The National Strategies
Secondary

Assessing pupils' progress in ICT at Key Stage 3

Teachers' handbook

department for
children, schools and families

QCA
Qualifications and
Curriculum Authority

Assessing pupils' progress in ICT at Key Stage 3

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Please check all website references carefully to see if they have changed and substitute other references where appropriate.

Contents

1. Assessing pupils' progress – an introduction

In May 2008, the Department for Children, Schools and Families (DCSF) published the Assessment for Learning (AfL) Strategy[1] The aims of the strategy are 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;

- **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.

The AfL Strategy document provides a vocabulary that helps to clarify the three linked aspects of assessment and that can be consistently applied across curriculum areas and phases.

Day-to-day assessment provides a wide range of evidence of learning in specific contexts which shapes immediate next steps.

Periodic review of this evidence gives a clear profile of pupils' achievement across a whole subject and informs and shapes future planning and targets for improvement.

When required, these judgements and insights can be more formally shared between pupils, parents and teachers at **transitional** points between year groups, schools and phases.

The key features of these three assessment viewpoints are summarised here:

Day to day	Learning objectives made explicit and shared with pupils Peer and self-assessment in use Pupils engaged in their learning and given immediate feedback
Periodic	Broader view of progress across subject for teacher and learner Use of National Standards in the classroom Improvements to medium-term curriculum planning
Transitional	Formal recognition of pupils' achievement Reported to parents/carers and next teacher(s) May use external tests or tasks

[1] http://publications.teachernet.gov.uk/default.aspx?PageFunction=productdetails&PageMode=publications&ProductId=DCSF-00341-2008

The APP approach supports teachers' assessment and their understanding of pupils' attainment and progress in each of these three linked aspects but it is particularly designed to strengthen periodic assessment.

This handbook focuses on the process of periodic assessment, and also refers to aspects of day-to-day practice that provide evidence for periodic assessment. It does not deal directly with the process of transitional assessment.

1.1 What is Assