills. Furthermore, being able to communicate their ideas in writing is also very empowering for young children. The fact that adults can read their messages encourages positive 'dispositions and attitudes' which we know are crucial to motivating children to read and write. The DCSF Letters and Sounds programme explains these points in its Notes of Guidance.

3.34 It seems that arguments are often predicated on either confusion about how the goals are framed or on concerns about the capability of practitioners to support children's early writing appropriately. Good practice ensures that a child's early writing is promoted through planned purposeful play, and encouraged at a pace appropriate for each child. While practitioners must guard against pressuring young children to reach any of the early learning goals, they should not limit legitimate

expectations for the progress of those children whose abilities are developing faster than others.

3.35 It is important that the DCSF continues to emphasise the expectation that children will be supported towards all of the EYFS early learning goals through a play-based approach, and to exemplify the kind of play activities that teachers and practitioners can draw on to enable children to reach these goals. In other words, rather than deferring these two writing goals, stronger guidance should be given to make sure that practitioners are as well equipped to foster children's individual early writing abilities as they are in supporting children towards all other early learning goals.

3.36 The EYFS message that children will reach the early learning goals at different points needs to be emphasised and consideration given to raising awareness through practitioner training where there are concerns that the approach adopted in relation to these two goals is misguided.



Numeracy

3.37 That literacy encompasses essential language knowledge, skills and understanding which all primary schools must enable children to acquire is undeniable. Numeracy, a term invented to mirror literacy, merits similar priority. However, experience from the National Strategies shows that schools are sometimes unaware of all that numeracy should cover and so limit opportunities for children to apply the full range of numeracy skills across the curriculum. Of the several definitions of numeracy that exist, the review has settled for the original one put forward by the National Strategies as a working definition to help teachers to plan for numeracy:

'Numeracy is a proficiency which involves confidence and competence with number and measures. It requires an understanding of the number system, a repertoire of computational skills and an inclination and ability to solve number problems in a variety of contexts. Numeracy also demands

practical understanding of the ways in which information is gathered by counting and measuring, and is presented in graphs, diagrams, charts and tables.'

3.38 Definitions of numeracy notwithstanding, the values to children of learning the language of mathematics are clearly stated in the *Williams Mathematics Review*.²² Williams rightly recognised that the content of the National Curriculum for mathematics and the guidance offered by the National Strategies (2006) were good enough to 'continue as currently prescribed subject to any changes which may result' from this review of the primary curriculum:

'The critical importance of engaging children in discussing mathematics is widely recognised. This, of course, includes learning mathematical language. Many practitioners and teachers have grasped this point and, for example, regard number as the "alphabet of mathematics" that should be used copiously in daily discourse with children. Talking

mathematics should extend to high-quality discussion of mathematical investigations that develop children's logical reasoning and deduction, which underpin mathematical thinking. The ultimate goal is to develop mathematical understanding i.e. comprehension of mathematical ideas and applications.¹²³

3.39 Lack of opportunities to apply and use mathematics, which leads to children not understanding what to do when faced with real-life mathematical problems even though they know how to 'do sums', is a common concern in Ofsted findings and is reflected in the *Williams Mathematics Review*:

'The content of the mathematics curriculum in most of the schools surveyed was age-appropriate. However, the majority of pupils had too few opportunities to use and apply mathematics, to make connections across the different areas of the subject, to extend their reasoning or to use ICT. Higher-attaining pupils were not always challenged enough in lessons. Links with other subjects were insufficient.'¹²⁴

3.40 In 2008, the Department for Children, Schools and Families (DCSF) commissioned research from the National Foundation for Educational Research (NFER) to compare the Key Stage 2 mathematics, literacy and science curricula in England with those of other high-performing education systems²⁵ (see Chapter 6). England's curriculum for number was found to be narrower and less demanding than in the majority of other mathematics curricula examined. The review has addressed this through placing a greater emphasis on number, particularly in early primary years, and on developing mathematical understanding through more practical, problem-solving activities. While young children's early interest should be encouraged through broad experiences in mathematics that include more than number work, the message for primary schools is clear: children must be taught how the number system works and develop facility with mental calculations and written working, using calculators and ICT as appropriate.

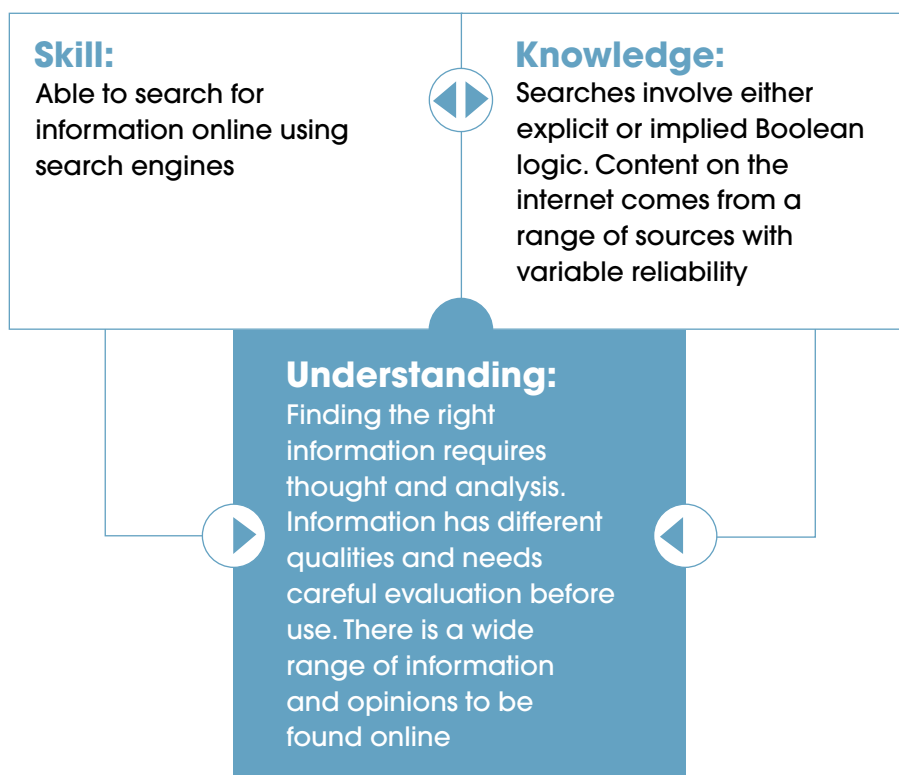
3.41 As with literacy, opportunities to develop numeracy skills are written into each programme of learning so that children develop 'automaticity'. For example, the physical development, health and wellbeing programme of learning provides opportunities for children to use and apply a range of mathematical skills including number, measurement, shape and space, graphing and data handling. Similarly, scientific and technological understanding provides extensively for children to apply mathematical skills, in particular number, measurement, graphing, data handling, interpolation and extrapolation and costing products they have designed and made.

3.42 The aim is that children become 'at home' with number so as to be able to apply number knowledge and skills effortlessly in order to understand and seek solutions to challenging mathematical problems.

ICT

3.43 Respondents to the review recognise that ICT can make the unique contribution of strengthening each of the areas of learning, and literacy and numeracy. Along with literacy, numeracy and personal development, ICT should therefore be at the core of the primary curriculum and be taught both discretely to capture its essential knowledge and skills and through its application across the whole curriculum.

3.44 Even now, a reasonable grasp of ICT is needed in education and employment, and it will become increasingly important to command ICT skills to prepare for technologies of the future. The foundations for this engagement are best formed in primary schools, where children's enthusiasm for ICT is evident. Moreover, we must avoid raising a population divided between ICT 'haves' and 'have nots', because this would pose a considerable threat to both economic wellbeing and social cohesion.



3.45 To argue against the importance of ICT in the primary curriculum is to ignore the increasing digitisation of information worldwide. This will require digital literacy of all children for their full participation in society. Information required for leisure, work, finance, communication and citizenship will be mediated electronically. In all branches of knowledge, all professions and all vocations, the effective use of new technologies will be vital. Children not only need to learn to use specific devices and applications, they also need to understand the fundamental concepts of safe and critical use. The review therefore calls for an understanding of technology to be taught and ingrained in curriculum design and delivery.

3.46 In its contribution to the review, Becta²⁶ reported that although ICT is being exploited more frequently and skilfully in schools than ever before, effective usage is neither consistent nor universal: 'Currently only one in four primary schools is taking full advantage of the curriculum, in a way that directly impacts upon quality and

pupils' achievement. We now need a step change to ensure that all schools use and apply technology to maximum effect.'

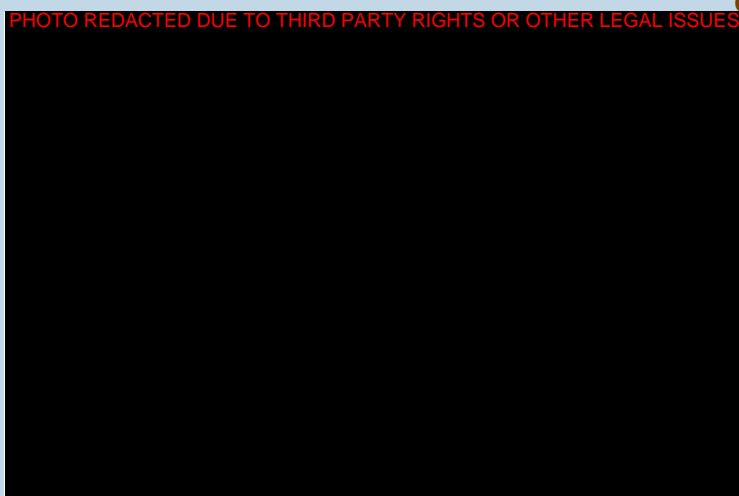
3.47 The good news, however, is that in the one-in-four leading-edge schools visited by the review, the work in ICT was excellent. This makes them invaluable models for others where raising and meeting expectations of ICT, especially for the later primary phase – Years 5 and 6 – will be demanding for teachers.

3.48 The approach advocated in this report of embedding ICT throughout the primary curriculum will yield a number of benefits, such as the use of technology to develop deeper cognitive skills; the education of young people so that all can use technology, with none excluded; and an informed understanding that ensures full 'digital literacy'. Given these benefits, by the end of Year 6 primary children would be well on the way to harnessing technology for lifelong learning.

3.49 Specific requirements for ICT are set out in each area of learning where it contributes directly to the essential knowledge and key skills within that area. The review has been careful to allow flexibility in the curriculum to take account of new developments in technology. Good teaching will be needed to take these requirements forward and to ensure that technology is not used superficially – for instance, that it is not used only to assist with the presentation of work, rather than for researching, analysing and problem solving. The DCSF will need to consider appropriate arrangements to ensure that all schools have the capability and confidence to undertake and develop the ICT skills to which all pupils should be entitled.

3.50 The QCA is working on revised level descriptors for ICT that reflect the raised expectations set out in this report and the draft programmes of learning. The level descriptors will be part of the consultation that follows this report. The expert group on assessment is considering what assessment arrangements should be in place across primary education.

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Small school, big vision

*Clunbury C.E. (Aided) Primary School,
Clunbury, Shropshire*

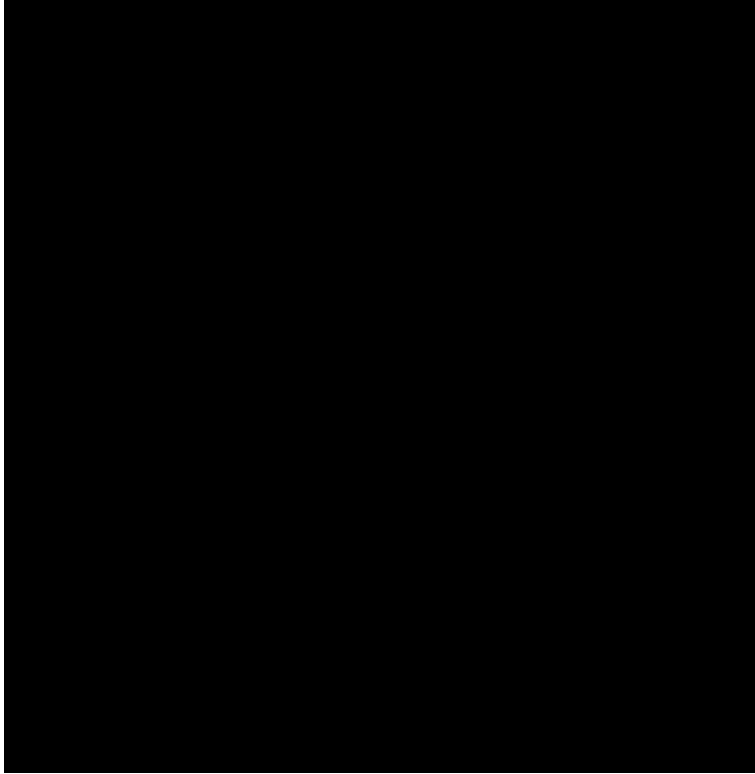
A small school in a rural part of Shropshire, Clunbury has made inspired use of ICT to enhance learning and connect its pupils with the wider world. The school's 65 children have made podcasts and blogs as part of their lessons, while their art is showcased on the school website. Children have a key role in choosing when and how technology is used during the school day, increasing participation and interest in learning.

'Technology has given our pupils a window on the outside world. It's also allowed us to develop a highly personalised approach to learning that values every child and makes learning a stimulating and enjoyable experience.'

Andrew Davis, Head,
Clunbury C.E. (Aided)
Primary School, Clunbury,
Shropshire

Technology empowers learning but does not overpower it. ICT is carefully planned and backed by strong informal monitoring and evaluation – so much so that Clunbury won the Becta ICT Excellence Award in the 'Best Primary Whole School' category in 2007.

The school has also been proactive in forging links with local and national associations. It has a computer club open to the whole community and provides exchange visits for pupils to a large urban primary school in Wolverhampton.



A framework for personal development

3.51 The review was asked to develop a more integrated and simpler framework for the personal skills that all children should develop through their schooling. The proposed framework is set out on pages 76 and 77.

3.52 Along with literacy, numeracy and ICT, personal development is within the Essentials for Learning and Life and should be ingrained within each area of learning and across the curriculum. For many primary schools, personal development is already at the heart of the curriculum. As one primary headteacher on the review's Advisory Group said: 'Developing children's learning and thinking skills, personal skills and emotional and social skills is the reason why I work in primary education.'

3.53 This view typifies what many headteachers have told the review. Schools are unique communities where children learn, among other things,

self-respect and respect for others. Despite major advances in the technologies for learning and ICT, primary education is, and will remain, a person-to-person service, with enormous potential for fostering children's personal development.

3.54 The Children's Plan noted that the 'Government does not bring up children – parents do'. It is encouraging, therefore, that personal development aspects of the curriculum were rated highly by parents in a survey by the DCSF in March into parents' attitudes towards the primary curriculum. Some 85% of parents with children between 4 and 10 years of age agreed with the statement that life skills, such as teamwork, effective communication and creative thinking, were important skills for children to learn during primary school. The same percentage of parents also felt that life skills were as important to acquire as English and mathematics. Primary schools have considerable advantages, including working with parents to foster children's personal development at a highly formative early stage.

Home and school community

3.55 Young children's personal development thrives best in a safe but adventurous community of their peers as they move from the closeness of the family to the wider communities of the nursery and primary school. In these wider but still close-knit communities, they learn much by example in the daily round of living together. It is here that they learn to self-regulate their behaviour as consistent boundaries are set by adults for what is acceptable and what is not.

3.56 For example, they quickly learn to play simple games by the rules, set rules for their own play activities, take turns, give and receive help from others in a wide range of circumstances and share things fairly, and they learn how to protest when they are treated unfairly. They begin to learn the basic rules and skills for keeping themselves healthy and safe, and they learn how to make friends and be resilient in the face of disappointment. These are valuable first steps in children's personal development as they progress through the primary years.

3.57 It has to be remembered that the same teacher will nearly always teach most of the curriculum to the same primary class for a whole school year. So it is the class teacher who is most often best placed to decide where and when to teach the various aspects of personal development.

3.58 As well as planning work, primary teachers are invariably skilful opportunists, always ready to capitalise on the unexpected to build from children's interests. For example, when a 5-year-old announced, 'My new baby brother was born last night', what followed was a lively class discussion covering several aspects of personal development: thinking about the care of babies, how to hold them, why they are weighed frequently, and why milk is better than water for feeding them. This was followed by an invitation to mum and baby brother to visit the class to celebrate the baby's birth and learn more about how to care for him.

Essentials for Learning and Life

Literacy

Focus:

Children use and apply their literacy skills confidently and competently in their learning and in everyday contexts. They convey ideas and opinions clearly, and respond creatively and critically to a wide range of information and ideas.

Children learn how to:

- 1 **read fluently, listen and respond critically** to texts of all kinds, on paper and on screen, in order to access ideas and information;
- 2 **talk clearly and confidently** about their thoughts, opinions and ideas, listening carefully to others so that they can refine their thinking and express themselves effectively;
- 3 **write, present and broadcast** a range of ideas, in a wide variety of forms and with awareness of different audiences and purposes, and communicate these ideas with accuracy on paper, on screen and through multimodal texts; and
- 4 **analyse, evaluate and criticise** a range of uses of language in order to draw out meaning, purpose and effect.

Numeracy

Focus:

Children use and apply mathematics confidently and competently in their learning and in everyday contexts. They recognise where mathematics can be used to solve problems and are able to interpret a wide range of mathematical data.

Children learn how to:

- 1 **represent and model situations in mathematics**, using a range of tools and applying logic and reasoning in order to predict, plan and try out options;
- 2 **use numbers and measurements** to support both accurate calculation and an understanding of scale, in order to make reasonable estimations;
- 3 **interpret and interrogate mathematical data** in graphs, spreadsheets and diagrams, in order to draw inferences, recognise patterns and trends, and assess likelihood and risk; and
- 4 **use mathematics to justify and support decisions and proposals**, communicating accurately with mathematical language and conventions, symbols and diagrams.

ICT capability

Focus:

Children use and apply their ICT knowledge, skills and understanding confidently and competently in their learning and in everyday contexts. They become independent and discerning users of technology, recognising opportunities and risks and using strategies to stay safe.

Children learn how to:

- 1 **find and select information** from digital and online sources, making judgements about accuracy and reliability;
- 2 **create, manipulate and process** information, using technology to capture and organise data, in order to investigate patterns and trends; explore options using models and simulations; and combine still and moving images, sounds and text to create multimedia products;
- 3 **collaborate, communicate and share** information using connectivity to work with, and present to, people and audiences within and beyond the school; and
- 4 **refine and improve their work**, making full use of the nature and pliability of digital information to explore options and improve outcomes.

Learning and thinking skills

Focus:

Children have the skills to learn effectively. They can plan, research and critically evaluate, using reasoned arguments to support conclusions. They think creatively, making original connections and generating ideas. They consider alternative solutions to problems.

Children learn how to:

- 1 **investigate**, asking relevant questions, identifying problems, analysing and judging the value of information and ideas, and questioning assumptions. They plan systematically, using time and resources effectively and anticipating, taking and managing risks;
- 2 **create and develop**, using their imagination to explore possibilities and generate ideas. They try out innovative alternatives, looking for patterns, recognising differences and making generalisations, predicting outcomes and making reasoned decisions;
- 3 **communicate**, interacting with different audiences in a variety of ways and using a range of media; and
- 4 **evaluate**, developing criteria for judging work and suggesting refinements and improvements.

Personal and emotional skills

Focus:

Children recognise how and when they learn best and can identify and address barriers to learning. They take responsibility for their own learning and show initiative, perseverance and a commitment to self-improvement. They recognise that achievement builds self-confidence and resilience, enabling them to deal positively with praise and constructive criticism.

Children learn how to:

- 1 **identify their strengths** and areas for development;
- 2 **manage their feelings**, using appropriate strategies, becoming increasingly aware of their own and others' feelings;
- 3 **reflect** on past achievements and experiences to manage future learning and behaviour;
- 4 **set goals** for their personal development and learning, and work towards them;
- 5 **work independently**, knowing when to seek help, while dealing with pressures and deadlines; and
- 6 **control their own physical movements** in a range of contexts with skill, dexterity and confidence.

Social skills

Focus:

Children develop the skills to work well with other people. They are responsible and adaptable and anticipate others' views and feelings. They appreciate the value of rules for working together, and play an active part in group and classroom activities.

Children learn how to:

- 1 **listen and respond appropriately** to a wide range of people, showing empathy and understanding, and have the confidence to raise their concerns;
- 2 **adapt their behaviour** to suit different situations;
- 3 **work collaboratively** towards common goals;
- 4 **take turns and share** as appropriate, stating their own views and needs;
- 5 **negotiate**, respecting others' rights and responsibilities, and use strategies to resolve disputes and conflicts; and
- 6 **give constructive support and feedback** to benefit others as well as themselves.

Personal development in the National Curriculum

3.59 In the existing primary curriculum the non-statutory framework for personal, social and health education (PSHE) and citizenship offers guidelines to schools about what children should learn about themselves as developing individuals and as members of their communities. In Key Stage 1 the guidelines build on the EYFS framework for personal, social and emotional development. By Key Stage 2, however, the reach of PSHE extends considerably to reflect important and necessary links between children's growing understanding of themselves as individuals and social beings and their understanding of themselves as members of communities and wider society.

3.60 Many worthy but disparate elements such as financial capability, economic understanding, obesity, sex and relationships, drug misuse and e-safety have been added to the PSHE stock of content. It is not surprising

that deep concerns about these matters cause society at large to look to schools to teach these things at an ever earlier age. However, if PSHE content becomes disproportionate in its demands on primary schools the effects of this may be counterproductive. In addition to PSHE content, there is also a set of general skills and attitudes that children need to practise and develop over the course of their primary education. The challenge is to provide a clear and coherent framework for dealing with the wide range of issues within personal development without overburdening teachers.

3.61 Currently there is no single comprehensive framework that sets out in one place all of the elements of personal development that primary schools need to develop in their pupils. This can be confusing for schools, as many of the programmes overlap and some of them use similar terms to mean different things.

3.62 Over the past few years increasing numbers of schools have adopted commercial schemes or developed existing approaches to personal development. Two prominent approaches are of interest:

- the Social and Emotional Aspects of Learning (SEAL) programme developed by the National Strategies as part of the behaviour and attendance strategy; and
- the framework for personal, learning and thinking skills set out in the secondary curriculum, which is used by some primary schools.

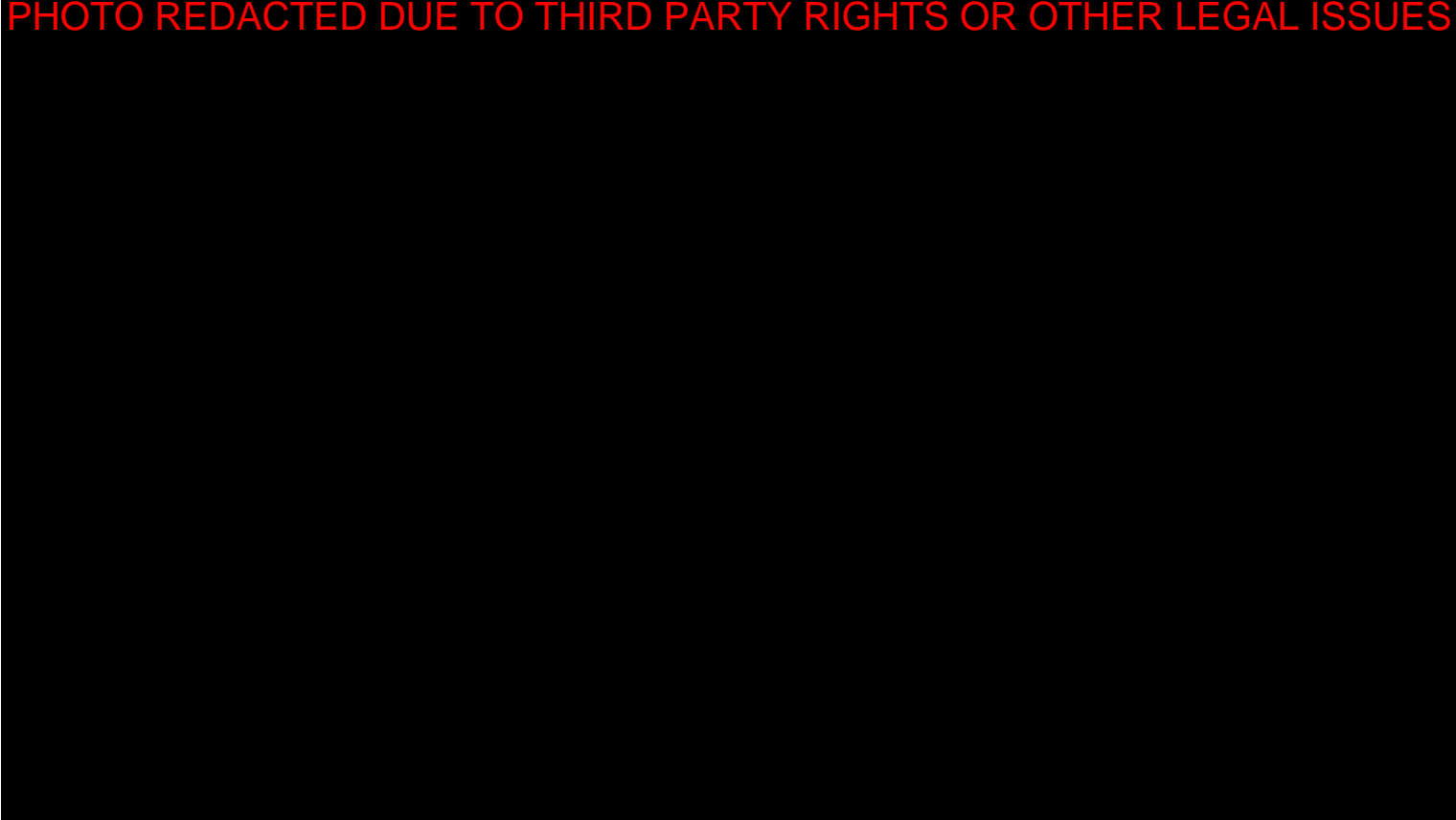
3.63 The framework proposed by the review accommodates these approaches but includes other elements essential for personal development that they do not cover. The proposed framework is set out diagrammatically on pages 76 and 77.

Bringing the personal development framework to life

3.64 The personal development framework has a number of dimensions:

- the personal skills and dispositions that children develop across the curriculum as a whole;
- the underpinning knowledge, skills and understanding that define high-quality personal development; and
- the potential of the class community within the wider school community for fostering personal development.

3.65 As schools plan for personal development they will need to identify those elements to be taught discretely and those which are best learned in the broader context of day-to-day living and throughout the curriculum.



3.66 All six areas of learning contribute significantly to personal development. For example:

- understanding physical development, health and wellbeing – brings together much of the body of knowledge, skills and understanding that children need to be taught in order to promote their personal, physical, mental and economic wellbeing. This includes teaching children about the importance of a healthy diet and exercise, the risks of drug and alcohol misuse, and financial capability, and, for older children, preparing them for the onset of puberty;
- the historical, geographical and social understanding programme of learning includes teaching children about right and wrong, fairness and unfairness and justice and injustice; to understand the way in which laws are made and society is governed; and to engage actively with democratic processes. This area also promotes working collaboratively to build an understanding of important matters such as nurturing the quality of and sustaining the environment;
- scientific and technological understanding contributes strongly to children's understanding of how to stay healthy through learning how the human body systems work and about the causes of disease; and
- understanding English, communication and languages allows children to express their own emotions through language and increase self-awareness as well as empathy with and understanding of others. It also provides opportunities to listen and respond, work collaboratively, negotiate and give constructive feedback.

3.67 The challenge for primary schools is to make sure that all children capitalise on this rich range of opportunities. Personal development by its very nature is about inclusion, respect for the person and equality of opportunity. The skills of leadership, for example, are unlikely to develop if a child never gets the chance to lead, with all the implications this has for self-belief

3.68 The overarching framework for personal development, combined with opportunities across the curriculum for developing personal development, will help teachers to make the most efficient and effective use of the time available.

4. Transition and progression from the EYFS and through Key Stages 1 to 3

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'Transition from EYFS to primary school can be difficult for some children. As part of supporting this transition, you may want to consider how the curriculum can support better use of information from their feeder early years settings and reception classes so that they understand their new pupils better and personalise their learning accordingly.'

- **Entry to primary school can be problematic for summer-born children. For example, summer-born children are up to a year younger than their classmates when they sit tests at the end of each Key Stage. This can affect their performance right through school age up to the age of 16... Given the concerns expressed to us by parents I would like you to consider whether it would be appropriate to allow more choice and flexibility in start dates for children entering primary school.**
- **You will also want to consider whether some aspects of the EYFS should be extended into the primary curriculum... including social and emotional areas of development and widening the curriculum opportunities for child-initiated and play-based activity.'**

Extract from the review's remit

4.1 The term 'transition' is usually taken to mean the time when a child moves between schools or enters some form of pre-school provision (e.g. moving from home to nursery). The other transition that most primary children undergo, of course, is within school as they move yearly from class to class. How well these transitions – within and between schools, and from home to pre-school – are managed will influence how well

children progress. It follows that local providers and schools should establish policies designed to sustain children's progress across these transition points.

4.2 Much valuable work has been done to set appropriate expectations of children's attainment and to frame level descriptors to help primary schools plan for children's progress. In recent years this has been complemented by

innovative work on Assessment for Learning (Afl) and Assessing Pupils' Progress (APP).

4.3 These initiatives have enormous potential for strengthening transitional arrangements. For example, by making sure that high-quality, personalised information about their learning follows every child, receiving classes and schools can build quickly on a child's prior learning. Parents, too, can benefit from access to this information as they seek to support children's learning at home. This chapter therefore first describes the current position on these initiatives in the expectation that they will be further developed and are fully in place by 2011 when the new curriculum is introduced.

Attainment targets and level descriptors in the National Curriculum

4.4 The National Curriculum has always been composed of programmes of learning, attainment targets and assessment arrangements. The

attainment targets complement the teaching requirements by outlining expectations of pupil attainment. These expectations are organised into a scale of eight levels (exceptional performance acts as a ninth level at the top) for each subject. The scales are not specifically related to key stages and are intended to encourage recognition of achievement and progress regardless of age. At the moment, primary teachers are required to assess children in relation to national standards in English, mathematics and science at the end of Key Stages 1 and 2. At Key Stage 1, this takes the form of teacher assessment, informed by the flexible use of statutory tests or tasks. At Key Stage 2, it involves two elements – a teacher assessment judgement and the outcome of externally marked National Curriculum tests.

4.5 The eight-level scales will be retained for all existing National Curriculum subjects at Key Stage 3. Minor changes have been made to the wording of level descriptors for Levels 1–3 to take account of this review. Draft changes were made to Levels 4–8 as part of the review of the secondary

curriculum. The revisions to Levels 1–3 will make the scales fully inclusive for secondary-aged pupils. The revised scales for Levels 1–8 will be part of the wider public consultation along with the programmes of learning.

4.6 The English, mathematics and science scales must be used by primary teachers, whereas the remainder will be available for optional use and reference.

4.7 The changes to Levels 1–3 are minimal and do not require changes to the National Strategy frameworks for English and mathematics or to criteria established for APP. Primary teachers should continue to use the National Strategy frameworks for planning purposes.

4.8 There will be more significant changes to the ICT levels to reflect the raised expectations set out in this report and the draft programmes of learning. The level descriptors will be part of the consultation that follows this report.

Assessment for Learning

4.9 Assessment is an integral aspect of all teaching and learning; it includes but involves far more than testing. The Government's announcement in October 2008 of an end to statutory Key Stage 3 tests and of continuing work on the possibilities for improving aspects of assessment in Key Stage 2 is timely. Full account will no doubt be taken of the highly promising work on assessment where day-to-day practice, building on the principles of AfL, is combined with more consistent periodic judgements using the materials known

as Assessing Pupils' Progress (APP). Moreover, the Secretary of State has asked that the DCSF expert group on assessment receives information from this curriculum review that is relevant to its remit.

4.10 The ambitions of the Government's three-year AfL strategy (May 2008) are to ensure that:

- **every child** knows how they are doing and understands what they need to do to improve and how to get there. They get the support they need to be motivated, independent learners on an ambitious trajectory of improvement;
- **every teacher** is equipped to make well-founded judgements about pupils' attainment, understands the concepts and principles of progression and knows how to use their assessment judgements to forward plan, particularly for pupils who are not fulfilling their potential;
- **every school** has in place structured and systematic assessment systems for making regular, useful, manageable and accurate assessments of pupils, and for tracking their progress; and
- **every parent** and carer knows how their child is doing, what they need to do to improve and how they can support the child and their teachers.

4.11 To support these aims, training for primary schools on APP began in the summer of 2008 and many have been starting to work with APP materials since September 2008. Introducing and supporting APP is the major priority of the National Strategies' continuing

professional development programme in 2008–09 and beyond and is integral to the AfL strategy. The QCA has now completed the extension of the materials to cover Key Stage 1 in reading, writing and mathematics, and this has emphasised the continuity of assessment practice with that of the Early Years Foundation Stage Profile. APP materials to support primary science are being piloted and finalised during 2009. Many primary schools will be trying out the approach during this school year, and APP should be widely in place across all year groups by the time the new curriculum is implemented in 2011.

4.12 APP should enable teachers to:

- recognise secure evidence of children's learning in essential areas such as reading, writing and mathematics (and potentially science);
- make consistent, periodic assessments of children's strengths and weaknesses in relation to national standards; and
- use this information to plan for better learning and further progress.

4.13 When fully developed, APP should:

- reduce teachers' reliance on testing as the main source of evidence for pupils' performance in relation to national standards;
- vastly improve the quality of feedback for children and their parents; and
- enable the use of assessment to focus teaching more aptly on the learning requirements of the child.

4.14 Inspection reports suggest that schools differ markedly in the extent to which they help children apply and refine their reading, writing, speaking, listening and numeracy skills across the rest of their learning. APP should contribute significantly to a high-quality, broad and balanced curriculum that provides ample opportunities for these skills, once taught, to flourish and be tracked in all areas of learning.

Entry to primary school

4.15 The remit requires the review to consider age-related differences in particular and to recommend what might be done to make sure that the needs of 'summer-born' children are fully met.

4.16 In making recommendations on this aspect of its remit the review anticipates that several important, interdependent factors will be in place in the near future:

- children will be entitled to more pre-school provision from 2010;
- Year 1 teachers will have opportunities to work more closely with Reception Year teachers on young children's Early Years Foundation Stage (EYFS) Profiles;
- the EYFS will be subject to review in 2010, making it possible to take account of best practice in forward planning; and
- the six areas of learning for the primary curriculum will strengthen continuity with the EYFS from 2011.

4.17 Taken together these factors should offer considerable flexibility, for example to strengthen learning through play and strongly support young children's progress and wellbeing over the three highly formative years linking pre-school provision with the Reception Year and into Year 1, as discussed below.

4.18 The latest a child can start school in England is at the beginning of the term immediately after their fifth birthday. The vast majority start school before they are 5 in what is commonly known as a reception class. These days the transition is far more likely to be from a variety of early years settings to a primary school reception class than directly from home.

4.19 Considerable physical, cognitive, social and emotional differences are commonly observed in the annual cohorts of young children starting school. Some of these differences are associated with the different rates at which children mature; others are due to their background experiences; and others relate to their age. Some children will be 10 or 11 months younger than their peers when they start school.

4.20 A study by the Institute for Fiscal Studies (IFS) in October 2007 of the impact of children's date of birth on their educational performance highlighted three main areas of concern:²⁷

- **'The education penalty':** August-born children tend to do less well in national assessments than their autumn-born peers. This trend persists across all key stages and across all academic assessments. The achievement gap is widest at the start of schooling

and, although it narrows over time, for some pupils it is still significant at ages 16 and 18. Summer-born children are also slightly less likely to go to university than children born earlier in the school year.

- **Regarded as immature:** Summer-born children risk being treated as 'immature' in comparison with their older classmates, giving rise to lack of confidence and low self-regard that may limit expectations of them and their expectations of themselves.
- **Engagement:** The youngest children may suffer from less free pre-school learning than older children. They may also benefit less from what they do experience if older children are allowed to dominate learning opportunities and resources.

4.21 Since the IFS report was published, two other studies that focus on the issue of summer-born children have been published. On behalf of the review, the National Foundation for Educational Research (NFER) was commissioned to review the international literature on birth date effects,²⁸ and Cambridge Assessment²⁹ published its own review of the literature. All these studies show that the issue is complex and that no single policy response provides all the answers.

4.22 It is important to recognise that the penalty which many summer born children experience can persist well beyond the transition to primary school. Therefore primary schools need to be well informed about what might be done to lessen age-related effects on the progress of young children. The review

accepts that good practice for summer-born children is good practice for all children insofar as it must be such as to foster their different but developing abilities at an appropriate pace.

Pre-school experience

4.23 Since the last review of the curriculum, children now have more access to early years provision, whether in school or other early years settings. They are likely to have received the current entitlement of all 3- and 4-year-olds to at least 12.5 hours of free early education a week. The Government is committed to extending this so that, by 2010, all children will be entitled to 15 hours of free early education per week. As far as children approaching school age are concerned, a key requirement is that all provision for children under 5, including reception classes, is now subject to the EYFS requirements.

4.24 Research shows that attending a good-quality early years setting rather than none has long-term benefits for a range of educational outcomes through to at least Year 6. For example, the Effective Pre-School, Primary and Secondary Education (EPPSE) project found that after the influence of background factors had been taken into account, pre-school (both nursery and reception class) quality and effectiveness remain statistically significant predictors of attainment and social/behavioural outcomes in Year 6, and of progress across Key Stage 2.

4.25 For academic outcomes, particularly mathematics, and for all social/behavioural outcomes, having attended a high-quality early years setting is found to be of particular benefit to boys, children with special educational needs (SEN) and children with multiple disadvantages.

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Matching provision to children's developing abilities

4.26 Responses to the interim report confirmed that some parents would like their children to enter reception class in the September after their fifth birthday rather than entering Year 1. Others, as mentioned in the interim report, had wanted their children to enter a reception class in the September immediately after their fourth birthday, only to find that some schools would not let them enter until the following January or later.

4.27 Opinion was divided on the proposal in the interim report that the preferred approach should be for children to enter a reception class in the September immediately after their fourth birthday. Some respondents questioned whether reception classes are the most appropriate place for 4-year-old children at all. However, two important points need to be borne in mind. First, the majority of children are already in school reception classes. An analysis based on National Strategies data shows that 94 of 150 local

authorities operate a single point of entry admission policy. Secondly, children of this age will be receiving EYFS provision regardless of the setting/school they are in. So the debate is less about whether they should be there than how to secure high-quality provision that is best suited to their development and what sort of flexibility should be built into the system to cater for the full range of children's needs.

4.28 The EYFS, compulsory since September 2008, provides a foundation for learning and development which is appropriate for young children and prepares them for primary school. Evidence from Ofsted and the NFER, however, suggests that primary schools are better at managing pastoral aspects of transition than managing continuity with the primary curriculum and children's learning in the early years. Year 1 teachers who made insufficient use of information provided from the Reception Year were more likely to fail to build effectively on pupils' prior knowledge, skills and understanding.³⁰

4.29 The move from the Reception Year to Year 1 often brings a shift in pedagogical style, from the largely play-based philosophy of the EYFS to the more subject-oriented teaching associated with the National Curriculum. Teachers report that those most at risk from this shift are summer-born children, children who are described as 'less able', those with SEN and those for whom English is a second language.³¹

4.30 Despite these differences, deferring school entry on the grounds of a child's date of birth, language delay or social factors, for example, as their peer group moves on from early years provision to a reception class, is shown by recent research to be a questionable response.

4.31 The NFER literature review clearly states that:

'The practices of deferring entry for children not considered to be "ready" for school or requiring children to repeat a year are *not* recommended for addressing relative age effects.'

4.32 What the NFER concluded from its literature review was that:

'The evidence suggests that the Government's attention should be focused on ensuring developmentally appropriate and positive experiences for relatively younger children in the primary school and also on ensuring that the process for identifying children with special educational needs takes account of relative age. This, together with taking account of relative age effects in assessment results, would help to ensure that differences in children's

birth dates do not become a continuing source of disadvantage for children and young people.'

4.33 Parents concerned, for whatever reason, about how well their child will thrive in a school environment will need clear guidance on the optimum conditions and the benefits to children of entering a reception class in September immediately after their fourth birthday. The option of part-time attendance should be available for children whose parents, with the advice of schools, believe this would ease entry to school. It is important to be clear that this is not a recommendation to lower the statutory school starting age rather than give parents a greater choice, and to achieve a better match of provision to need in the Reception Year.

Planning for progression in Year 1

4.34 A survey by Ofsted in 2007 noted that few schools had successfully linked the areas of learning and development in the EYFS with the related subjects of the National Curriculum in Key Stage 1.³²

4.35 The lack of clear links between the EYFS and Key Stage 1 meant that 8 in 10 schools in the survey began to introduce the subjects of the National Curriculum at the start of the autumn term, irrespective of the children's prior attainment. Two in three of the schools taught a literacy hour or daily mathematics lesson within a few weeks of the start of the school year.

4.36 The interim report showed how some Year 1 teachers and teaching assistants overcame the lack of clear links between the two phases by spending time in reception classes to see how they might better build on their work. For example, in many schools, work in the autumn term of Year 1 showed more flexibility, including better use of outdoor activities, and more attention to pupils' social development and to planning experiences to enable children to boost their speaking and listening skills and concentrate for longer.

The Early Years Foundation Stage Profile

4.37 The major piece of information available to Year 1 teachers about each child is the Early Years Foundation Stage Profile (EYFSP). Each child has a profile completed in the school year that they turn 5 setting out their progress and achievement.

4.38 Ofsted found that just over half of Year 1 teachers had used the EYFSP but few had found it particularly helpful. The EYFSP confused many teachers by including assessments 'beyond the level of the early learning goals' but not linked explicitly to the level descriptors in the National Curriculum. Given the amount of time spent in completing the EYFSP and its potential value as a personal record of each child's previous experiences and achievements it is important for schools to make better use of it.

4.39 Before and following the interim report, respondents to questions said that effective communication between staff was crucial for establishing good transitional arrangements. Some went further and said that dedicated time was needed for discussion between providers and receivers to eradicate unwanted transfer information and concentrate effort on what information is essential to secure curricular continuity and children's progress.

4.40 The EYFS requires early years providers (including teachers in reception classes) to set up a dialogue with parents. Ofsted's survey found that only a few parents reported that they received the EYFSP profile or were invited to discuss their child's progress. The majority of profiles given to parents contained only ticked boxes to show their child's level of development. However, where comments were included on the EYFSP, they were valued by parents.

4.41 Some parents were concerned that when their summer-born child does start either Reception Year or Year 1, teaching staff will not have sufficient understanding to be able to interpret and respond to the child's individual needs adequately.

4.42 The DCSF should consider what might be done to make sure that parents receive good-quality written information on their child's progress and have opportunities to discuss it with EYFS practitioners.

The new curriculum

4.43 The proposed primary curriculum builds on the EYFS and through the areas of learning towards the principal subject disciplines. The early phase of curricular progression in the draft programmes of learning show how the primary curriculum dovetails with the EYFS. Curriculum content is generic to the area of learning rather than organised by subjects as it is in the current Key Stage 1 programmes of learning.

4.44 This should enable schools to plan a curriculum in Year 1 that is more aligned to the six areas of learning and development in the EYFS, while ensuring appropriate attention continues to be paid to developing speaking and listening, early reading, writing and number work. Chapter 3 of this report explains how each area of learning contains ample opportunities to develop children's speaking and listening, early reading, writing and work on understanding the number system.

4.45 To achieve this, however, Year 1 teachers will require a sound understanding of the EYFS in order to make the most effective links to the National Curriculum and to enable them to support children who are still working towards the early learning goals.

4.46 Although the six areas are not identical to those set out in the EYFS, they provide teachers with the flexibility to match the curriculum to the individual needs and previous experiences of the children in Key Stage 1 classes. This is an important step in removing the complexities previously faced by the youngest school-aged children as they moved from six areas of learning and development straight to 12 subjects.

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Support and motivation

Mills Hill Primary School, Oldham

All learning at Mills Hill Primary School, near Oldham, starts with what the pupil knows and builds from there.

Each child receives regular personal assessments under the school's comprehensive Assessment for Learning programme. This determines the level of support needed, from targeted support for any child achieving below expectation for their age to extension activities for those able to move at a faster pace.

The school continually strives to engage the child's interest and motivation to learn, for example through links with other schools. Pupils are in regular contact with a range of Oldham schools and exchange emails with pupils at the Hawston Primary School in South Africa. This not only helps them learn about other countries and cultures but also develops their social skills, a powerful tool for learning. This emphasis on personal support and skills for learning has a positive impact on children's development. While at Key Stage 1 Mills Hill ranks below the national average, its Key Stage 2 results are in the top 8% in the country. The head also receives very positive feedback from secondary schools on how well prepared his pupils are for Key Stage 3.

'Our curriculum provides a context for real-life learning through local, national and international partnerships that support learners' development as global citizens and members of a culturally rich community.'

Darran Lee, Head, Mills Hill Primary School, Oldham

4.47 Shortly after the publication of the interim report, teachers were asked: ‘To what extent would you agree that areas of learning build bridges from the EYFS into Key Stage 1?’³³ Overall their views were very positive and are shown in the table below:

Primary teachers (%)	
Strongly agree	40
Agree	45
Disagree	1
Strongly disagree	1
Don't know/not sure	13
Number of teachers	643

The importance of play

4.48 The review received many representations, not least from parents, requesting that the primary curriculum provide more opportunities for well-structured, exploratory play. Parents want their children to learn and make good progress; they also want them to enjoy learning.

4.49 Play is not a trivial pursuit. Drawing on a robust evidence base, the interim report highlighted the importance of learning through play, particularly for young children. The purposes of play in promoting learning and development should be made explicit and planned opportunities made to fulfil them in the primary curriculum.

4.50 Although it benefits young children individually to have ample space and time to play, investigate and explore, they benefit equally from learning together through shared play and

planned group activities in which adults stimulate and challenge their thinking. Learning together is the crucible for language development, learning to co-operate, learning the rules of good behaviour and much else. The three ways of organising learning – whole class, group activities and one-to-one teaching – remain valid from the start of the Reception Year and depend on teachers’ professional judgements of how best to deploy them.

4.51 These ways of organising learning were evident in all the good reception classes visited by the review and greatly helped summer-born children to make a good start at school. Moreover, an obvious element of the good practice observed in reception classes was the simple but important fact that teachers and teaching assistants were fully aware of which children were summer-born. Adults made sure that these children were not elbowed out of vital opportunities for learning or overwhelmed by the older children. For example, time was made for them to learn as a group, with care taken to see that they had ample opportunities for active learning, such as outdoor play.

Primary to secondary transfer

What are the main concerns?

4.52 In countries where there is a transfer from primary to secondary school, this usually involves the movement of pupils from a small school community and a single class teacher to a large school community

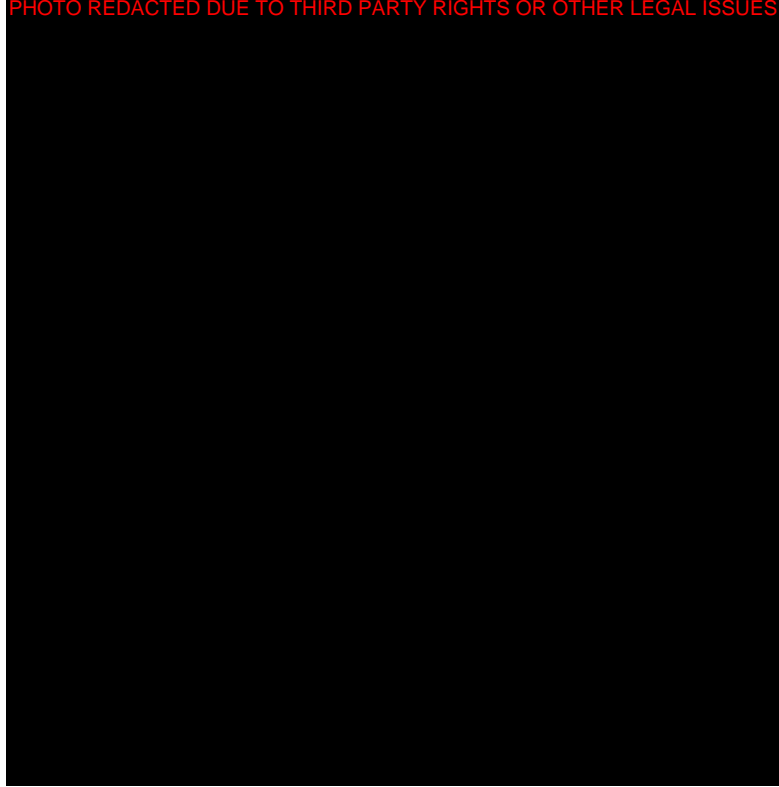
with numerous teachers. Evidence from the literature suggests that this may contribute to post-transfer dips in motivation or attainment. There is evidence that performance in mathematics, science and mother tongue language is affected, but there is a lack of evidence regarding how this transfer affects performance in other subjects.

4.53 The evidence from England and other countries suggests that, while transfer may be a major cause of dips in children's performance, the point at which transfer occurs is less important than the management of the process. Policy responses have therefore included reducing discontinuities in approaches to teaching, and in the content and organisation of the curriculum. The international evidence emphasises the importance of structuring a curriculum that is relevant and meaningful to learners, and monitoring their progress to make sure that levels of challenge are appropriate to their different rates of learning.

Continuity and progression

4.54 Chapter 2 explains how the proposed curriculum design will help a classroom teacher to see how, within programmes of learning, the curriculum should broaden and deepen as children's capabilities develop from the age of 5 to 11.

4.55 The early phase of curricular progression in the programmes of learning show how the primary curriculum builds on prior learning and experience from the EYFS. In the early phase, content is more generic to the area of learning. By the middle phase, primary schools will have the opportunity to organise curricular content more as subject disciplines if they judge this appropriate. In Years 5 and 6, the later phase curricular content can be increasingly configured as subjects to help ease transition into Key Stage 3.



4.56 The NFER teacher survey in November 2008 also asked primary teachers: 'To what extent would you agree that areas of learning provide a foundation for more specialist subject teaching in secondary school?'³⁴ Although the results are less conclusive than views on transition between EYFS and primary settings, teachers generally agreed that the new curriculum will support transition.

Primary teachers (%)	
Strongly agree	14
Agree	37
Disagree	8
Strongly disagree	1
Don't know/not sure	40
Number of teachers	643

4.57 Because children progress at different rates it is important for secondary schools to receive reliable information from primary schools about their prior learning and attainment. However, secondary teachers often express longstanding concerns about

the accuracy of information received from primary schools. For example, when forming ability groups in Year 7, the results of internally administered tests are preferred over the information provided by primary schools. This includes Year 6 National Curriculum test scores, which some secondary schools do not accept as a true picture of children's performance. One reason suggested why this may be so is the belief that 'cramming' for Year 6 National Curriculum tests often takes place, which leads to an inflated performance on the day of the test that many children are incapable of sustaining.

4.58 Concerns about the accuracy of information received from primary schools in relation to National Curriculum tests are being considered by the expert group on assessment rather than by this review.

The National Strategies

4.59 Outside the National Curriculum, but firmly rooted within the primary curriculum, lie the non-statutory National Strategies frameworks for English and mathematics. Ofsted has drawn attention to a lack of continuity in their approaches at primary and secondary level.³⁵ Obviously it is important that the National Strategies exemplify curricular continuity so that transition is seen as a high priority supported by the materials and approaches that many teachers use. When the National Strategies team next reviews its materials it should look to further strengthen curricular continuity between Key Stage 2 and Key Stage 3.

Personal tutors and teaching assistants

4.60 At primary school, most children will have one main class teacher, who knows their strengths and weaknesses across the curriculum. This puts primary class teachers in a strong position to support the broad range of children's learning, taking into account individual differences. In these respects children and teachers are often ably supported by teaching assistants.

4.61 The Children's Plan proposed that, from 2010, all secondary age pupils will have a personal tutor or learning guide. The tutor will co-ordinate support for the child, with parental involvement, throughout their time at the school. They will:

- help with induction, offering an introductory session before the child starts secondary school;
- agree learning targets term by term; and
- encourage the child's ambitions (academic and otherwise).

4.62 It would be particularly helpful for personal tutors to meet the children they will be tutoring and their Year 6 teachers in the summer term before transfer as part of a planned induction programme. This could include supporting extended studies across the transition from the primary to the secondary school phase.

Extended study

4.63 The review has sought views on the value of an extended study which, for example, might be started by children in the summer term of Year 6 and completed at the end of that term or in the first term of Year 7. This study would be shared with their new secondary school as tangible evidence of children's capabilities alongside Key Stage 2 assessment data. Where close co-operation is possible between primary and receiving secondary schools, the extended study would be jointly planned and designed, and opportunities for shared teaching between primary and secondary staff considered.

4.64 This proposal has been generally well received by schools, so the piloting of extended studies by the QCA will be recommended.

Transfer strategies

4.65 The review found many examples of schools and local authorities employing a wide range of transfer strategies, including induction days where children attend the secondary school for a few days in the summer term of Year 6, and 'buddying' schemes where older children befriend and support new entrants to Year 7 during their first years at secondary school. However, these approaches sometimes petered out too soon or were implemented in isolation.

4.66 There is little evidence on the comparative effectiveness of different transition strategies. It is clear that no single initiative is enough in isolation. What is needed is a more comprehensive and sustained approach to the issue of primary to secondary transfer.

Five transition bridges

4.67 In 2005, the Department for Education and Skills (DCSF's predecessor) published a report from the London Challenge programme on a project in four London boroughs to develop innovative solutions to ensure effective pupil transfer from primary to secondary schools.³⁶ The report has a number of findings which, taken with those from elsewhere, provide valuable pointers to improving primary to secondary transfer arrangements. For example, the project highlighted five **transition bridges** which, taken together, characterised good practice:

1. **administrative** – e.g. robust administrative arrangements to support transition, including pupil records transfer, performance data management, administrative meetings between key school staff and common procedures;

2. **social and personal** – e.g. improving primary pupils' and their parents' familiarity with the school, layout and atmosphere and ensuring that effective pastoral support is in place;
 3. **curriculum** – e.g. improving curricular continuity between Year 6 and Year 7 to ensure that secondary school teachers build on the curriculum covered to date and teach to children's strengths;
 4. **pedagogy** – e.g. improving continuity in teaching and classroom practice between Year 6 and Year 7, countering stereotypes held by teachers in each phase and encouraging cross-phase professional support and dialogue; and
 5. **autonomy and managing learning** – e.g. ensuring that pupils are seen as active participants in the transition process and in their own learning.
- 4.68** With their local authorities, primary and secondary schools should agree a common policy for bridging children's transition from Key Stage 2 to Key Stage 3 based on the five interdependent transition bridges outlined above. This policy should promote extended studies across Year 6 and Year 7, and should make sure that personal tutors have opportunities to contribute effectively to transfer arrangements.

5. Introducing languages at Key Stage 2

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'In March 2007, my predecessor accepted Lord Dearing's recommendation that we should make languages a compulsory subject at Key Stage 2 the next time we review the primary curriculum. I would therefore like your review to provide me with advice on how best to introduce this. It is important that the introduction to a broad range of subjects, including languages, should be manageable for schools and provide a coherent and progressive learning experience for pupils.'

Extract from the review's remit

5.1 As a nation we are increasingly linguistically diverse. In 2007 the proportion of pupils whose first language was known or believed to be other than English was 13.5%. Nonetheless, the fact that English is a widely spoken world language continues to affect levels of motivation to learn another tongue. This makes it all the more important that we give every child the chance to learn another language, in order to gain insight into their own life and that of others around the world.

5.2 The Government has accepted the recommendation in Lord Dearing's *Languages Review*,³⁷ published on 12 March 2007, 'that languages become part of the statutory curriculum for Key Stage 2 in primary schools, when it is next reviewed'. At the time of that recommendation, some 70% of

primary schools were already teaching languages or had plans to do so. By autumn 2007, the proportion of schools teaching languages at Key Stage 2 had increased to 84%, according to the 2007 survey of language learning provision at Key Stage 2. We expect this proportion to rise further when the 2008 figures are made available.

5.3 It was encouraging to find that, of all the schools visited in the course of the present review, only one was not offering a language within the school curriculum (and that school had plans to do so). Languages were often available to pupils through after-school clubs, and good examples of early language learning in reception classes and during Key Stage 1 were also found.

5.4 The addition of languages as a compulsory element of the Key Stage 2 curriculum could be seen as a burden. However, the fact is that a large proportion of primary schools are already offering a language well ahead of it becoming compulsory to do so. This is because the teaching and learning of languages in primary school is enjoyed by children and seen as beneficial by primary headteachers and teachers for developing children's cultural understanding, language and literacy skills, and strategies and dispositions for learning more generally.

Supporting spoken communication and literacy

5.5 Because language is a tool for communication – comprising speaking, listening, reading and writing – learning a new language strengthens a child's command of their mother tongue. Given appropriate opportunities, they will make explicit links between the two.

5.6 The skills of reading and writing are supported by, and in turn reinforce, the

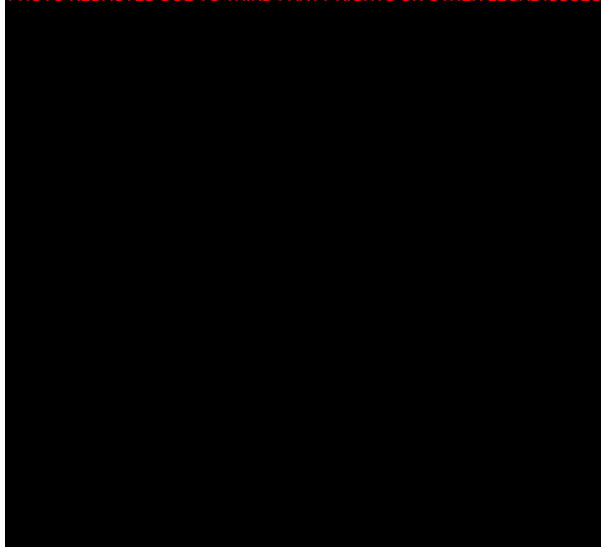
development of spoken communication. These skills are likely to take on greater prominence as children relate sounds to letters in the new language and apply this knowledge in their reading and spelling.

5.7 The interim report recommended that the knowledge, skills and understanding we want children to acquire in languages should be situated within the understanding English, communications and languages programme of learning in order to best exploit the links between English and the chosen language(s). The vast majority of those responding to the interim report supported this recommendation.

5.8 Within the programme of learning emphasis is given to learning and using languages to engage with different cultures and societies as well as to further develop children's understanding of how languages work.

5.9 By the end of Key Stage 2, children should be taught to:

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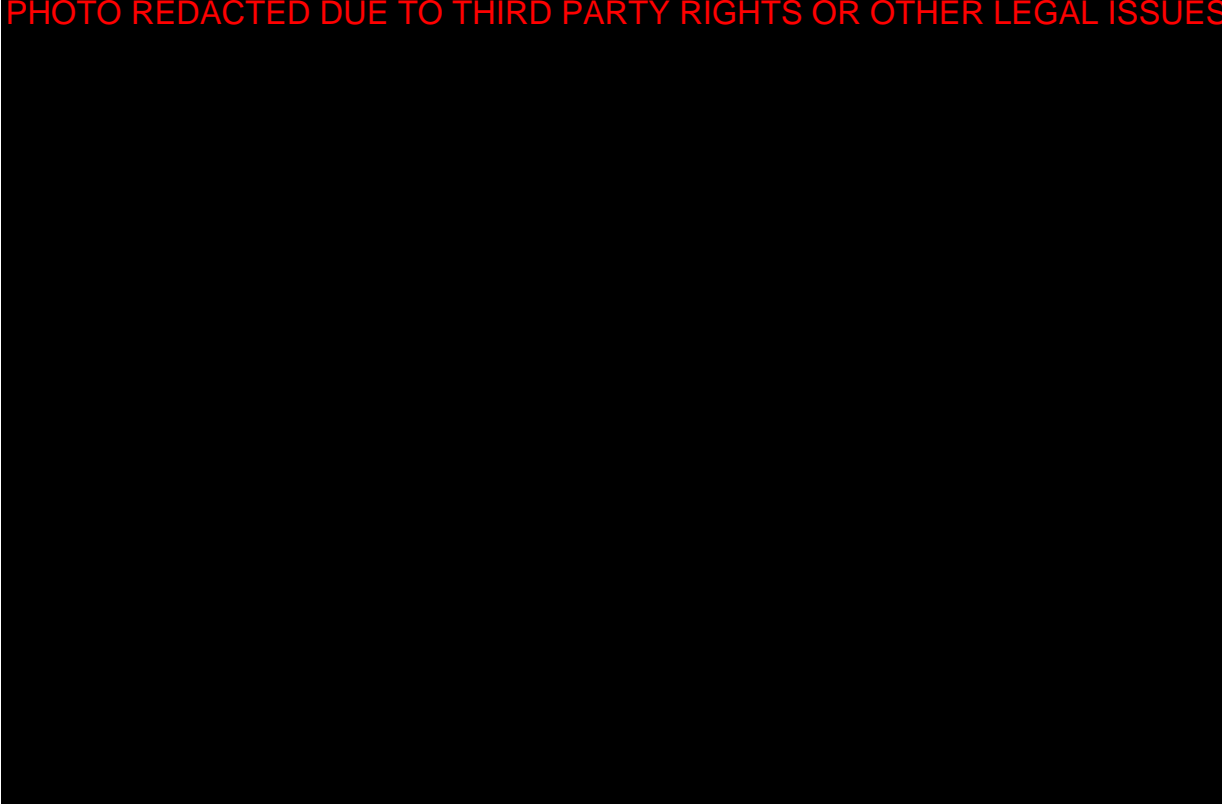


How are languages being introduced in Key Stage 2?

- understand the main points of what people say;
- engage in conversation, expressing their own opinion and responding to the opinions of others;
- present ideas and information to a range of audiences, selecting appropriate ways of expressing themselves;
- understand the main points and some of the details of texts they read;
- read aloud with expression and accuracy;
- recognise and apply the links between the sounds and spelling of a language;
- empathise with other cultures and imagine how others may see their own way of life; and
- compare attitudes to different languages and reflect on the importance of respect for others.

5.10 The interim report recommended that schools should focus on teaching only one or two languages in order for children to meet these expectations. Some respondents have argued that rather than restrict them to learning one or two languages, primary school-children should be given a broad experience of as many as six or seven languages, including Latin, to establish a broad interest for learning languages as they enter secondary school.

5.11 The Association of School and College Leaders (ASCL) is part of a language learning project funded by the Esmée Fairbairn Foundation, which advocates a multilingual language awareness model. In this model, over the four-year Key Stage 2 phase, pupils experience a range of languages, drawn from different language families such as Romance (French/Spanish), Germanic (German), Eastern European (Russian/Polish), Eastern (Japanese/Chinese) and Indian (Punjabi/Urdu). In the model, it is strongly recommended that one of the languages is Latin and some schools have been finding it helpful to teach Esperanto.



5.12 In its response to the consultation, CILT, the National Centre for Languages, wrote: 'Although CILT would not support a multilingual language awareness model, it recognises the importance of identifying opportunities to investigate and celebrate the languages of the school community.'

5.13 The review's recommendations do not preclude schools from providing pupils with opportunities to learn about several languages, for example as they study other countries and early civilisations. However, it is the advice of the review that more sustained attention should be given to one or two languages to ensure that children make progress over four years in keeping with the expectations of the programme of learning.

Transition

5.14 The review's recommendation to provide one or two languages would promote consistency between children's primary and secondary school learning, and would provide secondary teachers with a clearer picture of children's prior learning and attainment in order to plan for progression. It may reduce (though not eradicate) the risk of being unable to continue learning a particular language at secondary school and of secondary schools potentially discounting primary schoolchildren's prior learning.

Developing the workforce

5.15 Headteachers see resources for staff training and development, as well as for teaching materials and local authority support, as essential for primary language teaching to flourish. As with any subject, good provision of language teaching depends on the quality of teaching available. Strengthening the language skills of the primary workforce has been the

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Language of communication

Torriano Junior School, London

English is often the second language at Torriano, which has a high number of Bangladeshi and Somali pupils, including several refugee children. The school has risen to this challenge with an innovative method of teaching grammar that helps children learn not only English, but also other languages such as French and Italian.

The teaching of grammar is based on a toolkit called the 'List of Magic'. This is a visual display of the building blocks of language – everything from verbs to metaphors and similes. Children learn what they are, when they should be used and for what purpose. Children learn to talk confidently about their writing and choice of words and this feeds into their learning of other languages.

Language learning is also linked across the curriculum. So, for example, Italian is taught alongside the Romans in history and children visit the local Italian shop and learn to ask for items and pay for them in Italian. The languages programme has also enabled a close link with one of the receiving schools – a specialist languages teacher from this school now works with the Torriano teaching team.

'Our cross-curricular approach to learning English and languages enables children to make informed choices when composing and expressing their ideas. It offers strong support to children with English as an additional language.'

Bavaani Nanthabalan,
Head, Torriano Junior School,
London

single most important challenge for the National Languages Strategy.

5.16 Training all primary teachers to a high linguistic level in order to teach target languages would of course be prohibitively expensive, even if teachers were willing to make such a commitment. Nor would relying exclusively on external language experts (secondary or other teachers) provide the required capacity or play to the strengths of the primary system by embedding languages in the curriculum. For these reasons, the *Languages Review* proposed a mixed approach, in which the central role of the primary class teacher is supported by secondary schools and their specialist teachers, teaching assistants and foreign language assistants with high levels of language competence and appropriate resources, including ICT.

5.17 Despite the reservations noted above, enhancing the role of primary teachers is the route that schools and headteachers consistently prefer.

They tend to hold that latent language expertise among primary teachers is greater than sometimes believed. The National Languages Strategy's original estimate of 10% of primary teachers having some language competence was revised upwards after the first year of the longitudinal study to 17%, and evidence suggests that even this is an underestimate. There is therefore reason for optimism that, with reasonable support, primary teachers will rise to the challenge of language teaching with characteristic endeavour and goodwill.

5.18 As recommended in the interim report, the delivery of language teaching through workforce development programmes should continue at current levels of funding.

Evaluating the introduction of languages at Key Stage 2

5.19 Languages will become a statutory requirement of the National Curriculum at Key Stage 2 from 2011. In order to fulfil this entitlement, schools will be required to introduce languages progressively by year group from September 2011, starting with Year 3. It would be helpful if Ofsted surveyed schools' management of the introduction of languages as a compulsory subject, preferably no later than 2014.

6. International comparisons – primary education at home and abroad

Key statistics on maintained primary schools in England: DCSF, 2008

6.1 In January 2008 (the most recent date for which the figures are available), there were 4,087,890 primary-aged pupils (including part-time pupils) in England being taught in 17,205 primary schools. There were 198,090 teachers and 172,600 teaching assistants and support staff in all maintained nursery and primary schools³⁸ in 2008. Over three-quarters of a million pupils (826,550) were under the age of 5 in maintained primary schools.

6.2 These schools included infant (ages 4/5–7), first (4/5–8/9), infant and junior (4/5–11), junior (7–11), first and middle combined (4/5–12), and middle deemed primary (8–12). Junior/infant schools represented the largest single category, containing over three-quarters of the total.

6.3 The smallest school had one pupil, the largest nearly 1,000 (989 pupils). The average maintained primary school size for England as a whole was 237 pupils. Some 15% of maintained primary schools had up to 100 pupils; 60% had between 101 and 300 pupils; 14% had 301 to 400

pupils; 8% had 401 to 500 pupils; and 2.4% had more than 500.

6.4 Nearly 1 in 10 primary schools are situated in very deprived urban areas.

6.5 The percentage of pupils taught in large classes has reduced in recent years. This reflects the school standards framework which in 2001 placed a statutory duty on local authorities and schools to ensure that classes taught by one teacher should not exceed 30 pupils for those aged 5 to 7 (except in limited circumstances). The average class size was 26.2. Nearly 9 out of 10 classes (89%) had fewer than 30 pupils, 10% had 31–35 pupils and less than 1% had 36 or more pupils. The average pupil to teacher ratio was 21.6 in 2008 compared with 23.4 in 1997. The pupil to adult ratio for primary schools (which includes all teachers and support staff employed in schools) was 12.4 in 2007 compared with 17.4 in 1997.

6.6 Sixteen per cent of pupils in primary schools were eligible for free school meals. This has reduced since 1998 when the figure was 20%.

6.7 In 2008, 23% of pupils in primary schools were classified as being from a minority ethnic background (i.e. belonging to an ethnic group other than white British). The percentage of pupils whose first language was known or believed to be other than English was 14.4%.

6.8 Nationally, 1.4% of pupils on roll had a statement of special educational needs, while 18.1% of pupils on roll were classified as having special educational needs without a statement. These rates are similar to those observed in 1998.

6.9 At the end of their primary education, pupils are expected to have reached National Curriculum Level 4. In 2008, 81% of pupils reached Level 4 or above in English (85% for girls, 76% for boys), 78% in mathematics (78% for girls, 79% for boys) and 88% in science (89% for girls, 87% for boys). Compared with 1998, this represents a 16 percentage point increase in English, a 20 percentage point increase in mathematics and a 19 percentage point increase in science.

International comparisons

6.10 The rest of this chapter summarises and comments upon international evidence from a number of sources. It includes information on the organisation of the school year and school day in other countries. The principal source for this information

was the Qualifications and Curriculum Authority's International Review of Curriculum and Assessment Frameworks Internet Archive (INCA).³⁹

Aims of curricula

6.11 The 2003 INCA study of primary curriculum trends in 20 countries, including England, found that primary curricula generally aim to achieve a balance between basic skills, including literacy and numeracy, and developing the whole child.⁴⁰ In 2009, there are some notable points of comparison between England's new curriculum aims (successful learners, confident individuals, responsible citizens) and those of some other countries:

- In **Scotland**, the four 'capacities' of the new curriculum perform a similar function to the aims in England. Indeed, the first three capacities are identical to England's aims: successful learners, confident individuals and responsible citizens. However, there is a fourth capacity: effective contributors.⁴¹
- In **Northern Ireland**, the formulation of aims is different but there is still some similarity in content. The curriculum 'aims to empower young people to develop their potential and to make informed and responsible choices and decisions throughout their lives'. In addition to these aims there are also curriculum objectives. These are 'to develop the young person as: an individual, as a contributor to society, and as a contributor to the economy and the environment'.⁴²

- There are some points of comparison with **New Zealand**, where implementation of a new primary and secondary curriculum began in 2007. The curriculum is underpinned by a vision: 'Young people who will be confident, connected, actively involved, lifelong learners'. For example, 'lifelong learners' encompasses: being literate and numerate; being a critical and creative thinker; being an active seeker, user and creator of knowledge; and being an informed decision maker.⁴³
- There is also some similarity with **Sweden**, where the curriculum sets out the task of compulsory schools: 'In partnership with the home the school should promote the development of pupils into responsible persons and members of society'.⁴⁴

Content of curricula

6.12 The 2003 INCA study found that there was a high degree of commonality in the content of the primary curriculum across the 20 countries. This content related to:

- national languages;
- mathematics;
- science (sometimes including technology);
- art and music;
- physical education (often including health education); and
- some form of humanities.⁴⁵

6.13 Information collected in 2008 indicates that there continues to be a high degree of commonality in content across the 20 countries.⁴⁶ However, the status of the content within the primary curriculum varies. Recent reforms in many countries have given more

status to literacy and mathematics, the application of knowledge and understanding, and learning how to learn. Furthermore, personal, social and health education, citizenship and foreign languages are usually compulsory rather than optional.⁴⁷

6.14 In 2008, the Department for Children, Schools and Families commissioned the National Foundation for Educational Research (NFER) to compare the Key Stage 2 mathematics, literacy and science curricula in England with those of other high-performing education systems (Singapore, Chinese Taipei, Hong Kong, the Netherlands, Latvia, Ontario, British Columbia, Italy and Sweden).⁴⁸

6.15 In response to the findings of this comparison, Professor John Gray wrote in his foreword to NFER's report: 'There are considerable similarities, it seems, in the ways in which the comparator countries hand out guidance in the core areas of Maths, Science and Literacy and in terms of what they choose to emphasise. But there are also some

notable differences.'⁴⁹ Some of the major similarities and differences identified through NFER's comparisons are as follows:

- Six of the countries reviewed are not dissimilar to England in the high levels of specificity and detail offered to schools. By comparison, Netherlands and Sweden rely mainly on 'broad generalisations', especially in literacy.
- While the structure of the mathematics curriculum (number, geometry, data handling) is similar to most of the others, there are a number of different approaches in science (notably structuring by theme) and literacy curricula (such as structuring by purposes/uses).
- The requirement for an 'analytic approach' to the study of texts in England was judged to be more demanding than the 'full comprehension of texts' found in other literacy curricula.

- England's curriculum for number appears narrower and less demanding than in the majority of other mathematics curricula. However, data handling is broader and more demanding than elsewhere.
- In science, the curriculum in England for physical processes is narrower and less demanding. Although coverage of life processes is also narrower, it is not always less demanding. Scientific enquiry and materials tend to have a similar level of demand as most other curricula.
- The literacy curricula in other countries tend to include an elaboration of the underlying philosophy and rationale, whereas in England this is only brief.

Skills across the curriculum

6.16 A study of 11 countries in 2005 found that there was a general consensus that the school curriculum should equip young people with the essential learning skills of literacy, numeracy, and information and communication technology, and promote an enquiring mind and capacity to think rationally.

6.17 Learning skills, commonly comprising literacy, numeracy, information literacy and language skills, were found in all the curricula. Personal skills, such as communication, moral and social skills, were also present in all the curricula.

6.18 Nearly all of the countries included thinking skills in their curricula and this was often related to reasoning,

thinking creatively, reflecting, analysing, critiquing and synthesising. In all of the countries, skills were fully embedded in the curriculum, usually through cross-curricular objectives but in some cases through subject-specific objectives.

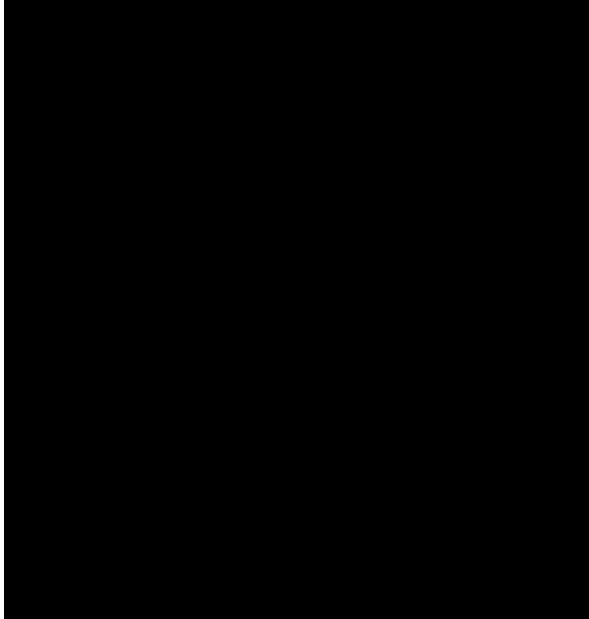
6.19 There was also some evidence of a shift in emphasis towards learning that encompasses knowledge and skills rather than knowledge alone.⁵⁰

Learning outcomes

6.20 The INCA study of 2003 found that many countries' curricula are now formulated in terms of learning outcomes.⁵¹ A 2008 European study defined learning outcomes as 'what a learner knows, understands and is able to do on completion of a process of learning'. This contrasts with the definition of curricula according to learning inputs such as timetabled time or narrow learning objectives. Although by no means universal or uniform, the European study found evidence of a shift towards the use of learning outcomes in some European countries' school curricula.⁵²

Competences for lifelong learning

6.21 When the Organisation for Economic Co-operation and Development (OECD) established PISA (the Programme for International Student Assessment) in 1997, the programme began the task of comparing 15-year-old students' competence in reading, mathematics, science and problem solving. At the same time, it



was recognised that learners' success in life depended on a much wider range of competences. The purpose of the OECD's DeSeCo (Defining and Selecting Competences) project was to develop a framework for identifying wider key competence domains, and to provide a method by which the OECD and countries can develop well-informed schemes of competences and, eventually, find ways of assessing some or all of these wider competences. Three interlinked sets of competences were developed, each with a rationale and three abilities under each competence heading.

Using tools interactively

- The ability to use language, symbols and text interactively.
- The ability to use knowledge and information interactively.
- The ability to use technology interactively.

Interacting in heterogeneous groups

- The ability to relate well to others.
- The ability to co-operate.
- The ability to manage and resolve conflicts.

Acting autonomously

- The ability to act within the big picture.
- The ability to form and conduct life plans and personal projects.
- The ability to assert rights, interests, limits and needs.⁵³

6.22 Following on from OECD's DeSeCo project, the European Commission developed eight key competences for lifelong learning. This was the subject of a European Parliament and Council recommendation in 2006. The recommendation states that competences are a combination of knowledge, skills and attitudes. It sees them as being particularly necessary for personal fulfilment and development, social inclusion, active citizenship and employment. The eight key competences are:

- communication in the mother tongue;
- communication in foreign languages;
- mathematical competence and basic competences in science and technology;

- digital competence;
- learning to learn;
- social and civic competences;
- sense of initiative and entrepreneurship; and
- cultural awareness and expression.

6.23 The recommendation indicates that the key competences are all interdependent, and the emphasis in each case is on critical thinking, creativity, initiative, problem solving, risk assessment, decision taking and constructive management of feelings. They are intended to provide a reference tool for European Union (EU) member states and their education and training policies.⁵⁴

Organisation by subject or by area

6.24 Some countries' curricula can be characterised as organised by subject

and others as organised by area. Subjects tend to refer to curriculum content that is organised in relatively narrow domains, such as history and geography. Areas tend to refer to broader domains of experience, such as Spain's knowledge of the natural, social and cultural environment or France's autonomy and initiative.

6.25 However, the differences between subject-based and area-based curricula are not hard and fast. Spain's 'areas' also include mathematics. Similarly, New Zealand's 'areas' include both broader domains such as social sciences and narrower domains such as English.⁵⁵ Some countries therefore use a combination of subjects and areas.

6.26 The INCA probe on primary curriculum change in 2008 included 10 countries. It found that only two organised their curriculum by area alone. The sample of countries was not intended to be representative of all countries, but their rationales for using areas are noteworthy. Where stated, these rationales related to:

- the cognitive development of learners;
- easing the transition from pre-primary modes of learning;
- curriculum integration to optimise learning;
- a new importance attached to cross-curricular skills/competences; and
- a need to simplify the curriculum and its assessment, or a need to make the curriculum more manageable.⁵⁶

Country snapshots

6.27 The remainder of this chapter gives details of selected countries that have taken an area-based approach, or similar, to the organisation of the curriculum. For completeness, and where available, details of any cross-curricular skills or competences incorporated into the curriculum are included. This information is drawn from the INCA country archives and network, except where stated otherwise. The information is then cross-referenced

with results for these countries from the most relevant international assessments – the Progress in International Reading and Literacy Study (PIRLS) and Trends in International Mathematics and Science Study (TIMSS).

6.28 In summary, England generally has more highest attaining pupils than these countries but a wider dispersion of pupil attainment.

Australia: Tasmania

6.29 Australia's states and territories have agreed to adopt key learning areas and cross-curricular areas as the basis of their curriculum development. From this basis, Tasmania developed seven areas:

- English/literacy;
- mathematics/numeracy;
- science and technology;
- information and communication technology (ICT);
- society and history;

- arts; and
- personal development.

6.30 ‘Science and technology’ and ‘personal development’ are particularly worthy of note. Similarly, New South Wales has a ‘health and wellbeing’ area and Victoria has ‘personal and social development’.

6.31 In TIMSS 2007, Australia had lower but broadly similar distributions of performance scores compared with England for mathematics and science.^{57, 58}

Denmark

6.32 There are three compulsory subject blocks in the primary school curriculum in Denmark:

- the humanities (Danish, English, Christian studies, history and social studies);
- practical/art subjects (physical education, music, art and something akin to design and technology);
- science (mathematics, science/technology, geography, biology, physics and chemistry).

6.33 Thus, although the curriculum appears at first glance to be organised according to only a few ‘blocks’, each of these blocks is made up of several subjects.⁵⁹

6.34 In PIRLS 2006⁶⁰ Denmark ranked lower than England but had a tighter distribution of scores than England’s more polarised profile. In TIMSS 2007 for Year 5 (10-year-olds), the comparison is similar except that Denmark has a similar proportion of lowest achievers.

Finland

6.35 The core curriculum in Finland⁶¹ sets out the subjects to be studied (more than 15 are identified but schools can combine these as they choose) and the required hours of instruction. Each subject is expressed by year/grade using three categories: objectives, core content and assessment criteria. Core content is described as activities and skills, rather than detailed subject-based content. This places the onus on the municipality, and more importantly on the school, to develop their curriculum to meet learners’ needs as well as national expectations.

6.36 In addition, Finland’s core curriculum specifies cross-curricular themes. For basic education, seven cross-curricular themes are identified:

- growth as a person;
- cultural identity and internationalism;
- media skills and communication;
- participatory citizenship and entrepreneurship;
- responsibility for the environment, wellbeing and a sustainable future;
- safety and traffic; and
- technology and the individual.

The cross-curricular themes are identified in terms of objectives and core content, but there is no specific requirement concerning assessment.

6.37 Finland did not participate in the recent TIMSS or PIRLS surveys but has consistently performed well in PISA.

France

6.38 In 2006, France introduced *Le socle commun de connaissances et de compétences* – the common core of knowledge and skills to be acquired by all pupils. The *socle commun* is regarded as essential to an individual's educational success, future learning, and personal and professional future in society and is defined as seven broad areas:

- command of the French language;
- command of at least one modern foreign language;
- command of the main elements of mathematics and of science and technology;
- cultural education/awareness to enable participation in society/the exercise of citizenship;
- working knowledge of information and communication;
- civic and social competences; and
- autonomy and initiative.

6.39 The *socle commun* is acquired gradually, from nursery education through to the end of compulsory education. To a greater or lesser extent, several of the areas in the *socle commun* were covered by the pre-2006 curriculum and there are similarities with the EU reference framework of key competences. Another point of departure for the *socle commun* was France's lower than expected performance in international assessments, particularly PISA. In

PIRLS 2006, France ranked markedly lower than England. However, England still had a higher proportion of lowest attainers than France.

Korea

6.40 Korea's primary curriculum is organised through a combination of subjects and areas. Language and mathematics are taught as separate subjects. The remainder of the curriculum is divided into three areas. It should be noted that these areas are made up of subjects that are taught individually:

- disciplined life (social studies and moral education);
- intelligent life (sciences later taught separately); and
- pleasant life (physical education, music and fine arts).

6.41 English is added in the second stage of the primary curriculum, along with a further area called 'practical arts' (technology and home economics). Pupils also choose from a range of optional subjects towards the end of primary education. These are numerous and sometimes taught through other subjects and sometimes discretely.

6.42 The INCA website reports that Korea's primary curriculum is considered too complex and unwieldy. In practice, it appears that there are too many areas, too many subjects and, therein, too many topics. This has resulted in learning that is broad but lacks depth. Although Korea did not participate in the recent TIMSS or PIRLS surveys, it has consistently performed well in PISA.

score and smaller spread of attainment. In TIMSS 2007, the Netherlands, for both mathematics and science, had fewer lowest or highest achievers than England.

New Zealand

6.46 New Zealand introduced a new curriculum for primary and secondary education in 2007. There are achievement objectives for eight learning areas:

- English;
- the arts;
- health and physical education;
- learning languages;
- mathematics and statistics;
- science;
- social sciences; and
- technology.

6.47 There are also key competencies in: thinking; using language, symbols and texts; managing self; relating to others; and participating and contributing.^{63, 64} International assessments were an important impetus for reform of the curriculum and the personalisation of learning has been assigned an important role in tackling disparities in attainment.

6.48 New Zealand scored slightly lower but with a similar distribution to England; the pattern is starker in TIMSS 2007.

The Netherlands

6.43 In the Netherlands there have been six primary curriculum areas since 2006:

- Dutch;
- English (at the top of primary school);
- arithmetic and mathematics;
- social and environmental studies (geography, history, science, citizenship, social and life skills, healthy living, social structures, religious and ideological movements);
- creative expression (music, drawing and handicrafts); and
- sports and movement.

6.44 There are core objectives for each area and general objectives that provide links across the areas.⁶²

6.45 England had over double the proportion of high attainers in PIRLS 2006 compared with the Netherlands which in contrast had a much lower

Northern Ireland

6.49 Northern Ireland introduced a new primary and post-primary curriculum organised according to learning areas in September 2007. There are six learning areas (and each area is made up of different strands):

- the arts (art and design, music, drama);
- languages and literacy (talking, listening, reading, writing, drama);
- mathematics and numeracy;
- personal development (emotional development, learning to learn, health, relationships and sexual education) and mutual understanding (in the local and global community);
- physical development and movement; and
- the world around us (geography, history, science and technology).

6.50 The strands within each area share curriculum objectives and teachers are expected to integrate learning across the areas. In addition to the learning areas, religious education remains a compulsory subject. There are cross-curricular skills in communication, using mathematics and using ICT. There are also thinking skills and personal capabilities, which comprise a similar range of skills to the personal, learning and thinking skills in England's new secondary curriculum.

Norway

6.51 In 2006, Norway moved away from organising the first stage of the primary curriculum (ages 6 to 9/10) by areas. It is now organised according to the subjects that are already used in the second stage of the primary curriculum (ages 10 to 12/13). Basic skills in literacy, oracy, numeracy and ICT have been integrated into all subjects. The gradual introduction of subjects as pupils progressed through primary school was designed to ease the transition from pre-school. The aim is now to improve curriculum continuity and teacher co-operation across the two stages of primary education.⁶⁵

6.52 Norway had nearly none of the highest achievers in PIRLS but a similar proportion of lowest achievers compared with England – most student scores are intermediate. This pattern is repeated in TIMSS 2007, with the exception that Norway had a relatively large proportion of the lowest achievers.

Sweden

6.53 Sweden has a goal-based school system with a high degree of local responsibility. The curriculum provides a long list of goals and these are divided into goals to strive towards and goals to attain. Goals to strive towards specify the orientation of the work and the qualitative development desired in the school. Goals to be attained express the minimum levels pupils should have attained when leaving school.⁶⁶ Swedish, English and mathematics occupy a prominent position in compulsory school. All pupils also study practical arts subjects, social sciences, natural sciences and another foreign language.⁶⁷

6.54 In PIRLS 2006, Sweden ranked lower than England but had a more centralised distribution of scores than England's more polarised profile. This pattern is similar in TIMSS 2007 with the exception that Sweden has a similar proportion of lowest achievers.

Transfer and transition

Pre-primary to primary

6.55 A recent review of literature on the influence of pupils' ages relative to their peers on their attainment and development identified 18 studies carried out between 2000 and 2008 in Australia, Chile, the UK and the USA. All of the studies found evidence of statistically significant effects for relative age (comparing the youngest with the oldest in the year group).

6.56 Relative age effects for attainment are quite large (effect sizes of up to 0.8) for young children, measured soon after they start school. There is a smaller relative age difference among older primary school children but the difference remains 'educationally significant' throughout primary school.

6.57 The review concluded that relative age effects are most likely to arise from the educational system, rather than from any inherent characteristics of children who are born at certain times of the year. It identified a number of policy responses. In relation to the curriculum, it recommended ensuring that the curriculum is appropriate for relatively younger children, especially in the early years of schooling when relative age differences are greatest. In relation to pedagogy, one recommendation was

simply to raise teachers' awareness of relative age effects and which children are the youngest in their classes.

Primary to secondary

6.58 In countries where there is a transfer from primary to secondary school, this usually involves the movement of pupils from a small school community and a single class teacher to a large school community with numerous teachers. Evidence from the literature suggests this may contribute to post-transfer dips in motivation or attainment. There is evidence that performance in mathematics, science and mother tongue are affected but there is a lack of evidence for other subjects which may also be affected.

6.59 The evidence from England and other countries suggests that, while transfer may be a major cause of dips, the point at which transfer occurs is less important than the management of the transfer. Policy responses have therefore included reducing discontinuities in teaching, and the content and organisation of the curriculum. The international evidence emphasises the importance of developing a curriculum that is relevant and meaningful to pupils, and monitoring pupils' progress to ensure that levels of challenge are appropriate to their individual rates of progression.⁶⁸

International surveys of pupils' attainment

Introduction

6.60 There are three major international surveys of pupils' attainment:

- TIMSS⁶⁹ – Trends in International Mathematics and Science Study (co-ordinated by the International Association for the Evaluation of Educational Achievement – IEA);
- PIRLS⁷⁰ – Progress in International Reading Literacy Study (also co-ordinated by the IEA); and
- PISA – Programme for International Student Assessment (run by the OECD).

6.61 TIMSS assesses students in Year 5 (10-year-olds) and Year 9 (14-year-olds) and PIRLS assesses 10-year-olds. PISA assesses 15-year-olds and is therefore not considered here. These surveys are typically repeated every three or four years; the most recent TIMSS survey was in 2007 and the most recent PIRLS and PISA surveys were in 2006.

In carrying out international surveys, there are potential comparability issues, which are not covered here. However, an NFER report (2008) concludes that the results of such surveys are generally robust.

What the surveys can tell us:

6.62 The surveys are useful in a number of ways:

- **They give a comparative 'snapshot' of pupil performance against the tested domains.** The surveys also provide a measure of relative performance (via individual scores) that can be used to compare country performance through score averages and distributions. In certain circumstances these can be used to compare performance over time. These surveys also measure performance against certain domains. These tend not to cover a whole subject but instead cover some subject domains and construct (skill) domains. These domains are chosen by the survey organisers and so are independent of any specific country curriculum.

- **They offer students' perspectives of the tested domains.** The surveys also give comparative information about students' self-reports (via a questionnaire) on their perspectives of the domains tested (such as understanding or enjoyment of them or confidence in them). There is also background, contextual information collected via a questionnaire answered by parents or teachers or students. This can be used to indicate socio-economic status.

What the surveys can't tell us:

6.63 The surveys are unable to offer the following:

- **They cannot give us a definitive ranking of country curricula by relative performance.** Many factors contribute to average country scores, of which the curriculum framework is one. High performance of a certain sample, from a single cohort, in a given country, is regarded as indicative of a high-performing country with a 'good' or 'excellent' curriculum. However, this relies on a degree of generalisation which may not be justified – the performance from one cohort in a restricted number of domains may not accurately reflect the effect of a curriculum that covers up to the year group tested.
- **They do not provide a definitive measure of impact on student performance by specific curriculum policies.** Surveys will reflect (if they measure the domains affected by the policy) the effects of specific policies. However, it may be difficult to take account of the time lag between the introduction of a specific policy and its effects becoming large enough to be detected by a survey. The curriculum is just one element of an education system of which a survey will indicate performance; a specific policy will be just one element of that curriculum. Therefore, while it may be possible to strongly infer policy impact via an international assessment survey, proving causality is very difficult.

Information on student performance

6.64 The surveys demonstrated the following trends:

- Pupils in England generally performed better in TIMSS 2007 than they did in the previous survey (2003) and were only outperformed by Asian Pacific Rim countries for Year 5 (10-year-olds) – Singapore, Hong Kong and Taiwan for science and mathematics and Japan for mathematics.
- In TIMSS, the distributions of scores for pupils in England were similar to the countries at a similar level but pupils had a lower proportion of high scores compared with the Asian Pacific Rim countries.
- In PIRLS 2006, pupils in 11 of the 40 countries surveyed performed significantly better than those in England.
- PIRLS 2006 showed that English-speaking countries generally had a greater range between the lowest and highest scores than other countries.
- PIRLS 2006 identified a gender gap in performance across the participating countries, which was particularly large in England. However, TIMSS 2007 found

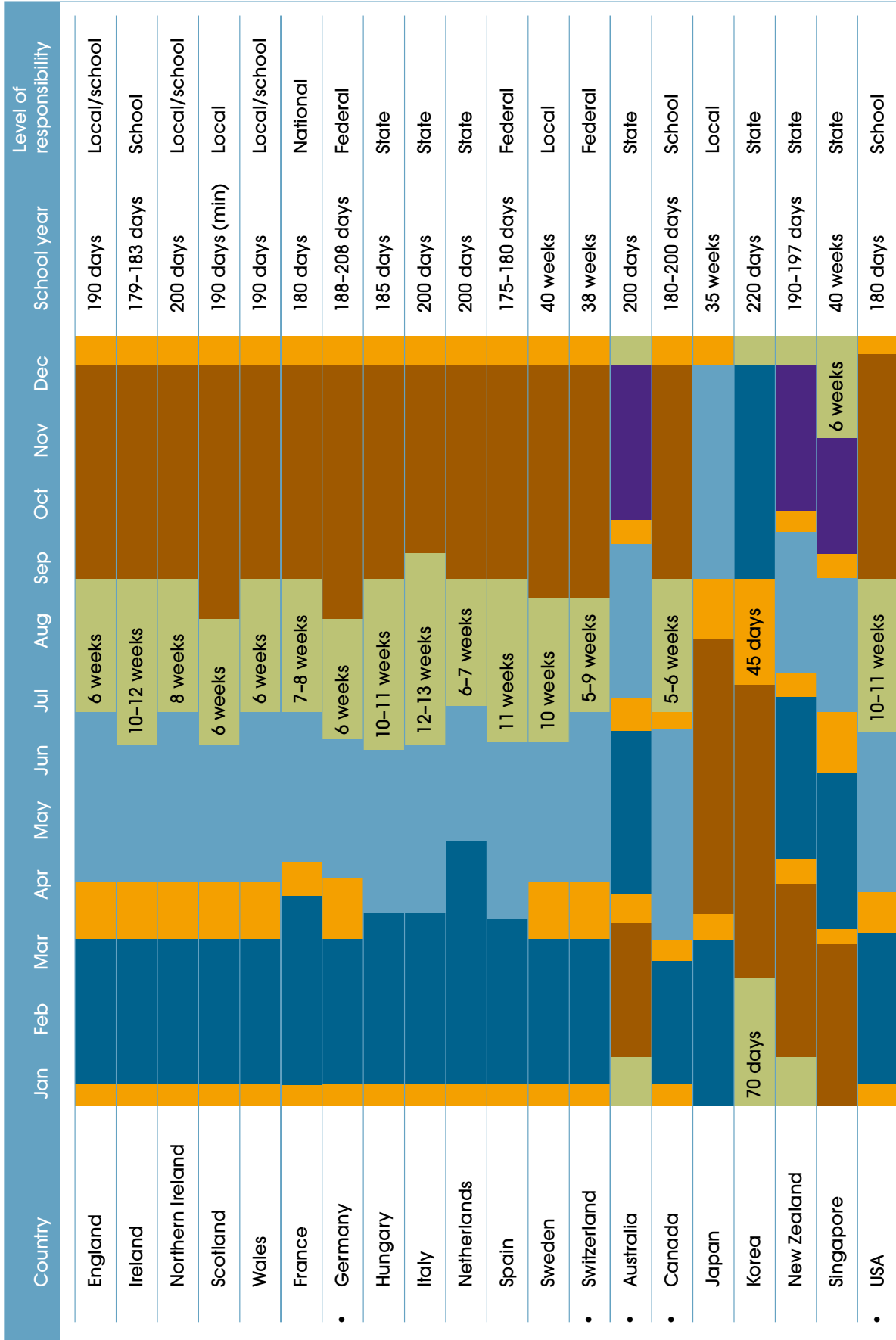
no overall difference in attainment by gender, although significantly more boys reported high levels of self-confidence compared with girls.

Information on student perspectives and contexts

6.65 The surveys provided the following information on student perspectives and contexts:

- In TIMSS 2007, the proportion of Year 5 pupils in England reporting highly positive attitudes to the subjects (mathematics and science) was similar to other high-performing countries, but had declined since the first TIMSS survey in 1995. Conversely, the reported level of self-confidence in learning by Year 5 pupils had increased in mathematics and had remained similar in science since 2003.
- TIMSS 2007 found that:
 - » over 40% of Year 5 pupils in England reported having at least 100 books at home, nearly double the international average;
 - » 95% had a computer at home and 86% had internet connections at home; and
 - » Year 5 pupils received less homework in science and mathematics and teachers placed less emphasis on homework than in other countries.
- PIRLS 2006 found that there is a very strong association between reading attainment and reading every day for fun. In England, a third of pupils reported reading every day for fun. In contrast, 28% reported never or almost never reading every day for fun; this lay along a gender split of 23% for boys and 41% for girls.
- Of the pupils in England surveyed in PIRLS 2006, 36% reported spending three or more hours per school day watching TV and 37% reported playing computer/video games.

Organisation of the school year



Key

- Term 1
- Term 2
- Term 3
- Term 4
- Main holiday
- Other holiday

Organisation of the school year and school day

The school year

6.66 The table on page 125 shows the organisation of the school year at a glance, including when it starts, the number of terms and the length of the main holiday.⁷¹ It is not an exact representation – for example the break in March/April in England and the other home countries is not generally a month long but may take place at any time between mid-March and April depending on the timing of Easter. This may also be the case in other countries. There may be mid-term breaks of up to a week that are not shown.

6.67 The table presents the length of the school year in days or weeks as expressed in the policy documents of the country concerned. Responsibility refers to the body responsible for organising the school year within the statutory number of days/weeks for the school year.

The school week and day

6.68 The table opposite looks in more detail at how the teaching week is organised. Teaching time is per week unless otherwise stated; some systems specify teaching time per year.

6.69 Responsibility refers to the body responsible for organising the school day within the statutory teaching time per week.

Country	Teaching time per week	School day	School week M T W Th F Sa S	Teaching periods	Level of responsibility
England	Min 21 hours, age 5-7 Min 23.5 hours, age 7-11 Min 24 hours, age 11-14 Min 25 hours, age 14-16	9am-3:30pm	• • • • •	Varies	School
Ireland	Min 915 hours/year, age 6-12 Average 40-period week, age 12-15	9am-3/3:30pm	• • • • •	30 minutes 35-45 minutes	School
Northern Ireland	Min 3 hours/day, to age 8 Min 4.5 hours/day, age 8+	9am-3:30pm	• • • • •	Varies	School
Scotland	Average 25 hours, primary Average 27.5 hours, secondary	9am-3:30pm	• • • • •	Varies	School
Wales	Min 21 hours, age 5-7 Min 23.5 hours, age 7-11 Min 25 hours, age 11-16	9am-3:30pm	• • • • •	Varies	School
France	26 hours/week, age 6-11 26-30 hours, age 11-15 30-40 hours, age 15-18		• • • • •	55 minutes/1 hour	Local
Germany	19-29 periods/week primary 28-30 periods/week, age 10-12 30-32 periods/week, age 12-16	7:30am-1:30pm	• • • • •	45 minutes	School
Hungary	Max 20 hours, age 6-9 Max 22.5 hours, age 9-12 Max 25 hours, age 12-14 Max 27.5 hours, age 14-16 Max 30 hours, age 16+		• • • • •	45 minutes	State
Italy	Min 27 hours, primary education Min 29 hours, lower secondary Min 29 hours, upper secondary	Varies	• • • • •	1 hour	School
Netherlands	Min 3520 hours/year, age 4-8 Min 3760 hours/year, age 8-12	9am-3:30pm	• • • • •	50-60 minutes	School
Spain	Average 25 hours, primary Average 30 hours, secondary	9am-4:30/5pm	• • • • •	55 minutes 60 minutes	School
Sweden	Max 6 hours/day, to age 9 Max 8 hours/day, age 9+	Varies	• • • • •	Varies	School
Switzerland	Varies	Varies	• • • • •	Varies	School
Australia	Average 25 hours, primary Average 27.5 hours, secondary	9am-3pm	• • • • •	Varies	School
Canada	950 hours/year (Alberta)	9am-3:30pm	• • • • •		School
Japan	Min 17-20 hours		• • • • •		Local
Korea	830-1156 hours/year	8am-4:00pm	• • • • •	40-45 minutes	State
New Zealand	Average 25 hours	9am-3/3:30pm	• • • • •		School
Singapore		7:30am-1pm 1pm-6:30pm	• • • • •	30-40 minutes	State
USA	Varies	Varies	• • • • •	Varies	School

7. Views of parents

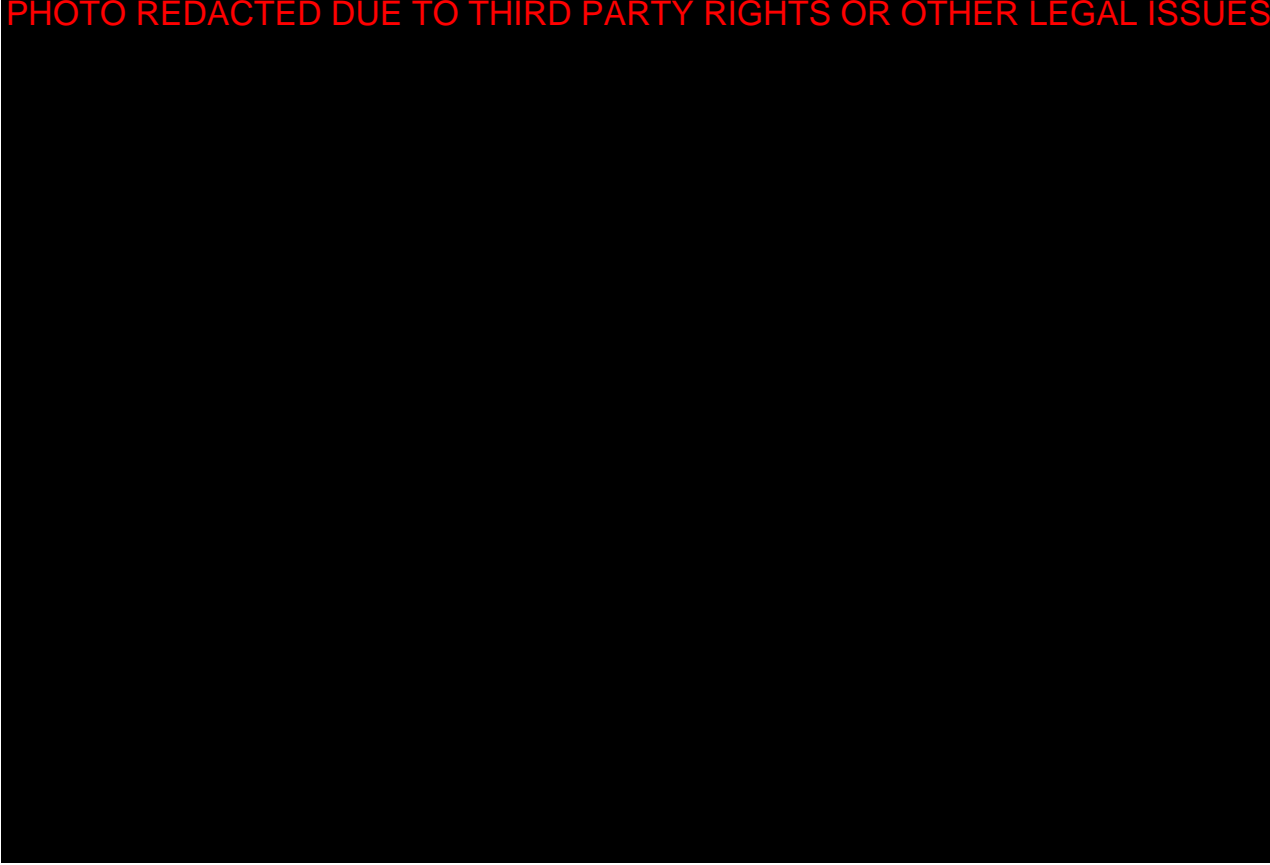
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Before and following the interim report, visits to schools provided opportunities to meet parents and school governors, and talk with them about their views on aspects of the review's remit. In nearly all of the schools visited, parents provided volunteer help, for example as classroom helpers, and help with school visits.

7.1 Two surveys of parents' views of the curriculum were carried out on the review's behalf in March 2009.^{72, 73} One surveyed 952 parents (476 with children aged between 4 and 10 years) and the other was comprised of a set of focus groups designed to find out parents' understanding of the curriculum and their views on the proposed changes and how communications with them could be improved. Additionally, the Qualifications and Curriculum Authority submitted evidence of its direct engagement with parents through online surveys and a focus group with a small group of parents with children with special educational needs.

7.2 Some clear trends emerge from these different sources of information. While the majority of parents claimed relatively little knowledge of the primary school curriculum, they often had clear views about what they wanted their children to learn and how schools should organise the learning. About a third of parents surveyed were aware of this review of the primary curriculum and the majority agreed that the curriculum should be changed in order to stay relevant to the world their children were growing up in.

7.3 Parents responding to the survey gave strong support to the proposed three aims for the curriculum and were also very clear (over 90% agreement) that young children should have fun and learn through play at primary school. This was also confirmed in the focus group discussions.



7.4 Across all surveys parents were clear that ‘the basics’ were very important for children. The table shows the percentage of parents with children aged between 4 and 10 placing these subjects in the top five to be gained by the end of primary education.⁷⁴

Subject or skill	Percentage of parents responding
Reading and writing	97
Mathematics	93
Learn how to respect each other	71
Learn to be healthy and safe	64
Information technology	54
Science	53

7.5 This balance between acquiring the basics and supporting the personal development of their children was a consistent feature of parents’ views across the surveys. It also chimes with the findings of the parental research carried out for *The Children’s Plan* where a concern for the development of the whole child was seen as important for schools and subsequently reflected in the remit of this review.

7.6 Interestingly, while parents taking part in the survey saw personal development as an important feature of the primary curriculum, they also felt that they were best placed to teach their children about much of it. However, they felt that teachers knew best in terms of the teaching of school subjects such as mathematics and science. Schools take different approaches to involving parents and it is important for them to

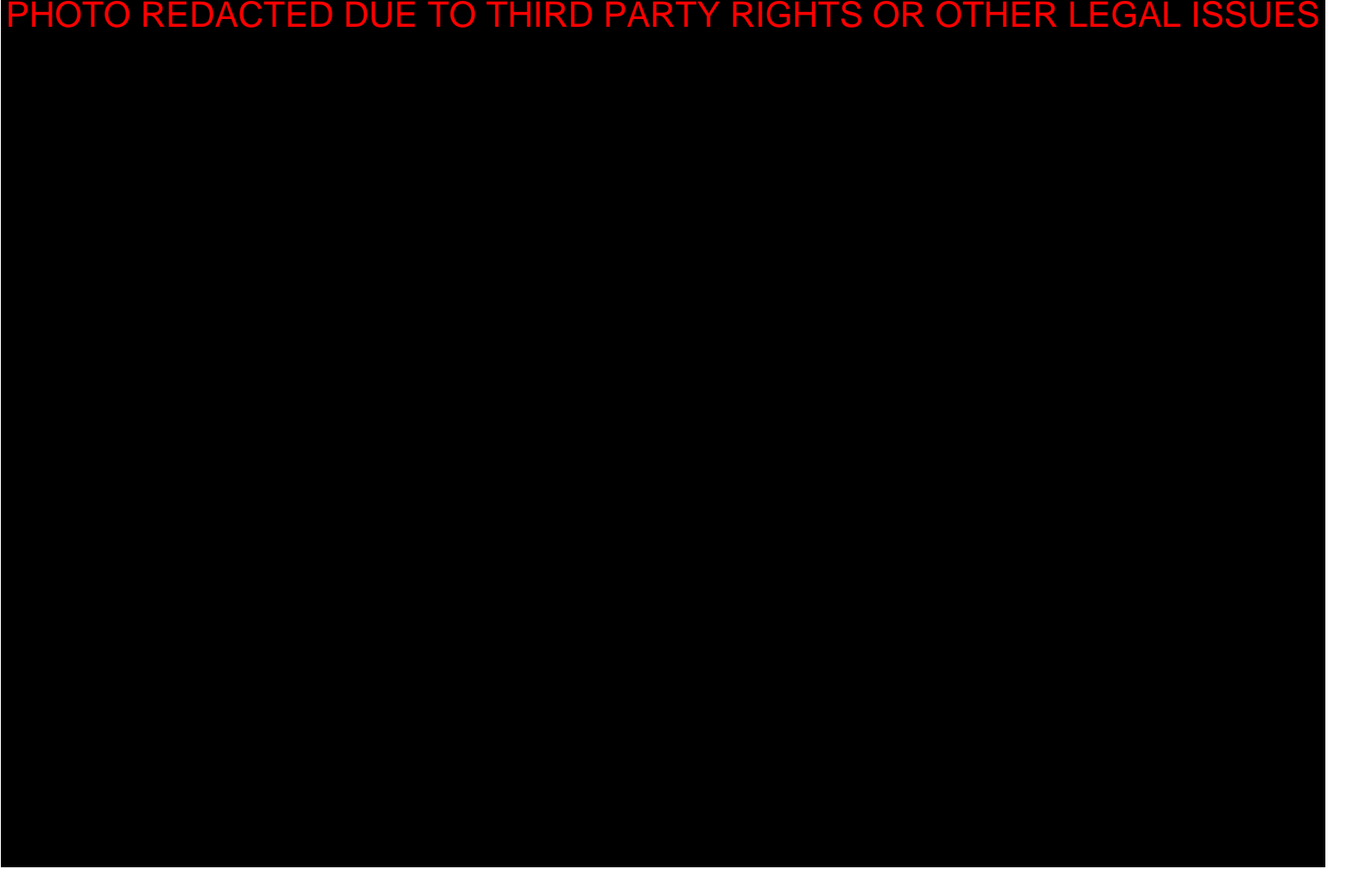
recognise the increased expectations that many parents have of involvement in their children's learning.

7.7 Parents recognised the need for schools and teachers to have the flexibility to make the curriculum relevant to their children. This was particularly strongly expressed by parents of children with special educational needs who had very mixed experiences of the ways in which schools met the needs of their children. These parents also expressed a desire for greater support for their children as they moved from primary to secondary school where some parents felt their children were 'unprepared for the challenges' they faced.

7.8 A final area explored in the focus groups was the understanding parents had of the language of the curriculum. Words and terms that are part of the everyday language of the education system are not always understood by parents. Sometimes terms and phrases carry more negative connotations than might be expected. For example, while

the focus group parents generally were very supportive of the aims of the curriculum, some expressed concern about the phrase 'successful learners' as they felt it was 'not inclusive of those children who struggle'.

7.9 Other terms that are commonly used in schools are unfamiliar to parents and assumed to be 'jargon'. It is important both for this review and for schools as they implement the new curriculum that language is used which is accessible and easily understood by parents. A parents' guide to the curriculum commissioned by the Department for Children, Schools and Families would be very helpful in building stronger bridges between home and school and would enable parents to understand better the ways in which they can support their children's learning and progress.



7.10 Perhaps the final words on the views of parents should be those of a parent:

'Primary school should give children a thorough grounding in the basics (reading, writing, maths) and good exposure to a wide range of science, arts, culture, environment, history, languages... they should have lots of outdoor time and exercise... they should have fun and like being there... and they should learn how to be tolerant, share, take turns, help each other, be confident and know how and when to ask for help.'

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Virtual parent power

Lent Rise Combined School, Burnham

Parents of children at Lent Rise can see how their child is doing at the click of a mouse – on the school's virtual learning world. This site has a parent zone with individual passwords for each child, where they can access resources to support home learning and also see real time reporting on their child's progress. It also offers parents a forum to communicate with the school and other parents, and has proved enormously popular.

The school provides structured information for parents at every stage of the school journey. When children first come to the school, they are sent home with a starter pack, a bag of information and goodies that even includes a toy bear wearing a Lent Rise T-shirt. At the start of every school year, parents are sent a similar parents' pack, which provides comprehensive information and guidance for the year ahead including personalised learning goals for their child, a copy of the timetable and lists of vocabulary in both English and French.

'Offering parents a space in our virtual learning site has revolutionised their sense of involvement with the school. Parents feel included and empowered being able to follow their child's progress online and access resources to support learning.'

Brenda Bigland, Head,
Lent Rise Combined School,
Burnham

8. Next steps

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Ministers will decide which of the recommendations in this report they wish to take forward. The proposals they accept will be subject to a 12-week public consultation period which will allow further opportunities for interested parties to comment on and help to improve what is put forward.

8.1 Between now and the introduction of a new primary curriculum in September 2011, schools will need a significant amount of guidance and support to aid planning. On top of the additional teacher training day recommended for the summer term of 2010, the Department for Children, Schools and Families (DCSF) and the Qualifications and Curriculum Authority (QCA) should put together a comprehensive support package, beginning no later than January 2010. As part of the consultation, the DCSF and the QCA should seek the views of the profession on the type of guidance and support they would find most helpful.

8.2 In preparing for a revised curriculum in 2011, the QCA should provide examples of how successful schools manage time to achieve a broad and balanced curriculum.

8.3 The DCSF, working with the QCA and Becta, should consider what

additional support teachers will need to meet the raised expectations of children's ICT capabilities set out in Chapter 3 of this report.

8.4 The QCA should exemplify and promote the range of learning envisioned in the framework for personal development to help schools plan for balanced coverage of this important area of children's learning.

8.5 The DCSF has already agreed to fund an expansion of the interactive website developed by the QCA to support the introduction of the revised secondary curriculum, to provide an online facility for primary schools and other stakeholders to aid implementation of the new primary curriculum. The website should include guidance and tools for curriculum development and design, along with case studies showing the curriculum in action.

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Annex A: Remit letter
to Sir Jim Rose,
January 2008

Dear Sir Jim,

I was delighted that you have agreed to lead an independent review of the primary curriculum. As *The Children's Plan* makes clear, this will be the most fundamental review of the primary curriculum for a decade. A strong, coherent curriculum which has flexibility to personalise teaching and learning is crucial to driving up standards further. It is central to achieving the ambitions we have set out in *The Children's Plan* and to delivering the outcomes of the Every Child Matters agenda.

Nothing is more important than the body of essential knowledge, skills and understanding we choose as a nation to pass on to our young people. The primary curriculum must ensure that all pupils can build on their prior learning in the Early Years Foundation Stage (EYFS) to develop the essential reading, writing, numeracy and personal skills they need in order to learn and develop. It must provide all pupils with a broad and balanced entitlement to learning which encourages creativity and inspires in them a commitment to learning that will last a lifetime. The primary curriculum should also facilitate a smooth transition for young people from primary to secondary school.

While most primary schools are providing their pupils with an inspiring and engaging curriculum, some tell us that the number of subjects and the

amount of prescription in some of the current programmes of study restrict their flexibility. This can particularly affect those pupils who are struggling to keep up or those who require more challenging tasks.

Building on the steady rise in primary school results in recent years, I would like your review of the primary curriculum to enable schools to have even greater flexibility to meet pupils' individual needs and strengths, including those with special educational needs, in order to further help them narrow the attainment gap between disadvantaged pupils and their peers. The content of existing programmes of study should be reviewed, reducing prescription where possible. A key objective of your review is to enable schools to strengthen their focus on raising standards in reading, writing and numeracy.

I also want pupils to be introduced to a broad range of subjects in primary school, including languages. In March 2007 my predecessor accepted Lord Dearing's recommendation that we should make languages a compulsory subject at Key Stage 2 the next time we review the primary curriculum. I would therefore like your review to provide me with advice on how best to introduce this. It is important that the introduction to a broad range of subjects, including languages, should be manageable for schools and provide a coherent and

progressive learning experience for pupils.

Alongside essential knowledge, skills and understanding, personal development should be a central aspect of the primary curriculum. One of the messages from the Time to Talk consultation was that we should be concerned with development of the whole child as well as their level of attainment. Personal, social and emotional capabilities are closely related to educational attainment, success in the labour market and to children's wellbeing. Your review of the primary curriculum should consider how to develop a more integrated and simpler framework for the personal skills which all pupils should develop through their schooling. As you take this area of work forward we will want to ensure that it is consistent with our separate work to consider how we might provide a record of children's progress as they move through primary education and beyond.

Getting the content of the National Curriculum right presents difficult choices and balances. Your review should consider when and how in primary education children should be introduced to the key ideas and practice of the other principal subject areas of learning – the creative arts, the humanities, physical education and sport – as a preparation for further learning at the secondary stage. Your review should examine whether pupils should continue to be introduced to each existing National Curriculum subject from Year 1. I would welcome your advice on whether, in order to provide greater continuity from the EYFS, pupils' interests might be better served by

studying fewer subjects during primary education, particularly in Key Stage 1. You will also want to consider whether some aspects of the EYFS should be extended into the primary curriculum. This might include, for example, placing emphasis on the full range of areas of learning and development contained in the EYFS, including social and emotional areas of development, and widening the curriculum opportunities for child-initiated and play-based activity.

Transition from the EYFS to primary school can be difficult for some children. As part of supporting this transition, you may want to consider how the curriculum can support better use of information from their feeder early years settings and reception classes so that they understand their new pupils better and personalise their learning accordingly.

Entry to primary school can be problematic for summer-born children. For example, summer-born children are up to a year younger than their classmates when they sit tests at the end of each key stage. This can affect their performance right through school age up to the age of 16. I would like your review to give particular consideration to how we can design the curriculum to improve outcomes for summer-born children. In the Children's Plan consultation some parents indicated that they would like greater flexibility over when their children can start primary school – for example having the choice to start in September, January or a whole year later. The latest children in England can start primary school is at the beginning of the term immediately after their fifth birthday and we do

not plan to change this. But given the concerns expressed to us by parents I would like you to consider whether it would be appropriate to allow more choice and flexibility in start dates for children entering primary school.

The transition from primary to secondary education can also be a difficult one for some pupils, and I would like you to consider how reform of the primary curriculum might help to smooth this transition. Your review should build on developments in the new secondary curriculum and examine what information should be passed between primary and secondary schools. You will also want to discuss with Ofsted ways in which the accountability framework might be used to encourage both primary schools and secondary schools to renew their efforts in this area.

Your review is focused on the curriculum and is not considering changes to the current assessment and testing regime. However, as your review of the primary curriculum progresses you will need to take account of the Making Good Progress work and the development of single level tests.

I should be grateful if you would provide advice by 15 February on the prioritisation, sequencing and timescales of the work in this letter. I should like you to provide me with an interim report on your review by 31 October 2008 followed by final advice and revised programmes of study at the end of March 2009.

Throughout your review you will be closely supported by the Qualifications and Curriculum Authority (QCA), which will take the leading role in providing the evidence required for the review and which will manage the associated consultations. The QCA is also helping to staff your review secretariat alongside my officials.

I should be grateful if you would provide me, Jim Knight and Beverley Hughes with regular updates as your review progresses.

I am copying this letter to Sir Anthony Greener and Ken Boston.



Yours sincerely
Ed Balls MP

Annex B: Programmes of learning

Essentials for learning and life

Literacy

Focus: Children use and apply their literacy skills confidently and competently in their learning and in everyday contexts. They convey ideas and opinions clearly, and respond creatively and critically to a wide range of information and ideas.

Children learn how to:

1. **read fluently, listen and respond critically** to texts of all kinds, on paper and on screen, in order to access ideas and information
2. **talk clearly and confidently** about their thoughts, opinions and ideas, listening carefully to others so that they can refine their thinking and express themselves effectively
3. **write, present and broadcast** a range of ideas, in a wide variety of forms and with awareness of different audiences and purposes; communicate these ideas with accuracy on paper, on screen and through multimodal texts
4. **analyse, evaluate and criticise** a range of uses of language in order to draw out meaning, purpose and effect.

Numeracy

Focus: Children use and apply mathematics confidently and competently in their learning and in everyday contexts. They recognise where mathematics can be used to solve problems and are able to interpret a wide range of mathematical data.

Children learn how to:

1. **represent and model situations using mathematics**, using a range of tools and applying logic and reasoning in order to predict, plan and try out options
2. **use numbers and measurements** to support both accurate calculation and an understanding of scale, in order to make reasonable estimations
3. **interpret and interrogate mathematical data** in graphs, spreadsheets and diagrams, in order to draw inferences, recognise patterns and trends, and assess likelihood and risk
4. **use mathematics to justify and support decisions and proposals**, communicating accurately using mathematical language and conventions, symbols and diagrams.

ICT capability

Focus: Children use and apply their ICT knowledge, skills and understanding confidently and competently in their learning and in everyday contexts. They become independent and discerning users of technology, recognising opportunities and risks and using strategies to stay safe.

Children learn how to:

1. **find and select information** from digital and online sources, making judgements about accuracy and reliability
2. **create, manipulate and process** information using technology to capture and organise data, in order to investigate patterns and trends; explore options using models and simulations; and combine still and moving images, sounds and text to create multimedia products
3. **collaborate, communicate and share** information using connectivity to work with, and present to, people and audiences within and beyond the school
4. **refine and improve their work**, making full use of the nature and pliability of digital information to explore options and improve outcomes.

Essentials for learning and life

Learning and thinking skills

Focus: Children have the skills to learn effectively. They can plan, research and critically evaluate, using reasoned arguments to support conclusions. They think creatively, making original connections and generating ideas. They consider alternative solutions to problems.

Children learn how to:

1. **investigate**, asking relevant questions, identifying problems, analysing and judging the value of information and ideas, questioning assumptions. They plan systematically using time and resources effectively, anticipating, taking and managing risks
2. **create and develop**, using their imagination to explore possibilities and generate ideas. They try out innovative alternatives, looking for patterns, recognising differences and making generalisations, predicting outcomes and making reasoned decisions
3. **communicate**, interacting with different audiences in a variety of ways using a range of media
4. **evaluate**, developing criteria for judging work and suggesting refinements and improvements.

Personal and emotional skills

Focus: Children recognise how and when they learn best and can identify and address barriers to learning. They take responsibility for their own learning and show initiative, perseverance and a commitment to self-improvement. They recognise that achievement builds self-confidence and resilience, enabling them to deal positively with praise and constructive criticism.

Children learn how to:

1. **identify their strengths** and areas for development
2. **manage their feelings** using appropriate strategies, becoming increasingly aware of their own and others' feelings
3. **reflect** on past achievements and experiences to manage future learning and behaviour
4. **set goals** for their personal development and learning, and work towards them
5. **work independently**, knowing when to seek help, dealing with pressures and deadlines
6. **control their own physical movements** in a range of contexts with skill, dexterity and confidence.

Social skills

Focus: Children develop the skills to work well with other people. They are responsible and adaptable and anticipate others' views and feelings. They appreciate the value of rules for working together, and play an active part in group and classroom activities.

Children learn how to:

1. **listen and respond appropriately** to a wide range of people, showing empathy and understanding, and the confidence to raise their concerns
2. **adapt their behaviour** to suit different situations
3. **work collaboratively** towards common goals
4. **take turns and share** as appropriate, stating their own views and needs
5. **negotiate**, respecting others' rights and responsibilities, and use strategies to resolve disputes and conflicts
6. **give constructive support and feedback** to benefit others as well as themselves.

Understanding English, communication and languages

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the achievement of the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

English, communication and languages lie at the heart of our capacity to imagine, think, create and learn. Children develop the ability to communicate effectively and use language in order to make meaning explicit for themselves and others. Meeting, creating and responding to all kinds of texts, including those that combine words, images and sounds, offers access to the world of knowledge and generates lifelong enthusiasm and enjoyment. Literature in English is rich, varied and influential. It helps children to develop their imagination, see the world through the eyes of others and read and write for pleasure.

English is a major world language, and its secure and confident use opens many possibilities. Children develop skills in speaking, listening, reading and writing that enable them to communicate with confidence in a range of media and play a full part in life at school, at home and in the wider community. They become increasingly fluent and accurate in using languages to explore and express their thoughts and emotions, generate ideas, solve problems and think critically and creatively. Their developing use of language underpins success across the curriculum and lays the foundations for active involvement in cultural life, society, work and lifelong learning. Learning and using languages enables children to engage with different cultures and societies and further develops their understanding of how languages work.

Explanatory text:

1. Essential knowledge*

Children should build secure knowledge of the following:

- a. how language is used to express, explore and share information, ideas, thoughts and feelings
- b. the power of language and communication to engage people and influence their ideas and actions
- c. how creativity and imagination are essential to making new meanings, exploring and experimenting with language and creating effects
- d. how languages work, their structures and conventions, variations in use and changes over time
- e. how languages, literature and the media enable different ways of thinking and give access to ideas and experiences from different cultures and times.

2. Key skills

These are the skills that children need to learn to make progress:

- a. listen, read and view in order to understand and respond
- b. discuss, debate and draft in order to develop and explore ideas, themes and viewpoints
- c. speak, write and broadcast in order to present ideas and opinions
- d. evaluate, analyse and critique in order to review, refine and comment
- e. interact and collaborate in order to share understanding of what is said, read and communicated.

3. Breadth of learning

- a. Children should learn to develop and apply their speaking and listening skills¹ to suit a variety of audiences and for different purposes. They should tell and listen to stories and explore ideas and opinions in both formal and informal contexts. They should have opportunities to express themselves creatively in improvisation, role-play and other drama activities. Children should learn to use digital and visual media to support communication both face-to-face and remotely.

Explanatory text:

*Teachers will continue to find the literacy framework a significant basis for planning teaching.

1. This includes appropriate alternatives for children who communicate in other ways, for example sign language.

b. Children should read widely for pleasure and learn to become critical readers of an extensive range of texts². Their reading should include literature from different times and cultures³. Non-fiction reading should include information and reference texts as well as literary non-fiction⁴. Media texts⁵ and online social and collaborative communications should also be included. Children should work with writers, playwrights and poets in and beyond the classroom.

c. Through writing, children develop understanding that is essential to thinking and learning. They should come to see writing as an enjoyable, creative and rewarding experience. They should learn to write for a variety of purposes⁶ for a range of audiences⁷ and in a range of forms⁸. They should explore writing using different media including web-pages and multimodal⁹ formats in English and in other languages.

d. Children should engage with other languages¹⁰ including, where appropriate, those used in their community. They should look at the patterns, structures and origins of languages¹¹ in order to understand how language works. They should have opportunities to listen to and join in with conversation in other languages and build up a capacity to communicate on simple, everyday matters. Children should understand how learning other languages can help them appreciate and understand other cultures as well as their own.

Explanatory text:

2. These should include stories, poetry and drama as well as film, media and multimodal texts which combine words, images and sounds.
3. Literature should include picture books, poems, plays and stories including traditional and cultural tales, books by established authors, and a wide range of classic and modern poetry.
4. Literary non-fiction includes diaries, biographies and autobiographies.
5. Media texts include websites, films, newspapers, magazines, leaflets and advertisements.
6. Including to imagine, to explore experiences, to organise and explain information, to comment on what has been seen, read or heard, to argue, remember, persuade others and develop ideas.
7. Including other children, adults, the wider community, and imagined readers.
8. Including stories, poems, play scripts, storyboards, lists, captions, messages, reports, reviews and commentaries.
9. Multimodal texts combine two or more modes of communication (e.g. written, aural and visual) to create meaning. Examples include the combination of words and images in a magazine or newspaper, the combination of words, images, video clips and sound on a website or the combination of images, speech and sound in moving-image texts.
10. This may be one language or more.
11. Including different forms of communication, including sign languages.

4. Curriculum progression¹²

The overall breadth of learning section should be used when planning curriculum progression. Children should be taught:



ENGLISH AND COMMUNICATION

English and communication – speaking and listening

<p>E1. to organise what they say, giving relevant details and using appropriate vocabulary to make main points clear to the listener</p> <p>E2. to remember what they have heard, asking questions to clarify meaning</p> <p>E3. to reflect on how talk varies in different circumstances and for different listeners</p> <p>E4. to recognise when to use formal language including some features of spoken standard English</p> <p>E5. to recognise how talk is enhanced by non-verbal communication including gesture, eye-contact and by intonation and emphasis</p> <p>E6. to speak clearly, take turns, make relevant contributions, give opinions and listen to different views</p> <p>E7. to explore the imaginative use of language and the conventions of talk through role-play.</p>	<p>M1. to organise and shape what they say, selecting relevant ideas and using appropriate vocabulary to interest their listeners</p> <p>M2. to organise and adjust what they say according to listeners' needs, including the use of spoken standard English when appropriate</p> <p>M3. to identify the main points of what has been said and ask questions to clarify meaning</p> <p>M4. to reflect on their own and others' speech and investigate how it varies</p> <p>M5. to take different roles and make relevant contributions in group discussion and role-play</p> <p>M6. to explain their opinions and ideas, modifying them in the light of what they have heard</p> <p>M7. to use dialogue and discussion to build up and refine ideas collaboratively in groups</p> <p>M8. to convey action, themes and emotions through role-play and drama.</p>	<p>L1. to convey complex ideas, using different techniques for clarity and effect</p> <p>L2. to select relevant ideas and use appropriate vocabulary to engage and maintain the interest of listeners</p> <p>L3. to organise and adjust what they say, including the use of spoken standard English, according to the formality of the context, the needs of their listeners and any communication technology²³ being used</p> <p>L4. to evaluate their own and others' speech and identify how it varies</p> <p>L5. to sustain different roles, deal with disagreement and vary contributions in group discussion</p> <p>L6. to extend and justify their opinions and ideas, building on what they have heard</p> <p>L7. to use dialogue and discussion to build up and refine ideas, move groups on and reach agreement collaboratively</p> <p>L8. to identify differences between spoken and written language, both on paper and on screen, taking account of context, purpose and audience.</p>
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Explanatory text:

12. Progress in this area of learning is aligned with the National Strategies primary framework for literacy. Schools using the framework as the basis for their planning in English will be meeting the requirements for the English and communication elements of these statutory orders.

14. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress.

Explanatory text:

23. Including webcams, podcasts and video.

English and communication – reading

<p>E8. to hear, identify, segment and blend phonemes in the order in which they occur in words to decode text</p> <p>E9. to link sounds and letter patterns using their knowledge of the alphabet and identify syllables in high-frequency and familiar words</p> <p>E10. simple grammar including how word order affects meaning</p> <p>E11. to make connections between different parts of texts¹⁵ and the meaning as a whole</p> <p>E12. to use screen-based and book conventions to search for information efficiently¹⁶ and safely</p> <p>E13. to recognise how writers and poets select words and use patterns of rhythm, rhyme and sound to create effects</p> <p>E14. to identify characters and retell and enact narratives</p> <p>E15. to identify the characteristic features of texts with different purposes.</p>	<p>M9. to focus on the meaning of the text as a whole, identifying features of text and understanding their use</p> <p>M10. to use inference and deduction to find meaning beyond the literal</p> <p>M11. to make connections between different parts of a text and with other texts they have read</p> <p>M12. to skim, scan and use key word searches and other features of texts to locate and select information¹⁹</p> <p>M13. to verify the accuracy and reliability of information, distinguishing between fact and opinion</p> <p>M14. to recognise and describe how writers and poets select words and use a variety of language forms and structures to create effects</p> <p>M15. to recognise how authors of moving-image and multimodal texts use different combinations of words, images and sounds to create effects and make meaning</p> <p>M16. to identify different structural and organisational features and different presentational devices²⁰, layouts and combinations of formats and how they affect meaning</p> <p>M17. to respond critically to arguments and recognise how they are constructed</p> <p>M18. to explore and reflect on characters, ideas and themes in narratives.</p>	<p>L9. to use inference and deduction to understand layers of meaning</p> <p>L10. to make connections and comparisons between different parts of a text and with other texts they have read</p> <p>L11. to verify the accuracy and reliability of information, including from online sources, detect bias and distinguish evidence from opinion</p> <p>L12. to search for information using ICT and other methods and make choices about the appropriateness of the information²⁴</p> <p>L13. to evaluate techniques used by writers and poets commenting on how effective they are</p> <p>L14. to recognise and use some conventions for conveying meaning in moving-image and multimodal texts</p> <p>L15. to evaluate structural and organisational features, including the use of different presentational devices²⁵, layouts and combinations of formats, and their effects</p> <p>L16. to evaluate ideas and themes that broaden perspectives and extend thinking</p> <p>L17. to express and justify preferences by referring to the texts</p> <p>L18. to identify the use of specialist vocabulary and of structures and techniques associated with different forms and purposes of writing</p> <p>L19. to critique views, opinions and arguments</p> <p>L20. to reflect on viewpoints in narratives and to distinguish between those of the characters and those of the author.</p>
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Explanatory text:

15. Texts are defined widely and cover paper-based formats but also films, digital media and websites in English and other languages.
16. Including using hyperlinks and simple menus on webpages.

Explanatory text:

19. This includes the use of key words in search engines to locate and select information on the internet.
20. These textual devices should cover those used in literary and non-literary written texts, films and multimodal formats.

Explanatory text:

24. This includes using more advanced search features, such as searching for a phrase using quotation marks, to locate information.
25. These textual devices should cover those used in literary and non-literary written texts, films and multimodal formats.

English and communication – writing

- E16. to plan, discuss and review their work in order to improve it including using ICT where appropriate
- E17. to create and shape their writing for different readers, choosing appropriate vocabulary
- E18. to combine written text with illustration, moving image and sound
- E19. to communicate with known audiences using ICT where appropriate¹⁷
- E20. to recognise and use different sentence constructions, exploring how ideas are linked within and between sentences and how nouns, verbs and adjectives are used
- E21. how paragraphs, bullets, screen layout and headings are used to organise and link ideas, and to use these in their own work
- E22. how punctuation¹⁸ affects meaning, clarifies structure and represents pace and emphasis
- E23. to segment phonemes, identify morphemes in words and recognise and apply common spelling patterns and conventions
- E24. to form letters correctly and type accurately.

Explanatory text:

17. Including through the school website and email to parents or carers.
18. Including full stops, commas and exclamation marks.

- M19. to create and shape their writing, using different techniques to interest the reader
- M20. to select form, content and vocabulary to suit particular purposes
- M21. to create effects by combining written text with illustration, moving image and sound
- M22. to share ideas and collaborate with others remotely using ICT²¹
- M23. to plan, develop and review their work in order to improve it, understanding how language varies in different formats
- M24. to use features of layout, presentation and organisation in print and on screen
- M25. how paragraphs, bullets, hyperlinks, screen layout and headings are used to organise and link ideas, and to use these in their own work
- M26. to recognise and use different types of sentences, exploring how ideas are linked within and between sentences
- M27. the function of punctuation within sentences and using it to clarify structure and represent emphasis
- M28. to recognise and apply common spelling patterns, conventions, and spell check techniques, using knowledge of word families and the roots and origins of words
- M29. to form and join letters fluently and correctly and type accurately.

Explanatory text:

21. Including videoconferencing and webcams.

- L21. to plan, create, shape and review their work, knowing when and how to improve it including the use of ICT
- L22. to select form, content, style and vocabulary to suit particular purposes and readers
- L23. to combine written text and illustration, moving image and sound, integrating different effects to add power to the words and meanings
- L24. to synthesise ideas using ICT by combining a variety of information from different sources
- L25. to communicate and collaborate with others remotely and in locations beyond the school by selecting and using appropriate ICT²⁶
- L26. to use features of layout, presentation and organisation effectively in written and on-screen media
- L27. how paragraphs, bullets, hyperlinks, screen layout and headings are used to organise and link ideas, and to use these in their own work
- L28. to explore how ideas are linked within and between sentences
- L29. the function of punctuation within sentences and how to use it to clarify structure and development in what they write
- L30. to recognise and apply common spelling patterns for regular and irregular words, using conventions and spellchecking techniques as well as their knowledge of the origins of words and how spelling has changed over time
- L31. to gain fluency in handwriting and keyboard use.

Explanatory text:

26. Including forms and conventions for electronic media and communicating to unknown audiences.

LANGUAGES¹³

Languages – speaking and listening

- M30. to identify and respond to key sounds, rhymes and rhythm in the new language
- M31. to experiment with and practise making the sounds of the new language
- M32. to begin to assign meaning to words and sounds that are unfamiliar
- M33. to recognise and respond to familiar words, word categories and short sentences that they hear
- M34. to engage in conversations and ask and answer questions
- M35. to understand simple conventions of different languages²².
- L32. to try to make sense of unfamiliar language that they hear²⁷
- L33. to understand the main points of what people say
- L34. to engage in conversation, expressing their own opinions and responding to the opinions of others
- L35. to present ideas and information to a range of audiences, selecting appropriate ways of expressing themselves.

Languages – reading and writing

- M36. to recognise and understand familiar words, phrases and simple sentences
- M37. to read and interpret a range of simple texts
- M38. to select and use familiar words and phrases to convey meaning in written text.
- L36. to understand the main points and some of the details of texts they read
- L37. to read aloud with expression and accuracy
- L38. to recognise and apply the links between the sounds and spelling of a language
- L39. to express ideas in sentences and short texts.

Explanatory text:

13. The study of languages other than English is not statutory for children before Year 3 but schools are free to offer this if they wish. Even if a language or languages are not formally taught, children can be helped to notice and discuss the languages around them, look for similarities with what they already know and develop positive attitudes dispositions to language learning and language variety. Progress in this area of learning is aligned with the Key Stage 2 Framework for Languages. Schools using the Framework as the basis for their planning in Languages will be meeting the requirements for the languages element of these orders.

22. This includes ways of saying hello, goodbye and thank you and showing respect in conversation.

Explanatory text:

27. This includes using a range of techniques such as making analogies and interpreting from contextual and non-verbal clues.

LANGUAGES¹³

Languages – intercultural understanding

- M39. to understand that different languages are spoken in different parts of the UK and the world
- M40. to recognise that languages have words and features in common as well as differences
- M41. to explore similarities and differences in everyday life, traditions and celebrations in different cultures and countries.

- L40. to empathise with others and imagine how others may see their own way of life and culture
- L41. to compare attitudes²⁸ to different languages and reflect on the importance of respect for others.

Explanatory text:

28. Looking at how different cultures are represented, and how they represent themselves, in media and popular cultural forms.

5. Cross-curricular studies

- a. This area of learning provides opportunities for children to develop and apply their literacy, numeracy and ICT skills. Developing children's literacy is fundamental to English, communication and languages so that they can use these skills to access knowledge and improve their learning. ICT is a creative tool for communication, used to locate information and to create, improve and present work. Children develop their language skills in problem solving contexts
- b. This area of learning also provides opportunities for personal, emotional and social development. In particular, responding to literature and expressing their own emotions through language increases children's self-awareness, empathy with, and understanding of others. Opportunities to listen and respond, work collaboratively, negotiate and give constructive feedback, develop children's language skills and their ability to work well with others
- c. Children's learning in this area is enhanced by links to other areas of learning and to wider issues of interest and importance. Making connections with children's personal interests and issues that affect them can also enhance learning by providing opportunities to take part in activities with real purposes and audiences. Developing and applying children's knowledge of oral and written language is integral to all learning, enabling the development of thought and understanding.

Mathematical understanding

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

Mathematics introduces children to concepts, skills and thinking strategies that are useful in everyday life and support learning across the curriculum. It provides a way of handling information and making sense of data in an increasingly digital world.

Children draw great satisfaction from using their mathematical skills to solve a problem, often gaining a sense of wonder and excitement when it leads them to an unexpected discovery or allows them to make new connections. As their confidence grows, they are able to build on their natural inquisitiveness and creativity by investigating patterns, conjectures and generalisations and trying different methods to provide solutions.

Mathematics helps children make sense of the numbers, patterns and shapes they see in the world around them. With the logical reasoning and systematic thinking they learn in mathematics, children can solve problems, make estimates, use evidence to construct persuasive arguments and explore 'what if?' questions using mathematical models.

The precise and unambiguous nature of mathematical statements introduces children to a powerful way of communicating. They learn to explore and explain their ideas using symbols, diagrams and spoken and written language. They start to discover how mathematics has developed over time and contributes to our economy, society and culture.

Explanatory text:

1. Essential knowledge

Children should build secure knowledge of the following:

- a. the ways that numbers are used and what they represent
- b. how numbers can be used for quantification and comparison and applied in different contexts
- c. how to use geometry to explore, understand and represent shape and space
- d. how likelihood and risk can be understood, quantified and used in everyday life
- e. the range of ways mathematics can be used to solve practical problems, model situations, make sense of data and inform decision making.

2. Key skills

These are the skills that children need to learn to make progress:

- a. generate and explore ideas and strategies, pursue lines of mathematical enquiry and apply logic and reasoning to mathematical problems
- b. make and test generalisations, identify patterns and recognise equivalences and relationships¹
- c. develop, select and apply a range of mental, written and ICT-based methods and models to estimate, calculate, classify, quantify, order and compare
- d. communicate ideas and justify arguments using mathematical symbols, diagrams, images and language
- e. interpret findings, evaluate methods and check outcomes.

Explanatory text:

Teachers will continue to find the numeracy framework a significant basis for planning teaching.

1. This includes families of equivalent fractions; the inverse relationship between addition and subtraction.

3. Breadth of learning

- a. Children should experience mathematics as a creative activity and be introduced to its role in the world around them. They should develop their mathematical understanding through focused, practical, problem-solving activities in mathematical, cross-curricular and real world contexts. Children should have opportunities to meet with people who use mathematics in their work. They should also use a wide range of practical resources, including ICT. Working on their own and with others they should explore ideas and pursue lines of mathematical enquiry.
- b. Children should be taught to think and work logically, creatively and critically as they solve problems, make sense of information, manage money, assess likelihood and risk, predict outcomes and construct conjectures and arguments.
- c. They should be taught to visualise quantities, patterns and shapes and develop strategies for working things out in their head as well as on paper and using ICT. They should make choices about the strategies they use to solve problems, based on what they know about the efficiency and effectiveness of different approaches. They should also be introduced to the mathematical language they need to explain, refine and evaluate their own and others' work.

Explanatory text:

4. Curriculum progression

The overall breadth of learning should be used when planning curriculum progression. Children should be taught:

EARLY ²	MIDDLE	LATER
<p>Number and the number system</p> <p>E1. to estimate the number of objects and count them, recognising conservation of number</p> <p>E2. read, write and order numbers to 100 and beyond using a range of representations³</p> <p>E3. to explore and explain patterns⁴, including number sequences in the counting system</p> <p>E4. to group, match, sort, partition and recombine numbers, developing an understanding of place value.</p>	<p>M1. to understand and interpret negative numbers, simple fractions¹⁶, large numbers and tenths, written as decimals, in practical and everyday contexts</p> <p>M2. to generate and explore a range of number patterns, including multiples¹⁷</p> <p>M3. to make and test general statements about numbers, sort and classify numbers and explain methods and findings</p> <p>M4. to approximate numbers, including rounding¹⁸, and understand when that can be useful</p> <p>M5. about the representation of number in different contemporary cultures¹⁹.</p>	<p>L1. to use decimals up to three decimal places in measurement contexts</p> <p>L2. to understand and use the equivalence of families of fractions and their decimal representation when ordering and comparing</p> <p>L3. to explore number patterns and properties²⁸, and represent them using graphs, simple formulae and ICT²⁹</p> <p>L4. about the development of the number system³⁰</p> <p>L5. to interpret computer and calculator displays and round to an appropriate level of accuracy.</p>
<p>Explanatory text:</p> <p>2. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress.</p> <p>3. For example, number lines, number squares, structural apparatus.</p> <p>4. This includes additive number sequences, such as counting in groups of e.g. 2, 5 or 10, odds and evens; and relationships between numbers; e.g. the sum of two odd numbers is always even. Using calculators to explore number patterns and properties is important here.</p>	<p>Explanatory text:</p> <p>16. Simple fractions include half, third, quarter, fifth, tenth, two thirds and three quarters.</p> <p>17. Using ICT for changing values and exploring in a spreadsheet model.</p> <p>18. For example rounding to the nearest ten, hundred and thousand.</p> <p>19. For example Arabic, Chinese and Indian numerals.</p>	<p>Explanatory text:</p> <p>28. This includes factors, primes and square numbers.</p> <p>29. Changing variables and rules in spreadsheet models; using graphing software.</p> <p>30. For example, the Roman and Egyptian number systems do not use a place value; Babylonian numbers and Mayan numbers use base 60 and base 20 respectively; Greeks explored square and triangle numbers.</p>

Number operations and calculation

<p>E5. a range of strategies for combining, partitioning, grouping and sharing (including doubling and halving) and increasing and decreasing numbers, to solve practical problems⁵.</p> <p>E6. to use number bonds to ten to add and subtract mentally⁶ numbers with one or two significant figures</p> <p>E7. to represent addition and subtraction as number sentences including finding missing numbers and understanding the equals sign⁷.</p>	<p>M6. to compare two numbers by finding the difference between them²⁰</p> <p>M7. to use the relationship between addition and subtraction²¹ and addition and multiplication to understand and generate equivalent expressions²²</p> <p>M8. to use simple fractions to find fractional parts and express proportions</p> <p>M9. to select from a range of mental strategies for the addition and subtraction of numbers with two significant figures</p> <p>M10. to understand division as grouping and as sharing and solve division problems using multiplication facts²³</p> <p>M11. to visualise and understand multiplication represented as an array, record multiplication as number sentences and solve problems using multiplication facts</p> <p>M12. to use estimation to find approximate answers to calculations²⁴, to record calculations and check answers and methods.</p>	<p>L6. to use simple ratio³¹, percentages and fractions to compare numbers and quantities and solve problems</p> <p>L7. to extend their knowledge of multiplication facts to 10 x 10 and use them to solve multiplication and division problems</p> <p>L8. to understand and use different models of division, including interpreting the outcome of a division calculation, in relation to the context, where the answer is not a whole number</p> <p>L9. to recognise and use the relationship between fractions and division and represent division as number sentences³²</p> <p>L10. to recognise and use the relationships between addition, subtraction, multiplication and division</p> <p>L11. to develop a range of strategies for calculating and checking, including using a calculator or computer efficiently</p> <p>L12. to solve multi-step problems involving more than one operation.</p>
<p>Explanatory text:</p> <p>5. This lays the foundations for understanding number operations. For example $700 + 300 =$; $60 + \square = 100$; $57 + 33 =$; $57 - 8 =$; this develops their understanding of the inverse relationship between addition and subtraction.</p> <p>7. For example $3 + 1 = 1 + 3$, $3 + 1 = \square + 2$; $3 + 1 = 5 - \square$.</p>	<p>Explanatory text:</p> <p>20. For example finding how much the temperature changed.</p> <p>21. For example, since $54 + 37 = 91$, $91 - 37 = 54$ and $91 - 54 = 37$.</p> <p>22. For example $3 \times 13 = 3 \times 10 + 3 \times 3$; $5 \times 19 = 5 \times 20 - 5 \times 1$.</p> <p>23. Multiplication facts should include 2, 3, 4, 5 and 10.</p> <p>24. For example to estimate the cost of an apple sold in a pack of four or to recognise that $296 + 735$ will be approximately 1000.</p>	<p>Explanatory text:</p> <p>31. For example 45 is three times greater than 15, they are in the ratio 3:1.</p> <p>32. For example $325 \div 5 = (300 + 25) \div 5 = 300 \div 5 + 25 \div 5$ or $325/5 = 300/5 + 25/5$.</p>

Money

<p>E8. to use coins of different values and recognise the equivalence of different combinations of coins⁸</p> <p>E9. to compare and order costs of different items.</p>	<p>M13. to record amounts of money using pounds and/or pence, converting between them as appropriate</p> <p>M14. how to handle amounts of money in the contexts of shopping, saving up and enterprise activities²⁵.</p>	<p>L13. to solve problems related to borrowing, spending and saving³³</p> <p>L14. to understand and convert between different currencies</p> <p>L15. how to manage money³⁴ and prepare budgets for events, including using spreadsheets.</p>
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Measures

<p>E10. to compare and order objects and events⁹</p> <p>E11. to create and use whole number scales¹⁰ to measure.</p>	<p>M15. to recognise when length and capacity are conserved</p> <p>M16. to use standard units to estimate measures and to measure with appropriate accuracy</p> <p>M17. to recognise and use equivalent representations of time</p> <p>M18. to measure angles using fractions of turn and right angles</p> <p>M19. to explore the development of different measuring systems, including metric and Imperial measures.</p>	<p>L16. to recognise when area, volume and mass are conserved</p> <p>L17. to convert between units within the metric system</p> <p>L18. to use an angle measurer to measure angles in degrees</p> <p>L19. to solve problems involving time and time intervals, including time represented by the 24-hour clock</p> <p>L20. use decimal calculations to solve problems with measures.</p>
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Explanatory text:

8. Including in the context of buying and selling involving role play.
9. This includes mass and length, for example answering questions such as 'which is heaviest?' or 'which is longest?'
10. Number scales include standard and non-standard units.

Explanatory text:

25. For example to find and compare unit costs of items that are sold in multiple unit quantities.

Explanatory text:

33. This includes using and interpreting information from external sources and making decimal calculations.
34. This includes using the context of enterprise activities where children need to work out a range of budgetary options, developing awareness of profit and loss.

Geometry

- E12. to identify, group, match, sort and compare common shapes¹¹ using geometric properties¹².
- E13. to identify, reproduce and generate geometric patterns including the use of practical resources and ICT
- E14. to generate instructions for movement¹³.

- M20. to recognise symmetry properties of 2D shapes and patterns
- M21. to make simple scalings²⁶ of objects and drawings
- M22. to understand and use angle as the measure of turn
- M23. to understand perimeter as a length and to find the perimeter of rectangles and other shapes
- M24. to create sequences of instructions using ICT, including generating symmetric and repeating geometric patterns.

- L21. to use and make maps, scale models and diagrams for a purpose
- L22. to understand area as the space enclosed by a perimeter on a plane, and find areas of rectangles and related shapes³⁵
- L23. to solve practical problems involving 3D objects³⁶
- L24. to visualise geometric objects³⁷ and to recognise and make 2D representations of 3D shapes
- L25. to create and refine sequences of instructions, using ICT to construct and explore geometric patterns and problems³⁸
- L26. to explore aspects of geometry to find out about its origins³⁹, and its use in different cultures, religions, art and architecture⁴⁰.

Explanatory text:

11. Common shapes include triangle, square, rhombus, rectangle, oblong, kite, parallelogram, circle, cube, prism, pyramid, cylinder, cone, and sphere.
12. Geometric properties include edges, vertices, faces, straight, curved, closed and open.
13. For example using a programmable toy or describing a familiar journey including change of direction.

Explanatory text:

26. Simple scales include half, twice and ten times.

Explanatory text:

35. This includes triangles and shapes that are made up of triangles and rectangles including the surface area of 3D objects.
36. This includes developing understanding of the volume of cuboids by solving problems such as what is the smallest possible box to hold six smaller boxes?
37. This includes imagining what something will look like in different orientations.
38. This should include use of procedures to improve efficiency of sequences.
39. For example Greek architecture and discoveries, stone circles and Pyramids.
40. For example Islamic patterns, Japanese temple art, Rangoli patterns, modern art and ancient and modern architecture.

Statistics

- E15. to generate and explore questions that require the collection and analysis of information
- E16. to collect, group, match, sort, record and represent information¹⁴ for a purpose and store it using ICT¹⁵
- E17. to interpret and draw conclusions from information they have collected¹⁵.

- M25. to collect and structure information using ICT so that it can be searched and analysed, including using appropriate field headings and data types²⁷
- M26. to use frequency diagrams and bar charts to represent and record information
- M27. to interpret their own and others' data.

- L27. how statistics are used in society today⁴¹
- L28. to use mean, mode, median and range to summarise and compare data sets
- L29. to use data to assess likelihood and risk and develop an understanding of probability through computer simulations, games and consideration of outcomes of everyday situations
- L30. to discuss, sort and order events according to their likelihood of occurring
- L31. to answer questions or test hypotheses by using ICT to collect, store, analyse and present data⁴²
- L32. to use ICT to represent data⁴³ on a scattergraph, and proportional data⁴⁴ in a pie chart in order to explore possible relationships and interpret the findings⁴⁵.

Explanatory text:

14. This includes using Venn and Carroll diagrams, simple frequency diagrams and simple data handling software to create tables and graphs.
15. Including outcomes from using simple data-handling software.

Explanatory text:

27. Analysis should include discussion about 'reasonableness' of outcomes.

Explanatory text:

41. For example statistics are used to inform the public about how the local council spend their money; to monitor safety in factories; to inform decisions about whether to install traffic lights; or to decide what stock to order.
42. For example using data types including text; number, date, currency, yes/no and error checking through inspecting outcomes.
43. For example height and weight for a chart on a child's development.
44. Proportional data means data where fractions of the population are represented, such as how a council spends its budget, or how all the children in a class travel to school.
45. This should include understanding how these diagrams work and choosing the appropriate representation to present the data.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply the skills of literacy, numeracy and ICT, particularly through the use and practice of the language of mathematics in discussions, writing and role play. This develops their ability to articulate their ideas, negotiate meanings, record their work logically and accurately and explain their reasoning when solving problems that require the use of mathematics. They use ICT to explore geometric properties and develop visual imagery; access information on the internet; explore possibilities when using mathematical models; and present mathematical information and outcomes.
- b. to extend their personal, emotional and social development, particularly through developing logical argument, systematic organisation, pattern recognition, generalisation and critical thinking. Through learning to work collaboratively with others they develop empathy and learn to respect others' ideas.
- c. to enhance their mathematical understanding through making links to other areas of learning and to wider issues of interest and importance, in particular through appreciating the power of mathematics when collecting and making sense of experimental data in scientific and technological understanding; exploring the geometry of art based on patterns in art and design; and creating timelines, using plans and maps and using data to analyse a real problem in the community in historical, geographical and social understanding.

Scientific and technological understanding

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

Learning and undertaking activities in this area of learning contribute to achievement of the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

This area of learning develops children's ability to explore and understand the natural and made worlds. It builds on their natural curiosity, inventiveness and wonder and helps them make sense of the world around them. They learn to appreciate how science supports the development of technology and how technological needs lead to new scientific discoveries, shaping how we live in our rapidly changing society.

Children learn to frame and answer questions and solve problems using experimental methods and other practical techniques, drawing on their scientific understanding to inform their designing and making. They develop valuable skills, such as generating and testing ideas, gathering and making sense of evidence, developing possible solutions, and evaluating processes and outcomes. They learn to distinguish evidence from opinion and communicate their findings in a variety of ways.

As their understanding grows, children gain awareness of the ways that learning in science and design and technology inform other areas of learning, including historical, geographical and social understanding. This will help them to make informed choices about the way they want to live in and shape the natural and made worlds.

Explanatory text:

1. Essential knowledge

Children should build secure knowledge of the following:

- a. the power of creative ideas and approaches in science and technology to explore and explain our world, solve problems and bring about positive change
- b. how information and valid evidence underpin ideas and practice in science and technology
- c. how science and human needs interact to create new knowledge, technologies and products
- d. how the natural and made worlds are interdependent and interrelated so that actions in one may have consequences in the other.

2. Key skills

These are the skills that children need to learn to make progress:

- a. observe and explore¹ to generate ideas, define problems and pose questions in order to develop investigations and products
- b. engage safely in practical investigations and experiments² and gather and record evidence by observation and measurement³
- c. apply practical skills to design, make and improve products safely², taking account of users and purposes
- d. communicate⁴ and model in order to explain and develop ideas and share findings and conclusions
- e. continually make systematic evaluations when designing and making, to bring about improvements in processes and outcomes⁵.

3. Breadth of learning

- a. Children should be encouraged to investigate science and design and technology, sharing their expertise in subjects that interest them and responding to relevant and current issues, locally and in the national media. They should apply their knowledge and understanding in real life contexts, relating it to the world around them and visiting places⁶ to learn about science and design. Children should also work with experts and enthusiasts to find out how science and design and technology are used and applied in day-to-day life.

Explanatory text:

1. This includes obtaining information from a range of different primary and secondary sources, including the internet, and using simulations to predict outcomes of experiments and explore environments, parts and products that are hard to access in reality.
2. This includes selecting suitable tools, equipment and components and controlling risks to themselves and others.
3. This includes using ICT for data logging.
4. This includes using appropriate language to name, describe, explain or evaluate designs, living things, materials, processes and products.
5. This includes reviewing ideas, information and existing products; plans, methods and processes; conclusions and solutions; and includes using ICT for organising information.
6. This includes exploring remote or imaginary locations through the use of ICT in order to encounter environments, products, people and places beyond the immediate locality.

- b. Children should explore a range of familiar and less familiar contexts, environments and products⁷ in experiments and designing and making activities. They should develop practical skills⁸ that will help them to carry out investigations and to make functional products from their design ideas.
- c. Children should be encouraged to think creatively and inventively about how things work⁹, identify patterns and establish links between causes and effects. They should test their ideas through practical activities, applying their knowledge and understanding to review their own and others' ideas and investigations. They should also use design and technology contexts to develop scientific understanding and apply their scientific knowledge to inform their designing and making.
- d. Children should carry out their own investigations, using their scientific knowledge and understanding to decide what kind of evidence to collect and what equipment and materials to use. They should suggest the results they expect and explain their observations and the significance and limitations of the conclusions they draw.
- e. Children should also develop their own design ideas, creating and improving designs for products, mechanisms, structures, systems and control¹⁰. They should explore and investigate different materials¹¹, and use them to provide functional solutions to meet user needs, evaluating and refining their products as they work.

Explanatory text:

7. This includes investigating functional products to find out how they work, how they are made, and how they meet the needs of the intended user and purpose.
8. Practical skills when making purposeful products include choosing equipment, measuring, marking out, cutting and shaping a range of materials, and assembling, joining and combining components and materials accurately and finishing techniques that help to improve the appearance of their product.
9. This includes living things and products.
10. Such as computer aided design (CAD).
11. This includes making observations in a variety of ways, including electrical and mechanical components, mouldable materials, stiff and flexible sheet materials, and textiles.

4. Curriculum progression

The overall breadth of learning should be used when planning curriculum progression. Children should be taught:



Across the area of learning

- E1. to explore and observe¹³ in order to collect data and describe¹⁴ and compare their observations and findings
- E2. to use their knowledge and understanding in their practical work and when evaluating their findings and products¹⁵
- E3. to sort and group information using ICT to inform investigations and designs
- E4. to sort, group and identify familiar living things and materials according to observable features and properties¹⁶
- E5. to investigate the properties of everyday materials¹⁷, find out where they come from, how and why they are used, how they can be changed¹⁸ and how they can be disposed of or recycled
- E6. to take account of simple properties of materials when deciding how to cut, shape, combine and join them, and consider users and purposes when designing
- E7. to explore changes in the way things move by using push and pull forces.

Explanatory text:

12. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress.
13. Including showing interest and curiosity, noticing changes, asking questions, saying what they think might happen and using secondary sources.
14. This includes recording and communicating using talk, drawings, photographs, prepared tables and pictorial representations of data such as sorting circles, pictograms and scattergrams.
15. This includes decision making when collecting data, making products, comparing observations and giving their opinion.
16. This includes 'living and never-lived', the main external body parts of plants and animals and sensory properties of materials.
17. Including construction materials, components, textiles and ingredients.
18. Including simple product investigation – manipulating, heating and cooling.

- M1. to explore and investigate in order to collect data, analyse it and identify patterns
- M2. to use their knowledge and research to inform designs for functional products and plans for investigations
- M3. to capture, record and analyse data using a range of instruments²³, including sensors
- M4. to offer simple explanations for their findings
- M5. to evaluate their skills, findings and outcomes using given criteria.

Explanatory text:

23. This includes using equipment to observe and measure, predicting different things that might happen, using secondary sources where appropriate, drawing their own tables for straightforward data and completing prepared bar charts.

- L1. to ask questions that can be answered by different types of investigative activity and decide the best approach to use³⁶
- L2. to choose equipment and tools, including ICT, to make their work more effective and efficient, and explain the reasons for their choices
- L3. to make and record accurate measurements and detailed observations, presenting them appropriately³⁷, and analyse and interpret them
- L4. to devise simple criteria to evaluate their approaches, products and outcomes
- L5. to explore and explain how significant innovations and inventions³⁸ have come about and how they have changed the way people live
- L6. to use ideas from other cultures and times to inform their own experiments, investigations and designs.

Explanatory text:

36. This includes selecting equipment, including ICT such as sensors and data logging devices, to make appropriate observations and measurements, deciding how many measurements and repeats to use and how to record them, and using secondary sources where appropriate.
37. This includes using scientific and technical language, together with bar charts and prepared line graphs to present results.
38. This includes exploring the contributions of historically significant scientists, technologists and engineers.

Across the area of learning

- E8. to explore simple mechanisms and structures to investigate how they work¹⁹
- E9. to give instructions to make things happen using programmable devices
- E10. to explore simple electrical circuits and find out how electricity is used in the home, at school and in some products
- E11. to explore sources of light and sound and how we sense them²⁰
- E12. to explore ways of keeping living things alive and healthy²¹, treating them with care and sensitivity
- E13. to investigate their local environment and use their findings to inform actions to care for²², and improve it.

Explanatory text:

19. For example, a wheel and axle in a toy vehicle.
20. This includes light and dark, shadows and reflections and sources of light and sound.
21. This includes movement, reproduction, sensitivity, growth and nutrition in plants, animals and humans.
22. This includes looking at how, for example, the production of some materials can affect our world.

Design and technology

- M6. to apply knowledge, skills and understanding when designing and making products using construction materials, textiles and ingredients
- M7. to use a variety of methods²⁴ to explore design alternatives and to test fitness for purpose of materials, components and techniques
- M8. to apply knowledge of mechanical and electrical control when designing and making functional products
- M9. to refine sequences of instructions to control events or make things happen using ICT²⁵.

- L7. to make controllable systems or models, devising and refining³⁹ sequences of instructions taking into account users, purposes and needs
- L8. to consider the implications of familiar designs and products for the environment and different communities.

Science

- M10. to investigate how light and sound travel and how shadows and sounds are made
- M11. to investigate the effects of different forces²⁶ and how they can use these to move mechanical parts²⁷ or objects in specific ways
- M12. to identify, group and select materials²⁸ using properties²⁹ and behaviours³⁰ that can be tested, and identify and group living things using observable features and other characteristics³¹.

Science – energy, movement and forces

- L9. to investigate and explain the effect of changes in electrical circuits
- L10. to investigate the properties and behaviour of light and sound in order to describe and explain familiar effects⁴⁰
- L11. to investigate combinations of forces⁴¹.

Explanatory text:

39. Including the use of conditional statements, procedures or subroutines.
40. This includes how we see things, how shadows are formed and how to change the pitch and loudness of sounds produced by musical instruments.
41. This includes opposite forces, more than one force acting on an object and representing them diagrammatically.

Explanatory text:

24. Including using different components to improve the function of a product.
25. For example to control events in a lighting sequence or make things happen when controlling a device such as a model vehicle.
26. Different forces include magnetic forces, gravitational attraction, friction and air resistance.
27. This includes those in the human body.
28. This includes rocks and soils, and grouping into solids, liquids and gases.
29. This includes electrical, thermal and magnetic.
30. This includes reversible and non-reversible changes.
31. Including habitat (for example water, land and air) and diet (for example other animals, plants or a combination).

Science

- M13. to investigate what happens when materials are mixed, and whether and how they can be separated³² again
- M14. to apply scientific knowledge and understanding³³ to grow healthy plants and explain how humans and other animals stay fit and healthy
- M15. to investigate the physical characteristics³⁴ of the local environment and the living things in it³⁵, comparing them with those from another locality.

Explanatory text:

32. This includes separating solids from mixtures by sieving and filtering and by magnetic separation.
33. This includes the structure and function of the parts of a plant and the relationship between them.
34. Including the appearance, texture and permeability of rocks and soils.
35. This includes food chains.

Science – material behaviour

- L12. to explore, explain and use reversible and non-reversible changes⁴² that occur in the world around them
- L13. to investigate how non-reversible changes can be used to create new and useful materials.

Science – life and living things

- L14. to apply knowledge and understanding to describe and explain the structure and function of key human body systems including reproduction⁴³
- L15. to investigate the structure, function, life cycle and growth of flowering plants and explain how these are linked
- L16. to investigate, identify and explain the benefits of micro-organisms and the harm they can cause⁴⁴.

Explanatory text:

42. For example the reversible changes that occur when separating soluble solids from liquids and the non-reversible changes of the breakdown of food by micro-organisms.
43. This should also include digestion (teeth and food), circulation (heart and pulse rate), skeleton (muscles and movement) and growth. This should be related to caring for the human body.
44. The benefits include breaking down waste and use in the making of bread, the harm includes causing disease and making food go mouldy.

Science – the environment, Earth and solar system⁴⁵

- L17. to investigate and explain how plants and animals are interdependent⁴⁶
- L18. to investigate and explain how scientific and technological developments affect the physical and living worlds⁴⁷
- L19. to explore and explain practical ways in which science can contribute to a more sustainable future.

Explanatory text:

45. This includes looking at how day and night and time measurements (day, month and year) are related to the spin of the Earth and the orbit of the Earth and moon.
46. This includes green plants as producers and animals as consumers; the ways in which plants depend on animals including pollination, seed dispersal and nutrients; fertilisers as plant nutrients and growing plants.
47. Scientific and technological developments that affect the physical and living worlds include the consideration of medicine and health, farming and agriculture, travel, communication and entertainment, pollution and global climate change.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply the skills of literacy, numeracy and ICT, in particular by developing and using specialist vocabulary and meaningful contexts for fiction and non-fiction writing, including evaluating their own and others' products or experiments and writing reports. Within the area of learning children also talk for a range of purposes including evaluating products and experiments in order to test and refine their outcomes and conclusions. Children develop their reading skills through researching on paper and on screen in order to plan investigations and design products. The area of learning also provides purposeful contexts for children to develop and apply mathematical skills, in particular number, measurement, graphing, data handling, interpolation and extrapolation and costing their own products. Children can develop their ICT skills by using ICT for capturing, organising and analysing data and presenting results; and for sequencing instructions to control events and products. Children learn to appreciate the potential ICT simulations have to provide access to things that cannot be experienced directly
- b. to extend their personal, emotional and social development, particularly by working collaboratively towards a common goal such as planning and carrying out investigations or developing products. Within the area of learning they share ideas, make compromises, negotiate and offer each other feedback in order to ensure a high-quality outcome
- c. to enhance their scientific and technological understanding through making links to other areas of learning and to wider issues of interest and importance, in particular developing understanding of sustainability by assessing the impact on the environment of choices in their designs. Children develop their understanding of how to stay healthy through learning how human body systems work and how microbes cause disease. They also explore the contribution of historically significant scientists and engineers.

Historical, geographical and social understanding

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the achievement of the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

This area of learning stimulates children's curiosity to investigate the world and their place within it. Engaging children in questions about people and events in the past helps them understand the present and prepare for the future. Understanding people's relationships with the physical and built environment helps them form ideas about how to live. They learn about the impact of their actions on the planet and understand the importance of developing a future that is sustainable. Through exploring cultures, beliefs, faiths, values, human rights and responsibilities, children develop a deeper understanding of themselves and others, and a sense of belonging.

Historical, geographical and social understanding encourages children to interpret the world around them, from the local to the global. They become aware of how communities are organised and shaped by people's values and actions, and how communities can live and work together. They begin to understand how events that happened long ago or in other countries can affect our lives today and how we can help shape the future.

In these ways, children learn about similarities, differences, diversity and how we live in an interdependent world. They learn about right and wrong, fairness and unfairness, justice and injustice. Their growing understanding helps them make sense of the world and prepares them to play an active role as informed, responsible citizens.

Explanatory text:

1. Essential knowledge

Children should build secure knowledge of the following:

- a. how the present has been shaped by the past, through developing a sense of chronology, exploring change and continuity over time, and understanding why things happened
- b. how and why places and environments develop, how they can be sustained and how they may change in the future
- c. how identities develop, what we have in common, what makes us different and how we organise ourselves and make decisions within communities
- d. how people, communities and places are connected and can be interdependent.

2. Key skills

These are the skills that children need to learn to make progress:

- a. undertake investigations and enquiries, using various methods, media and sources¹
- b. compare, interpret and analyse different types of evidence from a range of sources
- c. present and communicate findings in a range of ways and develop arguments and explanations using appropriate specialist vocabulary and techniques
- d. consider, respond to and debate alternative viewpoints² in order to take informed and responsible action.

Explanatory text:

1. This includes carrying out visits and fieldwork, using maps, films, and artefacts, and using digital information such as geographical information systems (GIS) and weather data, databases and the internet.
2. Including using ICT to consider viewpoints from people in remote locations.

3. Breadth of learning

- a. The range of learning should encompass local, national and global contexts. In these contexts, children should learn about the ways people, communities, places and environments have changed over time, and how they are interconnected.
- b. Through the study of people and communities, children should find out about the main political and social institutions that affect their lives. They should have opportunities to find out about issues and take action to improve things in their communities and make a positive contribution to society. They should engage with different representatives from the community³. Children should explore issues of justice, rights and responsibilities in their own contexts, as well as issues affecting the wider world.
- c. Children should use fieldwork, first-hand experience and secondary sources⁴ to find out about a range of places and environments, including their own locality, a contrasting area in the UK and a different locality in another country. Children should explore views and opinions about local and global issues including sustainability, climate change, poverty, resource use and recycling. They should develop and extend local and global links through communications and collaboration tools⁵.
- d. The study of the past should include aspects of local, British and world history. Children should have opportunities to study the past in outline and in depth, covering different societies and periods of history from ancient times to modern day. They should use dates and vocabulary concerned with the passing of time, placing events, people and changes within a broad chronological framework. Children should use a range of sources of information⁶ and visit historic buildings, museums, galleries and sites.

Explanatory text:

3. Including those in business, public and voluntary sectors.
4. Including maps, charts, globes, GIS and ICT, film, books and devices such as data logging.
5. Such as email, video conferencing and podcasting.
6. Such as documents, printed sources, pictures, photographs, artefacts, databases and ICT-based sources including using data handling software to collate and analyse data.

4. Curriculum progression

The overall breadth of learning should be used when planning curriculum progression. Children should be taught:

EARLY ⁷	MIDDLE	LATER
<p>E1. to find out about the key features of their own locality⁸, and how it has changed over time</p> <p>E2. to explore how people's ways of life, including their own, change with location and time⁹</p> <p>E3. about the links between their locality and other places in the UK and beyond¹⁰</p> <p>E4. to find out about the lives of significant people and events from the past and the present¹¹</p> <p>E5. to investigate issues, express views and take part in decision-making activities to improve their immediate environment or community¹²</p> <p>E6. to use the internet and other digital sources and simulations to find out about significant issues, events and people, and to explore remote and imaginary locations</p> <p>E7. the importance of rules and to recognise the difference between right and wrong and what is fair and unfair.</p> <p>Explanatory text: 7. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress. 8. Examples of physical features include rivers, hills etc; human features include roads, shops, buildings etc; community features include police, community leaders or mayor. 9. This includes changes to life at school, work, leisure and home. 10. This includes physical communication, trade and movement of people or ideas. 11. For example, people such as explorers, inventors, rulers, and events that are commemorated, other events that are significant to the children's own lives. 12. This involves working with others to explore issues of similarity and difference, right and wrong, fairness and rules, and making simple decisions within their group, class or school.</p>	<p>M1. how identities, communities, cultures and traditions have changed and are changing over time</p> <p>M2. to identify patterns in communities, places and past events by searching for and locating information using keywords, and carrying out searches and surveys¹³.</p> <p>M3. to understand how people can take actions and have a say in what happens locally and nationally¹⁴</p> <p>M4. to consider issues affecting communities, and reflect on the impact of people's actions on others and the environment¹⁵</p> <p>M5. to understand why laws are made and how they are applied justly¹⁶.</p> <p>Explanatory text: 13. Including using data handling software to collate and analyse data. 14. This includes learning simple features of democracy and how decisions can be made through elections and voting, campaigning, debate and raising awareness of issues including the use of ICT to extend the reach of such activities. 15. This includes learning about rights and needs humans have and how rules and laws can protect rights and the environment. 16. This includes issues about right and wrong, why we need laws, the consequences of crime and anti-social behaviour for communities and the role of the police in protecting people.</p>	<p>L1. how societies have been organised and governed in different ways and at different times²²</p> <p>L2. to distinguish between fact and opinion and make choices about sources of on-line information to find out about communities, locations and events</p> <p>L3. to investigate local and global issues by using ICT to analyse and process data²³.</p> <p>Citizenship</p> <p>L4. how rights need to be balanced to protect individuals and communities from injustice²⁴</p> <p>L5. to engage actively with democratic processes, and address issues of concern to them through their actions and decision making²⁵</p> <p>L6. that communities and the people within them are diverse, changing and interconnected</p> <p>L7. to consider how people can live and work together to benefit their communities.</p> <p>Explanatory text: 22. This includes how different societies in the past were ruled as well as key features of local and national government in the UK today. The study of the UK today could include what the local councillor or MP does to represent people and the role of the local council and parliament. Often this includes learning through practical participation, for example, in the student council. 23. Including census, weather and GIS data. 24. Examples of rights and responsibilities might include: at school, the right to learn and responsibility not to disrupt other children from learning; in the neighbourhood, the right to be safe, including from discrimination, and responsibility not to hurt others physically or emotionally. 25. Democratic and responsible actions could be within the class, school or wider community and might include taking part in a debate on an issue affecting the community, voting in a class or school election, raising awareness about issues of concern and trying to improve the environment for others.</p>

Geography

- M6. where significant places are located in the UK, Europe and the wider world¹⁷
- M7. to identify similarities and differences between places and environments, and understand how they are linked¹⁸
- M8. to appreciate the relationship between the physical, built and economic environments
- M9. how different ways in which people live around the world sometimes have consequences for the environment and the lives of others.
- L8. a range of factors that cause change in the physical and human world in different places²⁶
- L9. how human patterns and distributions are influenced by both human and physical geography
- L10. about the factors that affect weather and climate
- L11. ways in which environments can be managed sustainably and why this is important now and in the future.

History

- M10. to explore the different ways we can find out about the past and how to understand the evidence¹⁹
- M11. how significant events, developments or individuals and groups have influenced their locality, the UK and beyond²⁰ in the recent and distant past
- M12. about the movement and settlement of people in different periods of British history, and the impact these have had²¹.
- L12. the characteristic features of and changes within two key periods of history that were significant to the locality and the UK²⁷
- L13. the effects of economic, technological and scientific developments on the UK and the wider world over time²⁸
- L14. to understand the broad chronology of major events in the UK, and some key events in the wider world, from ancient civilisations to the present day, and to locate within this the periods, events and changes they have studied.

Explanatory text:

17. Significant places might include the countries and major cities that make up the UK, and the EU, other major countries and cities of the world, together with the major oceans, rivers and mountain ranges.
18. This includes a study of their own locality, a contrasting locality in the UK and a different locality in another country.
19. This includes primary and secondary sources, artefacts documents, photographs, film, accounts – not all sources of evidence are as reliable as others and the past has been represented and interpreted in different ways, including on-line sources.
20. For example, the building of castles, the plague, industrialisation, or the work of a well-known local person and their effect on the local area and beyond.
21. For example, the impact of the invasion and settlement of the Romans, Anglo-Saxons, Vikings, Normans or more recent immigration.

Explanatory text:

26. Including erosion and deposition and patterns of climate.
27. As well as British history, one of the periods studied could be taken from European or world history.
28. For example, the impact of changes in transport and technology in the last 200 years; the development and impact of roads, canals and railways in the eighteenth and nineteenth centuries; car manufacture and developments in aviation in the twentieth centuries; the impact of changes in transport on the local area.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply skills of literacy, numeracy and ICT, particularly through reading and analysing historical documents, using maps, charts and measurements in fieldwork, and interrogating databases of information about people and services
- b. to extend their personal, emotional and social development, particularly by learning to work collaboratively with others in community activities to improve the environment and to carry out first-hand investigations in their locality
- c. to enhance their historical, geographical and social understanding through making links to other areas of learning and to wider issues of interest and importance, particularly through linking studies of sustainability to the impact of choices in economic wellbeing, linking studies of the material impact of geographical process such as erosion to the study of forces and materials in science, and linking studies of laws and justice to notions of rights and fairness in personal wellbeing.

Understanding physical development, health and wellbeing

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

To enjoy healthy, active and fulfilling lives, children must learn to respond positively to challenges, to recognise and manage risk and to develop their self-confidence and physical capabilities. Such learning lays the foundations for long-term wellbeing and contributes to children's mental, social, emotional¹, economic² and physical³ development.

They learn about their changing bodies and the importance of nutrition and rest, helping them make informed choices and lead healthy, balanced lifestyles. Through enjoyable physical activities, they learn to increase body control, coordination and dexterity.

Children learn about their responsibilities both as individuals and members of groups and about what is right and wrong. They learn to compete fairly and to cooperate as individuals and in groups and teams, understanding their own and others' roles.

As their confidence grows, they become more enterprising and financially capable, finding new ways of doing things and developing a positive attitude to seeking solutions. Children develop a growing self-awareness and a commitment to self-improvement so they can make informed decisions that lead to happier and healthier lives. They raise their aspirations, set goals and work to achieve them, seeing how this will influence opportunities in education, leisure, the world of work and their quality of life.

Explanatory text:

1. Together with the personal, social and emotional aspects of the Essential Skills for Learning and Life, this area of learning contributes to the personal development framework. Social and emotional aspects of learning (SEAL) are also included in this area of learning.
2. Aspects of economic and business understanding are also included in *Historical, geographical and social understanding*.
3. The physical activities in this area of learning contribute to the five-hour offer per week of physical activity. This should include at least two hours of high quality physical education.

1. Essential knowledge

Children should build secure knowledge of the following:

- a. healthy living depends upon a balance of physical activity, nutrition, leisure, work and rest to promote wellbeing⁴
- b. physical competence and performance can be improved through practice, control and dexterity as well as creative thinking and commitment
- c. good interpersonal relationships promote personal wellbeing and are sustained through a positive sense of personal identity and respect for similarities and differences
- d. personal wellbeing depends upon high aspirations and the development of financial and enterprise capability
- e. challenge and risk can be managed through well-informed choices that lead to safe, full and active lives.

2. Key skills

These are the skills that children need to learn to make progress:

- a. reflect on and evaluate evidence when making personal choices or bringing about improvements in performance and behaviour
- b. generate and implement ideas, plans and strategies, exploring alternatives
- c. move with ease, poise, stability and control in a range of physical contexts
- d. find information and check its accuracy including the different ways that issues are presented by different viewpoints and media
- e. communicate clearly and interact with a range of audiences to express views on issues that affect their wellbeing.

Explanatory text:

4. Personal wellbeing includes physical, mental, intellectual, social, emotional and economic aspects.

3. Breadth of learning

- a. Children should be taught knowledge, skills and understanding they need to help them achieve physical, mental, intellectual, social, emotional and economic wellbeing.
- b. Children should learn about the importance of healthy lifestyles. They should participate in a range of activities that promote physical skilfulness and development through indoor and outdoor activities including creative play. They should take part in physical activities that involve competing with and outwitting opponents⁵, accurate replication of actions⁶, optimum performance⁷ and creative problem solving⁸. Children should be able to swim a minimum distance of 25m⁹ and refine skills within aerobic activities and ball games¹⁰. As a result of taking part in activities, they should be able to identify what types of physical activities they enjoy and find out how to get involved. They should learn about the importance of healthy lifestyles and have opportunities to prepare and cook simple balanced meals. They learn how nutrition, exercise and hygiene contribute to their wellbeing.
- c. Children should learn about the physical and emotional changes that take place as they grow. They learn about relationships and sex within the context of caring and stable relationships¹¹. They should learn how to make decisions that promote and sustain better physical, mental and emotional health. They should learn how to manage their emotions and develop and sustain relationships, recognising diversity and respecting themselves and others. Through a range of activities and experiences; children should have opportunities to collaborate and to compete individually, in pairs, groups and teams. Through these activities, they learn about their capabilities, their limitations and their potential.
- d. Children develop a growing awareness of the adult world recognising that there is a range of work that people do and a variety of ways that people contribute to society. They should learn how education and training can improve their opportunities in later life¹². To raise their aspirations, children should have opportunities to meet people from a range of occupations as well as attend events outside of school¹³. They should learn about where money comes from, its uses and how to manage it¹⁴. They should have opportunities to develop and use enterprise skills.
- e. Children should learn how to solve problems, to embrace and overcome challenges and deal with change. They should learn about staying safe and how to identify and manage risks relating to issues including harmful relationships, drugs and alcohol, and how and where to get help.

Explanatory text:

5. This includes competing and collaborating in activities and games.
6. This includes gymnastics and dance activities. Dance is also included in *Understanding the arts*.
7. This includes athletics and competitive games including swimming.
8. This includes adventurous activities such as expeditions, camping and personal survival.
9. All pupils should learn to float and move safely in water and to swim unaided or unsupported on their front and on their back. They should learn to swim unaided and how to survive in water.
10. Children should have opportunities to develop coordination through activities such as hitting, striking, catching, throwing, running, jumping, skipping and hopping.
11. This includes making judgements about the appropriateness of sex and relationships education in relation to the age and maturity of learners.
12. Children should be encouraged to learn about the pathways they might take in their future education through secondary, further and higher education.
13. This could include meeting sports people, exercise and nutrition experts, chefs, medical and business professionals and attending sports and dance events, different places of work and participating in residential visits.
14. Aspects of financial education are also included in *Mathematical understanding*.

4. Curriculum progression

Curriculum progression should be considered alongside the overall breadth of learning. Children should be taught:

EARLY ¹⁵	MIDDLE	LATER
<p>E1. to work and play independently and in groups</p> <p>E2. to listen to and show consideration for other people's views</p> <p>E3. to identify and talk about their own and others' strengths and how to improve</p> <p>E4. how to keep safe and know how and where to get help¹⁶</p> <p>E5. to use strategies to stay safe when using ICT and the internet</p> <p>E6. to recognise right and wrong, what is fair and unfair and explain why</p> <p>E7. to recognise how attitude and behaviour, including bullying, may affect others¹⁷.</p> <p>Explanatory text: 15. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress. 16. This includes knowing how to stay safe in physical activities and in different social settings and other aspects of staying safe at the home, in water and road safety. 17. This includes what bullying is, that it is wrong and how to challenge it.</p>	<p>Across the area of learning</p> <p>M1. to work independently and in groups, taking on different roles and collaborating towards common goals</p> <p>M2. to listen to, reflect on and respect other people's views and feelings</p> <p>M3. to recognise and respect similarities and differences between people</p> <p>M4. to recognise their own and others' strengths and weaknesses and how to improve</p> <p>M5. to recognise and respond to issues of safety relating to themselves and others and how to get help²⁴</p> <p>M6. to use ICT safely including keeping their electronic data secure²⁵</p> <p>M7. to recognise and manage risk in their everyday activities</p> <p>M8. to recognise how attitude, behaviour and peer pressure can influence choice and behaviour, including dealing with bullying²⁶.</p> <p>Explanatory text: 24. This includes risk in the home, road safety, water, electricity and personal safety relating to relationships with adults. 25. This includes not disclosing personal information while online and not disclosing passwords. 26. This includes both positive and negative influences and learning about how to deal with different types of bullying (physical, verbal, mobile phones, online), how to recognise it, how to seek help and how and to develop strategies for coping with it.</p>	<p>L1. to take the lead, prioritise actions and work independently and collaboratively towards goals</p> <p>L2. to listen to, reflect on and respect other people's views and feelings while negotiating and presenting their own views</p> <p>L3. to recognise and challenge stereotyping and discrimination³⁵</p> <p>L4. to self-assess, set goals, prioritise and manage time and resources, understanding how this will help their future actions</p> <p>L5. to recognise their strengths and how they can contribute to different groups</p> <p>L6. to take responsibility for their own safety and the safety of others and where to seek help in an emergency³⁶</p> <p>L7. to use ICT safely including using software features and settings³⁷</p> <p>L8. how to respond to challenges, including recognising, taking and managing risks</p> <p>L9. about the factors influencing opinion and choice including the media³⁸</p> <p>L10. to recognise how their behaviour and the behaviour of others may influence people both positively and negatively³⁹.</p> <p>Explanatory text: 35. This includes cultural, ethnic and religious diversity, gender and disability. 36. Children should know about some basic aspects of first aid. 37. This includes altering security settings on social network sites and knowing how to respond to chat/video requests from unknown people. 38. This includes increasing children's awareness of consumerism and how advertising and access to the internet can influence choice and behaviour. 39. Includes both positive and negative influences and learning about how to deal with different types of bullying (physical, verbal, in and out of school, via internet and mobile phones), how to recognise it, how to seek help and how to develop strategies for coping with bullying.</p>

Physical education

- E8. to develop control and coordination of their physical movements
- E9. to recognise, observe and apply rules in competitive and cooperative games and other physical activities and why they are important
- E10. to devise and use repeat compositions and sequences in physical activities¹⁸
- E11. to use and apply simple tactics and strategies
- E12. to improve performance by observation and use criteria for evaluation
- E13. about the benefits of regular exercise and how their bodies feel when they exercise.

- M9. to control and coordinate their bodies and movements with increasing skill and confidence
- M10. to follow and apply more complex rules in a range of competitive and cooperative games and physical activities
- M11. to develop physical skills and techniques through observation, evaluation and refinement; and to use repetition and practice to reach higher standards²⁷
- M12. to use tactics, strategies and compositional ideas to achieve set objectives and improve performance
- M13. to recognise ways in which stamina and flexibility can be improved through daily physical activity.

- L11. to perform physical movements and complex series of movements with increasing control, coordination, precision and consistency
- L12. to create and apply rules and use more complex compositions, tactics and strategies in competitive and cooperative games and other physical activities
- L13. to develop and perform sequences and compositions using appropriate movements to express ideas and emotions
- L14. to refine physical skills and techniques commenting on strengths and weaknesses in their own and others' performance
- L15. to recognise the benefits of practice and reflection for improving personal and group performance⁴⁰
- L16. to understand the particular benefits of different physical activities for promoting health.

Explanatory text:

18. This includes activities in which they perform skills, phrases and sequences as accurately as possible, such as dance and gymnastics.

Explanatory text:

27. This includes activities in which they need to perform skills, phrases and sequences as accurately as possible such as gymnastics, dance or Tai chi.

Explanatory text:

40. This includes use of ICT to monitor, record and review performance.

Personal wellbeing

- E14. why healthy eating and physical activity are beneficial
- E15. to make healthy eating choices and prepare simple healthy foods
- E16. that some substances can help or harm the body¹⁹
- E17. about the simple physical changes to their bodies they have experienced since birth and the similarities and differences between people²⁰
- E18. to manage personal hygiene
- E19. to identify different relationships that they have and why these are important²¹
- E20. how to recognise, manage and control strong feelings and emotions.

Explanatory text:

19. This includes safe storage of household substances
20. This includes simple physical changes; growth, hair, height and the differences between boys and girls.
21. This includes starting with close family, carers, friends and widening their recognition to people less known to them including personal safety relating to relationships with adults. This also includes learning about changing relationships, about marriage, separation and loss.

- M14. about the relationship and balance between physical activity and nutrition²⁸ in achieving a physically and mentally healthy lifestyle
- M15. to plan and help prepare simple healthy meals
- M16. about the impact of some harmful and beneficial substances on their body²⁹
- M17. about the physical and emotional changes that take place as they grow and approach puberty³⁰
- M18. how to form and maintain relationships with a range of different people³¹
- M19. strategies for managing and controlling strong feelings and emotions.

Explanatory text:

28. This includes achieving healthy weight by balancing exercise and nutrition.
29. This includes the effects of medicines, tobacco, alcohol and other drugs on their bodies.
30. This includes the changes to their bodies; emotions, feelings and attitudes and naming main external parts of the body.
31. This includes valuing relationships within their families and carers and with people different from themselves. This also includes changing relationships, marriage, civil partnerships, separation, loss and bereavement.

- L17. to take responsibility for their physical activity and nutrition in achieving a physically and mentally healthy lifestyle⁴¹
- L18. to plan, prepare and cook simple healthy meals
- L19. how to make responsible, informed decisions relating to medicines, alcohol, tobacco and other substances and drugs⁴²
- L20. about the physical changes that take place in the human body as they grow and how these relate to human reproduction
- L21. how to manage changing emotions and relationships and how new relationships may develop⁴³
- L22. that hygiene, physical activity and nutrition needs might change as a result of growth and adolescence
- L23. strategies for understanding, managing and controlling strong feelings and emotions and dealing with negative pressures.

Explanatory text:

41. This includes developing understanding of what constitutes physical and mental health and things that may threaten both.
42. This includes awareness of misuse of volatile substances including aerosols, glue and petrol.
43. This includes learning about changing relationships within their family and friendship groups including marriage, civil partnerships, separation, loss and bereavement.

Economic wellbeing

- E21. about the different types of work people do and about different places of work²²
- E22. about where money comes from and the choices people make to spend money on things they need and want
- E23. ways to contribute to enterprise activities²³.

Explanatory text:

22. This should help to broaden children's views of the adult world and the world of work.
23. This includes generating ideas, solving problems with more than one solution and collaborating towards a common goal.

- M20. why people work and the different jobs people do³²
- M21. what influences the choices people make about how money is spent³³
- M22. how they can contribute to a range of activities that help them to become more enterprising³⁴.

Explanatory text:

32. This should further develop children's views of the world of work and career pathways.
33. This could include knowing about organisations that promote ethical spending, about peer, media and other influences that help them become critical consumers.
34. This includes developing the thinking skills, attitudes and dispositions to be enterprising such as adaptability, perseverance and creative problem-solving.

- L24. about the connections between their learning, the world of work and their future economic wellbeing⁴⁴
- L25. about how people manage money and about basic financial capability⁴⁵
- L26. to show initiative and take responsibility for activities that develop enterprise capability⁴⁶.

Explanatory text:

44. This should help children to make the link between their learning at school and learning in other settings.
45. This will help children develop a basic understanding of the difference between cost, price and the notion of profit.
46. This includes further developing enterprise capability such as organising and hosting events and performances, designing outdoor trails and making and selling products.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply the skills of literacy, numeracy and ICT particularly through expressing themselves clearly, considering important contemporary issues that affect their wellbeing; the use and application of a range of mathematical skills including number, measurement, shape and space, graphing and data handling in activities; the application of digital, video and photographic technology to make improvements in skills, actions, sequences and performances; how the safe and responsible use of technology supports the development of challenge and managing risk
- b. to develop their personal, emotional and social development through making informed choices and decisions at school, their lives at home and within the wider community
- c. to make links to other areas of learning and to wider issues of interest and importance, particularly through exploring ethical and moral issues relating to real life choices and decisions; about changes to their bodies during physical activities; preventing disease through good hygiene practices; connecting expressive movements within dance with stamina, poise and physical capability; applying what they have learnt about money and calculations to personal spending and enterprise activities.

Understanding the arts

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?

The arts provide a wealth of vital experience to excite children's imaginations and develop their creativity. This area of learning encourages them to participate actively, to try out different possibilities, and to make and communicate meaning to different audiences through a variety of media and contexts.

This area of learning includes art and design¹, dance, drama and music and teaches children how to use the arts to express their thoughts and emotions and empathise with others. Through the arts they develop original ideas, explore issues and solve problems².

Participating in a range of art forms helps children become creative, responsive, critical and appreciative. They discover the value of focus, discipline and practice and the importance of working collaboratively. Working as artists³ themselves and responding to the work of other artists helps them to develop an appreciation of aesthetics, and enables insights into different viewpoints, identities and cultures.

Children's understanding of the arts is a source of inspiration, enjoyment and fulfilment. It also enhances their personal, social and emotional development. It enables them to participate in and respond to the creative and cultural life of their communities and different cultures and traditions.

Explanatory text:

1. Art and design includes art, craft and design.
2. This includes the use of new and developing forms and conventions associated with computer graphics, digital photography, animation and film.
3. "Artists" refers to people engaged in any branch of the arts.

1. Essential knowledge

Children should build secure knowledge of the following:

- a. how creative ideas can be developed in response to different stimuli and imaginative thinking
- b. how different art forms communicate and evoke moods, thoughts and ideas
- c. that designing, creating and performing require discipline, control, technique and practice
- d. how and why people from different times and cultures have used the arts to express ideas and communicate meaning
- e. that accepted forms and conventions can give structure and purpose to artistic works but can be adapted and changed.

2. Key skills

These are the skills that children need to learn to make progress:

- a. explore, investigate and experiment roles, techniques, approaches, materials and media, from a range of stimuli and starting points⁴
- b. create, design, devise, compose and choreograph their individual and collective work
- c. improvise, rehearse and refine in order to improve their capability and the quality of their artworks
- d. present, display and perform for a range of audiences, to develop and communicate their ideas and evoke responses
- e. use arts-specific vocabulary to respond to, evaluate, explain, analyse, question and critique their own and other people's artistic works.

3. Breadth of learning

- a. Children should learn about how the arts are created and enjoyed today⁵, how they have changed over time, and the contribution they make to our lives and culture. How the arts are used and valued in different cultures and traditions should also be explored. Children should learn how to combine art forms imaginatively and in complementary and enhancing ways. They should perform and exhibit for a range of audiences, and work with artists in and beyond the classroom. They should be introduced to the appropriate language of the arts.

Explanatory text:

4. Media and techniques include the use of ICT in making images, photographs, films, computer composition and performance, and the associated software skills.
5. Including how ICT is used as a art medium in itself and how it can be used for graphics, animations, videos and sound sequences etc.

- b. In art children should be involved in design, craftwork and fine art on a variety of scales, working in two and three dimensions and using ICT⁶ to explore line, shape, form, colour, texture and pattern. They should develop their understanding through visits to galleries and exhibitions.
- c. In dance⁷, children should create, perform and appreciate dances. They should develop physical skills and the ability to use space imaginatively and creatively and work with others to perform confidently and with expression. They should learn about and experience dance styles from different times, places and cultural contexts and see and participate in live performances.
- d. In drama, children should improvise and work in role plays with other children and with adults, responding to a variety of imagined and real stimuli. They should explore dramatic conventions⁸, areas of personal interest and enjoyment as well as issues of personal, social and global concern. They should devise performances for each other, the school and the wider community, and respond to live and recorded professional theatre performances.
- e. In music, children should learn about and appraise a range of music of different genres and from different cultures including classical, folk and popular traditions. They should work with a range of musicians and watch, listen to and participate in live performances. They should learn to sing rounds and songs, and should play musical instruments to perform melodies and accompaniments by ear and from notations. They should create and compose music by choosing, ordering, combining and controlling sounds and recognising how musical elements⁹ can be used.

Explanatory text:

6. These activities should include drawing, painting, sculpting and modelling, printing, and using textiles, film and photography, graphics, and video and photo-editing software.
7. Dance is also included in the area of learning *Understanding physical development, health and well-being*.
8. For example, improvisation, mime, hot-seating, tableau, freeze-frame, thought-tracking, conscience alley, role on the wall, collective role, teacher in role, forum theatre, image theatre, performance carousel, eavesdropping, voice collage, narration.
9. Musical elements include pitch, duration, tempo, timbre, texture and silence.

4. Curriculum progression

The overall breadth of learning should be used when planning curriculum progression. Children should be taught:



Across the area of learning

- E1. to explore a wide range of media and materials to create artworks, improvise and depict imagined worlds, and model the real world through the arts
- E2. to try out a range of tools and techniques with a range of materials for artistic purposes¹¹
- E3. to explore movement skills and create movement patterns in response to stimuli¹²
- E4. to use role-play to engage and empathise with characters, situations and events from known stories and stories they create together
- E5. to sing songs and play musical instruments with expression and control¹³, listening and observing carefully¹⁴
- E6. to listen and observe carefully, taking account of simple instructions¹⁴
- E7. to experiment with designs, shapes, colours and sounds¹⁵, using ICT where appropriate
- E8. to choose and record images and sounds using ICT.

Explanatory text:

10. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress.
11. This includes making images and artefacts using appropriate tools (e.g. brushes, sponges, crayons, rollers etc) and using materials including paper, card, textiles, clay, wire etc., and using ICT as a medium in itself and to explore other art forms. This includes 2D, 3D and technologies such as computer art and graphics, animations, electronic compositions, videos and so on.
12. Including whole body actions that vary speed, strength, shape, size and direction of travel.
13. This includes identifying and controlling how sounds can be made and changed, for example using the voice confidently and with expression in a variety of ways, and playing tuned and untuned instruments.
14. This includes copying, mime, and musical sound: repeating musical patterns, using call and response, making changes to musical elements, and being aware of how each person contributes to the whole.
15. Through editing and formatting techniques, for example, changing the size, order, shape, speed of digital information such as photos, sound sequences and graphics.

- M1. to use their senses and the world around them to stimulate and develop imaginative ideas that inform their creative work individually and working with others
- M2. to explore how the arts can evoke and express feelings and ideas, and how this can be enhanced through combining the arts
- M3. to explore alternative approaches to develop and refine performances and communications using ICT where appropriate
- M4. to create and present work in a variety of digital forms¹⁶
- M5. about the role of the arts¹⁷ in their life, their locality and wider society.

Explanatory text:

16. Including computer graphics, presentations, animations, sound sequences, videos etc.
17. This includes public art galleries, libraries, museums, theatres, concerts, the built environment or objects they buy and use.

- L1. to work individually and with others to use each art form by itself and in combination to create and to perform for different audiences about the diverse roles of the arts within the cultures of their locality and the wider world
- L2. to select and use appropriate ICT tools and techniques to develop and refine their ideas across the arts.

Art and design

- M6. to explore a range of techniques, materials, processes and media, including digital media, to draw, sculpt, model, design, paint and print
- M7. to design and create images and artefacts in response to their personal ideas and for clearly defined purposes
- M8. to refine their use of techniques, materials and media.
- L4. to investigate, explore and record²⁸ information, to appreciate aesthetic qualities and generate imaginative ideas
- L5. to design and create images and artefacts in response to their personal ideas and for clearly defined purposes
- L6. to select, develop and refine techniques and the use of materials and media to represent their ideas and express themselves.

Dance

- M9. to explore a range of actions, movements, space and relationships, and how to create dance motifs¹⁸ and compose simple dances
- M10. to learn, practice, refine and perform dance phrases with physical control, expression, rhythmic timing, musicality¹⁹ and an awareness of other performers
- M11. to describe and interpret their own work and the work of others.
- L7. to draw upon different dance styles to compose dances and communicate meaning
- L8. to develop and refine their movement repertoire and show understanding of artistic meanings and intentions when they dance
- L9. to analyse, compare and evaluate dances and aesthetic qualities²⁹ using appropriate dance vocabulary.

Explanatory text:

18. A simple motif is several movements linked together smoothly to create a sequence (or phrase) that symbolises or communicates an idea or feeling.

19. This includes performing with a sense of rhythm, flow, emphasis and, where appropriate, with an awareness of music or other sounds.

Explanatory text:

28. This includes using sketch books, journals, photographs, mood boards, ICT, video.

29. For example, the sensory and expressive qualities of dance phrases and how these convey feelings, ideas and meaning.

Drama

- M12. to adopt, sustain and develop a range of roles for different purposes²⁰
- M13. to use and develop a range of dramatic conventions²¹
- M14. to create and perform in order to make and convey meaning.

- L10. to create roles and devise performances that sustain characters, plots and intentions
- L11. how facial expressions, body language, movement and space can communicate different emotions and characteristics of behaviour
- L12. to select and experiment with a broad range of drama conventions and forms for different purposes³⁰ and effects.

Music

- M15. to listen carefully, recognise and use repeated patterns and increase aural memory
- M16. to perform²² with control and awareness²³ of audience and what others are playing or singing
- M17. to recognise different musical elements²⁴ and how they can be used together to compose music²⁵
- M18. how to compose and perform²⁶ simple melodies and accompaniments²⁷
- M19. to recall, plan and explore sounds using symbols and ICT.

- L13. to listen carefully, developing and demonstrating musical understanding and increasing aural memory
- L14. to perform by ear and use notations and ICT to support creative work
- L15. to compose their own instrumental and vocal music and perform their own and others' compositions³¹ in ways that reflect their meaning and intentions³²
- L16. to describe and compare different kinds of music using appropriate musical vocabulary.

Explanatory text:

20. Purposes include exploring real and imaginary situations, feelings and issues of human significance.
21. Conventions at this stage might include freeze frame, hot seating and tableau.
22. This includes use of the voice, use of musical instruments and improvisation.
23. This includes maintaining a simple part within an ensemble, working with several layers of sound and having an awareness of the combined effect of that sound, as well as recognising the importance of articulating words to communicate meaning to an audience.
24. Musical elements include rhythm, pitch, tempo, timbre and dynamics.
25. This includes choosing, ordering, combining and controlling sounds with awareness of their combined effect and sometimes combining sounds with movement and narrative.
26. Opportunities should be made available for children to learn to play a musical instrument.
27. This includes rhythmic or tuned accompaniment to a main melody.

Explanatory text:

30. For example, to explore issues of human significance.
31. Including recognising and making creative use of the way sounds can be changed, organised, controlled and layered to develop melodic and rhythmic phrases for effect including rhythmic or tuned accompaniments to a main melody.
32. This includes singing and playing with increasing technical control, accuracy of pitch, expression and awareness of breathing, diction, dynamics and phrasing as well as communicating effectively with each other and their audience to achieve an overall effect.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply skills of literacy, numeracy and ICT, particularly through speaking and listening in drama, mathematical ordering and patterns in music and design, and using ICT to try out ideas, create, refine and present work across the arts
- b. to extend their personal, emotional and social development, particularly through exploring feelings and emotions in drama, developing physical poise through dance, working cooperatively with others in music, and giving constructive feedback and support across the arts
- c. to enhance their understanding of the arts through links to other areas of learning and to wider issues of interest and importance, particularly in exploring the past through paintings and drama, finding out about other cultures through their music and drama, and learning about different communities from the way the arts are organised and used.

Religious Education

Non-statutory programme of learning for a statutory subject¹

Learning in this area should include an appropriate balance of focused subject teaching and well-planned opportunities to use, apply and develop knowledge and skills across the whole curriculum.

Curriculum aims

This area of learning contributes to the curriculum aims for all young people to become:

- successful learners who enjoy learning, make progress and achieve
- confident individuals who are able to live safe, healthy and fulfilling lives
- responsible citizens who make a positive contribution to society.

Why is this area of learning important?²

Religious education provokes challenging questions about the ultimate meaning and purpose of life, beliefs about God, the self and the nature of reality, issues of right and wrong and what it means to be human. It develops children's knowledge and understanding of religions and beliefs³, including Christianity, other principal religions, other religious traditions and other world views.

RE offers opportunities for personal reflection and spiritual development. It enables children to flourish individually, within their communities and as citizens in a diverse society and global community. RE has an important role in preparing children for adult life, employment and lifelong learning. It enables them to develop respect for and sensitivity to others, promotes discernment and enables children to combat prejudice. In these ways it contributes to children's wellbeing and promotes ways in which communities can live and work together.

Explanatory text:

1. Religious Education is a statutory subject in the curriculum of all maintained schools, and they are legally obliged to provide it. This programme of learning is based on the non-statutory national framework for RE (DfES and QCA, 2004). RE must be taught according to the locally agreed syllabuses (for community schools, voluntary schools and foundation schools without a religious character). Voluntary controlled and foundation schools with a religious character should normally teach the locally agreed syllabus unless parents request that RE is taught in accordance with the trust deeds and faith of the school. Voluntary aided schools with a religious character should teach RE in accordance with the trust deeds and faith of the school. Academies and Trust schools should provide RE in accordance with their funding agreement or trust deeds.

In order to promote national consistency and quality in RE, in the context of a coherent curriculum, this programme of learning is intended to be used by local agreed syllabus conferences and faith communities to determine what children should be taught in RE.

2. This statement is based on the 'Importance of RE' statement found in the non-statutory national framework for RE (2004) and the secondary RE programmes of study.
3. The phrase 'religions and beliefs' should be taken to include religious and secular world views, and their associated practices.

1. Essential knowledge

Children should build secure knowledge of the following⁴:

- a. beliefs, teachings and sources
- b. practices and ways of life
- c. forms of expressing meaning⁵
- d. identity, diversity and belonging
- e. meaning, purpose and truth
- f. values and commitments.

2. Key skills⁶

These are the skills that children need to learn to make progress:

- a. identify questions and define enquiries, using a range of methods, media and sources
- b. carry out and develop enquiries by gathering, comparing, interpreting and analysing a range of information, ideas and viewpoints
- c. present findings, suggest interpretations, express ideas and feelings and develop arguments
- d. use empathy, critical thought and reflection to evaluate their learning and how it might apply to their own and others' lives.

3. Breadth of learning

Children should be enabled to develop their understanding of the essential knowledge and key ideas by drawing on an appropriate balance of religions and beliefs as contexts for learning. The religions and beliefs drawn on should include Christianity in each of the early, middle and later phases⁷. At least two other principal religions should be included during primary education as a whole⁸. To ensure that all children's voices are heard, it is recommended that there are opportunities to study other religious traditions such as the Baha'i faith, Jainism, and Zoroastrianism, and secular world views, such as humanism⁹. A religious community with a significant local presence¹⁰ could also form a context for learning. Understanding of key ideas can also be promoted through themed studies, experiences of dialogue between and within beliefs, and visits or encounters with people of a variety of religions and beliefs. Children should learn to use appropriate specialist vocabulary.

Explanatory text:

4. Understanding these concepts is the basis of effective learning in RE.
5. People can express a sense of meaning through their big questions about life (e.g. where do I come from?), through their commitment to standards of behaviour (e.g. 'do not steal') through their beliefs and practices (e.g. the practice of prayer, meditation, religious dancing or singing).
6. Key skills run through all areas of learning and are derived from the personal development framework 'Essentials for Learning and Life'.
7. Where possible, this should include Orthodox, Catholic, Anglican, Free Church (e.g. Methodist or Baptist) and Pentecostal branches of Christianity across the whole primary phase.
8. This should include at least one from Judaism and Islam, and at least one from Hinduism, Buddhism and Sikhism, across the whole primary phase.
9. Over the primary phase as a whole, children should draw on both religious and non-religious world views.
10. This could include, for example, the traditional religions of Africa or China.

4. Curriculum progression

The overall breadth of learning should be used when planning curriculum progression. Children should be taught:



Across the area of learning

- E1. to explore a range of religious and moral stories and sacred writings, and talk about their meanings
- E2. to name and explore a range of celebrations, worship and rituals in religions or beliefs, recognising the difference they make to individuals, families and local community¹²
- E3. to identify and suggest meanings for religious symbols, using a range of religious and moral words and exploring how they express meaning¹³
- E4. to recognise the importance for some people of belonging to a religion or holding special beliefs, in diverse ways, and the difference this makes to their lives
- E5. to communicate their ideas about what matters most, and what puzzles them most, in relation to spiritual feelings and concepts¹⁴
- E6. to reflect on how spiritual qualities and moral values relate to their own behaviour¹⁵.

Explanatory text:

- 11. Each area of learning should build on children's experiences and development in the Early Years Foundation Stage to ensure continuity of curriculum provision and their continuing progress.
- 12. Celebrations refer to annual festivals such as Christmas, Easter, Pesach, Id-ul-Fitr or Diwali. Worship usually refers to daily or weekly ceremonies at home or in a sacred building. Rituals can be rites of passage, e.g. those marking birth or growing up; rituals can also be used in the context of worship, e.g. wudu at the start of daily prayers in Islam. Similarities and differences and the impact on daily life can be noted, e.g. believing in God's compassion may lead people to help others.
- 13. The expression of a sense of meaning could be explored and responded to through the arts, e.g. in appreciation of religious art or music or learning about the position of hands/posture in prayer or meditation.
- 14. This could include naming and thinking about experiences such as love, wonder, thankfulness, joy and sadness, or questions such as why we care for people or for things.
- 15. This could include thinking about: spiritual qualities such as reverence or openness, and moral qualities such as forgiveness of people who hurt us.

- M1. to explore and discuss some religious and moral stories, sacred writings and sources, placing them in the context of the belief system¹⁶
- M2. to investigate and suggest meanings for celebrations, worship and rituals, thinking about similarities and differences¹⁷
- M3. to describe and interpret how symbols and actions are used to express beliefs¹⁸
- M4. to recognise that people can have different identities, beliefs and practices, and different ways of belonging
- M5. to investigate questions of meaning and purpose in life, speculating about questions and opinions¹⁹
- M6. to investigate questions of right and wrong in life, thinking about questions and opinions²⁰.

Explanatory text:

- 16. Stories and their meanings should be understood as part of the sources of a belief system.
- 17. Thinking about similarities and differences could mean wondering about differences between birth and naming rituals across religions, or about similarities between religious services with different names, such as Mass, Eucharist, Communion and the Lord's Supper. This should include investigation of the importance of these practices and ways of life to believers.
- 18. Beliefs and ideas can be expressed in many different forms, including art, music, dress, dance, food, artefacts, behaviour codes and social action.
- 19. Questions of meaning and purpose could include wondering about where life comes from, what people hold to be most precious or significant in life, or what happens when people or animals die, and discovering beliefs about these questions.
- 20. Questions of right and wrong should include learning about the values arising from religions and beliefs.

- L1. to describe and discuss some key aspects of religions and beliefs²¹
- L2. to investigate the significance and impact of religion and belief in some local, national and global communities²²
- L3. to consider the meaning of a range of forms of religious expression²³, identifying why they are important in religion and noting links between them
- L4. to reflect on the challenges of belonging and commitment both in their own lives and within traditions, recognising how commitment to a religion or belief is shown in a variety of ways
- L5. to describe and begin to understand religious and other responses to ultimate and ethical questions²⁴
- L6. to reflect on ideas of right and wrong and their own and others' responses to them.

Explanatory text:

- 21. Children could describe and discuss the key aspects, including the questions that beliefs ask and answer, their key teachings and sources of authority, and the people, stories and traditions that influence the beliefs and values of followers.
- 22. This could include, for example, how giving to charity might be based on a deep sense of the unity of humankind, or on a commitment to follow a divine commandment.
- 23. Forms of expressing meaning could include, for example, Indian dance, Arab calligraphy or Sikh seva (service).
- 24. Beginning to understand responses to ultimate questions could include discussing and sharing beliefs on issues such as the meaning and value of human life, the existence of God, the causes of suffering or whether there is life after death. There are many such questions that are answered differently by most religious and philosophical traditions. Understanding responses to such questions means recognising that they have no certain answers agreed by all. Children should be encouraged to ask and think about their own and each other's questions, their sources of inspiration and views about truth, as well as exploring the responses of individuals and communities.

5. Cross-curricular studies

Children should have opportunities:

- a. to develop and apply skills of literacy, numeracy and ICT, particularly through representing questions, information and views through a variety of spoken, written, statistical and technological media, and using databases and discussion to generate information and ideas
- b. to extend their personal, emotional and social development, particularly through sharing ideas, discussing beliefs and reflecting on challenging questions that develop positive attitudes and dispositions, such as self-awareness, respect for all, open-mindedness, appreciation and wonder. In doing this, children improve their enjoyment of learning, performance and confidence
- c. To make links to other areas of learning and to wider issues of interest and importance, particularly through reflecting on stories and their meanings, thinking about scientific and religious explanations, investigating ethical and religious aspects of the past, of our impact on the environment and the way society is organised. Children can enjoy exploring how beliefs and practices are expressed through language and artistic forms. They can learn to value their own wellbeing and development through reflecting on inspiring experiences and feelings.

Annex C: Sources of evidence for the Independent Review of the Primary Curriculum

This review draws upon a wide range of information from the following sources:

- an initial call for evidence resulting in over 550 responses;
- the views of more than 5,000 primary-aged pupils;
- an online survey of nearly 1,000 parents to ascertain their views of the current primary curriculum;
- visits by the review team to 57 nursery, primary and secondary schools;
- oral accounts of effective practice from contributors with acknowledged expertise and an interest in one or more aspects of the remit;
- a wide range of national and international evidence papers prepared by the QCA, including evidence obtained from nine regional conferences with nearly 2,000 headteachers and local authority advisers; and
- over 290 responses to the interim report through emails, letters and submissions.

The review was supported throughout by an advisory group comprising a range of subject experts, local authorities, early years, primary and secondary practitioners.

Equalities issues were consulted on through an Equalities Reference Group composed of a range of relevant organisations. Seminars were also held on equalities in the curriculum, involving

teachers and headteachers from a range of special and mainstream schools.

The evidence from the various sources falls into three categories:

- oral evidence, from individuals and associations;
- visits; and
- written evidence.

Oral evidence

This list sits alongside the 1,500 organisations, local authorities and schools from which the QCA gathered views as part of the review.

- Academy of Culinary Arts
- Advisory Committee on Mathematics Education (ACME)
- Sir Keith Ajegbo
- Professor Robin Alexander, Cambridge Primary Review
- Graham Allen MP
- Association for Physical Education (AfPE)
- Association for Science Education (ASE)
- Association for the Study of Primary Education (ASPE)
- Association of Schools and College Leaders (ASCL)
- Sir Michael Barber
- Becta, government technology agency
- John Bercow MP
- Professor Dorothy Bishop, Oxford University
- British Association for Early Childhood Education
- British Psychological Society
- Sir Alasdair Campbell
- Centre for the Use of Research and Evidence (CUREE)
- Changemakers
- Communication Friendly Spaces

- Council for Subject Associations (CfSA)
- Council for the Advancement of Arts, Recreation and Education (CAARE)
- Lord Dearing
- Design and Technology Association (DATA)
- Development Education Association (DEA)
- DCSF Faith Group
- Cllr Peter Downes OBE
- Early Childhood Forum
- Early Education Advisory Group
- Education Publishers Committee
- European Centre for Reading Recovery
- Every Child a Chance Trust
- Financial Services Authority
- Ford Motor Company
- Foresight Mental Capital and Wellbeing project
- Nick Gibb MP
- Michael Gove MP
- Hamilton Education
- Helen Hamlyn Trust
- Paul Hanbury, Solihull MBC
- Heritage Education Trust
- Historical Association
- I Can
- Implementation Review Unit (IRU)
- Institute of Education
- Brian Lamb, Lamb Inquiry
- Learning through Landscapes
- Dr Tommy MacKay, West Dunbartonshire Literacy Initiative
- Media Education Association
- NAHT
- NASUWT
- National Association for Primary Education (NAPE)
- National Association of Small Schools (NASS)
- National Centre for Excellence in the Teaching of Mathematics (NCETM)
- National College for School Leadership (NCSL)
- National Education Trust
- National Foundation for Educational Research (NFER)
- National Literacy Association (NLA)
- National Science Learning Centre
- National Strategies
- National Union of Teachers (NUT)
- The Nurture Group Network
- The Office for Standards in Education, Children's Services and Skills (Ofsted)
- Oxfam
- Richard Page-Jones
- Pearson Education
- Personal Finance Education Group (PFEG)
- Perspective
- Primary Colours Education
- Primary Umbrella Group (PUG)
- Publishers Association
- Reading Borough Council
- Royal Geographical Society
- Royal Horticultural Society (RHS)
- Russell Group
- School of Early Childhood and Primary Education
- Science Community Representing Education (SCORE)
- Scottish Executive
- Sex Education Forum
- Sound Start
- Southbank Centre
- Sustainable Development Commission
- Sir Cyril Taylor
- Teaching Awards
- Training, Advancement and Co-operation in Teaching Young Children (TACTYC)
- Training and Development Agency for Schools (TDA)
- UK Commission for Employment and Skills (UKCES)
- United Kingdom Literacy Association (UKLA)
- Universities' Council for the Education of Teachers (UCET)
- Volunteer Reading Help (VRH)
- Wave Twist
- Karen Wishart, Waltham Forest LA
- Dr Dominic Wyse, University of Cambridge

Visits

Evidence was drawn from visits to schools and nurseries. Of the schools visited by the review team, 20 included nursery-aged pupils (aged 3 and 4).

- Argyle Primary School, Camden
- Ash Field School, Leicester
- Balsall Common Primary School, Solihull
- Bournville Junior School, Birmingham
- Brettenham Primary School, Enfield
- Brucehill Early Education and Childcare Centre, West Dunbartonshire
- Bute House Preparatory School, Hammersmith and Fulham
- Cassop Primary School, Durham
- Clinton Primary School, Warwickshire
- Clunbury CofE Primary School, Shropshire
- Colleton Primary School, Wokingham
- Danes Hill School, Surrey
- Deans Primary School, Salford
- De Havilland Primary School, Hertfordshire
- Duncton CofE Junior School, West Sussex
- Edinbarnet Primary School, West Dunbartonshire
- Elmhurst Primary School, Newham
- Gallions Primary School, Newham
- Graffham Infants School, West Sussex
- Grosvenor Road Primary School, Salford
- Houston Primary School, Renfrewshire
- John Madejski Academy, Reading
- Kate Greenaway Nursery School and Children's Centre, Islington
- Kelsall Community Primary School, Cheshire
- Lent Rise Combined School, Buckinghamshire
- Marlwood School, South Gloucestershire
- Meridian Community Primary School, East Sussex
- Mills Hill Primary School, Oldham
- Montenev Primary School, Sheffield
- Mowlem Primary School, Tower Hamlets
- Notting Hill and Ealing High School, West Ealing
- Oliver Goldsmith Primary School, Southwark
- Our Lady of Loretto Primary School, West Dunbartonshire
- Peacehaven Infant School, East Sussex
- Perrymount Primary School, Lewisham
- Petersgate Infant School, Hampshire
- Portslade Infants School, Brighton and Hove
- Queen's Park Primary School, East Sussex
- Redlands Primary School, Hampshire
- St Andrew's (Barnsbury) CofE Primary School, Islington
- St Bartholomew's CofE Primary School, Surrey
- St Dominic's RC School, Gloucestershire
- St Fillan's Primary School, Renfrewshire
- St George's Hanover Square CofE Primary School, Westminster
- St Matthew Academy, Lewisham
- St Matthew's CofE School, Westminster
- South Farnham Community Junior School, Surrey
- Southwater Infant School, West Sussex
- Tangmere Primary School, West Sussex
- Torriano Junior School, Camden
- Vigo Junior School, Hampshire
- Walnut Tree Walk School, Lambeth
- West Kidlington Primary School, Oxfordshire
- Weydon School, Surrey
- Woodberry Down Community Primary School, Hackney
- Woolmer Hill School, Surrey
- Wroxham Primary School, Hertfordshire

Written evidence

The QCA provided a range of reports to support the evidence base.

- QCA Year 5 questionnaire (2007), summarising the views of over 2,000 Year 5 pupils
- QCA visits to 70 primary schools (2007), information from visits conducted by 15 associates in the spring and summer terms 2007
- INCA probe into the teaching and learning of skills in primary and secondary schools (2003), covering compulsory education (5 to 19 age range) across a range of countries and states: Queensland and Tasmania in Australia, Denmark, Finland, Hong Kong, Hungary, the Netherlands, New Zealand, Norway, Singapore, and Wisconsin in the USA
- INCA International Trends in Early Years Curricula (2003), focusing on data gathered from 17 countries
- INCA International Trends in Primary Curricula (2008) and Curriculum Areas (2008), focusing on data gathered from 18 countries
- INCA probe into transition from primary to secondary in selected countries (2003), including general information on a wide range of countries, and supplementary details on Australia, Finland, Germany, Japan, the Netherlands, New Zealand, Singapore, Spain and Sweden
- QCA Monitoring Curriculum and Assessment project (2006), gathering views from a national survey of 960 primary headteachers
- QCA review of 100 Ofsted primary inspection reports from January to March 2008
- QCA report on the curriculum in 30 schools deemed by Ofsted outstanding schools (2008)
- QCA literature review of young people's views of the curriculum (2006), focusing on 314 reports between 1997 and 2007
- QCA report on primary stakeholder engagement (2007/08), gathered from meetings with key stakeholders across the primary terrain from September 2007 to April 2008 and from over 1,000 primary evidence postcards
- QCA (in association with the University of Manchester) trends review of views on the primary curriculum (1996 to 2006)
- QCA literature review of stakeholder reports on primary education (2008), based on over 250 primary-related reports since 1991 from a wide range of stakeholders
- QCA (in association with CUREE) (2008) review of 56 meta-reviews covering 4,000 studies on curriculum
- QCA report on primary pupil questionnaire results (2008), summarising the views of 2,800 learners
- QCA review of Finland's National Core Curriculum for Basic Education (2004)
- QCA review (2008) of the OECD's project 'The Definition and Selection of Key Competencies (DeSeCo)' (1997–2003)

- QCA review (2008) of the European Union's eight key competencies for lifelong learning (2006)
- QCA review of the Institute of Education's 'The influence of context on attainment in primary schools' (2004)
- QCA review of 'The Effective Provision of Pre-School Education (EPPE) Project Report' (2004)
- QCA supported action research by young people of their friends' views of the curriculum
- QCA funded action research by 10 schools on aspects of the primary curriculum in 2008
- QCA review of the Institute of Education's 'The determinants of educational and career aspirations' (2008)
- QCA report (2009) on the evidence obtained from nine regional conferences with nearly 2,000 headteachers and local authority advisers
- Three QCA funded NFER surveys of nearly 1,000 teachers gathering their views of the primary curriculum, 2008 and 2009
- Three QCA online surveys (during 2008) on the current primary curriculum and the review, resulting in nearly 800 responses
- QCA summary of 10 parent focus groups (2007)
- QCA summary of a primary curriculum review seminar with parent and governor organisations (2009)
- QCA online survey of nearly 1,000 parents, gathering their views of the current primary curriculum (2009)
- QCA summary of a seminar with parents of children with special needs
- QCA summary of findings of 14 themed seminars, representing over 200 organisations, December 2008 to March 2009

Interim report consultation

As part of the response to the publication of the interim report, further evidence was also drawn from over 290 emails, letters and submissions to the review. Alongside responses from pupils, schools, parents, local authorities and companies were submissions from the following organisations and associations. These include some of those who also provided oral evidence.

Organisations

- Academy of Culinary Arts
- Advisory Committee on Mathematics Education (ACME)
- Amnesty International
- Arts Learning Consortium
- Association for Careers Education and Guidance (ACEG)
- Association for Language Learning
- Association for the Study of Primary Education (ASPE)
- Association of Investment Companies (AIC)
- Association of Schools and College Leaders (ASCL)

- Association of Teachers and Lecturers (ATL)
- Asthma UK
- Becta, government technology agency
- British Association for Early Childhood Education
- British Film Institute (BFI)
- British Nutrition Foundation
- Cambridge Assessment
- Cambridge Primary Review, Report on the Curriculum
- Cape UK
- Carnegie UK Trust
- Catch Up
- Catholic Education Service (CES)
- Child Accident Prevention Trust (CAPT)
- CILT, the National Centre for Languages
- Citizenship Foundation
- Communication Trust
- Council for Subject Associations (CfSA)
- DEA
- Design and Technology Association (DATA)
- Design Dimensions
- Drug Education Practitioners Forum
- Early Childhood Forum
- Early Education Advisory Group (EEAG)
- Early Years Curriculum Group
- Economics, Business and Enterprise Association (EBEA)
- England Biodiversity
- English Outdoor Council
- Family Planning Association (FPA)
- Federation of Music Services
- 'Film: 21st Century Literacy', Strategy Group
- Financial Services Authority (FSA)
- Focus on Food
- Forum for the Future
- General Teaching Council (GTC)
- Geographical Association
- Girls' Schools Association (GSA)
- Historical Association
- I Can
- Independent Schools Council (ISC)
- Joint Mathematical Council (JMC)
- Kids Taskforce
- Landscape Institute
- Learning through Landscapes Trust
- Linguistics Association of Great Britain
- London School of Islamics Trust
- Make Your Mark
- Mathematical Association
- Museums, Libraries and Archives Council
- Music Education Council (MEC)
- NAHT
- Nasen
- National Association for Environmental Education (NAEE)
- National Association for Language Development in the Curriculum (NALDIC)
- National Association for Primary Education (NAPE)
- National Association of Language Advisers
- National Association of Music Educators (NAME)
- National Campaign for Real Nursery Education
- National Centre for Excellence in the Teaching of Mathematics (NCETM)
- National Dance Teachers Association (NDTA)
- National Deaf Children's Society (NDCS)
- National Drama
- National Education Trust
- National Health Education Group (NHEG)
- National Literacy Trust (NLT)
- National Primary Heads (NPH)
- National Strategies
- National Trust
- National Union of Teachers (NUT)
- NSCoPSE (National PSE Association)
- Open EYE Campaign
- Oxfam
- Pedagogy, Language, Arts and Culture in Education (PLACE), University of Cambridge
- Personal Finance Education Group (PFEG)
- Play England
- Publishers Association
- Refuge

- REinspired
- Royal College of Speech and Language Therapists (RCSLT)
- Royal Geographical Society (with the Institute of British Geographers)
- Royal Horticultural Society (RHS)
- Royal Society for the Prevention of Accidents (RoSPA)
- Save the Children
- School Food Trust
- School Library Association
- Schools Council UK
- Science Community Representing Education (SCORE)
- Sustainability and Environmental Education
- Sustainable Development Commission
- Tide Global Learning
- Training, Advancement and Co-operation in Teaching Young Children (TACTYC)
- UNICEF
- United Kingdom Literacy Association (UKLA)
- Universities' Council for the Education of Teachers (UCET)
- Values Education Trust
- Volunteer Reading Help (VRH)
- World Cancer Research Fund
- World Organisation for Early Childhood Education (OMEP)
- World Wide Fund for Nature

Advisory Group

The review was supported by the 0–14 Advisory Group, chaired by Sir Jim Rose, of leading headteachers and some system leaders. The group met five times at key stages of the review and used its expertise to comment on evidence, iterative versions of QCA development work, and Sir Jim Rose's interim and final reports.

- Gugsy Ahmed, Parkinson Lane Community Primary School
- Sue Barratt OBE, Bournville Junior School
- Jeffrey Bateson-Winn, Mead Vale Primary School
- Peter Batty, University of Cumbria
- Helen Bennett, DCSF
- Paul Bennett, NCSL
- Brenda Bigland CBE, Lent Rise Combined School
- Sue Blackburn, Coalbrookdale and Ironbridge CofE Primary School
- Mandy Boutwood, Harbinger Primary School
- Viv Bullock, Brighton and Hove City Council
- Bernadette Caffrey, Northampton County Council
- Siobhan Collingwood, Morecambe Bay Primary School
- Jo Cottrell, Halterworth Primary School
- John Davies, Dudley Local Authority
- Heather Donayou, Pen Green Centre
- Pete Dudley, Primary National Strategy
- Dr Gill Eatough, Hadley Learning Community
- Andrew Fielder, Sandy Hill Community Primary School
- Helen Fletcher-Davies, South Farnborough Infant School
- Nigel Furness, Independent Consultant
- Narinder Gill, Hunslet Moor Primary School
- Julian Grenier, Kate Greenaway Nursery

- Janet Huscroft, Hook CofE Primary School
- Louise Johns-Shepherd, Primary National Strategy
- Reena Keeble, Cannon Lane First School
- Darran Lee, Mills Hill Primary School
- Mark Lees, Beechwood and Oakwood Primary Schools
- Chris Lockwood, Frederick Bird Primary School
- Joy McCormick, Children's Education Service
- Abdul-Hayee Murshad, Hermitage School
- Jacquie Nunn, TDA
- Ruth Pimentel, Primary National Strategy
- Usha Sahni, Ofsted
- John Stannard, Gifted and Talented Champion
- Sue Tanner, Chalfonts Community College
- Sam Twiselton, University of Cumbria
- Jan Campbell, Independent PSHE Adviser
- Fiona Forrest, Arts Council
- Richard Hallam MBE, DCSF Music Adviser
- Clare Johnson, National Strategies
- Dr Lid King, Languages Company
- Professor David Lambert, Geographical Association
- Liz Lawrence, Association for Science Education
- Sally Rundell, National Strategies
- Dr John Steers, National Society for Art and Design

Editorial Expert Group

The Editorial Expert Group was formed to assist QCA with the drafting of the programmes of learning. This group included the following.

- Patrice Baldwin, National Drama
- Derek Bell, Wellcome Trust
- Professor Clare Benson, Director CRIPT, Birmingham City University
- Professor Margaret Brown, King's College London
- Nigel Bufton, National Strategies
- David Butler, Ofsted
- Clare Stretch, Youth Sport Trust
- Professor Margaret Talbot, Association for Physical Education
- Sue Trotman, Sandwell Local Authority
- Jane Turner, Science Learning Centre, East of England
- Chris Waller, Association for Citizenship Teaching
- Rick Weights, Historical Association

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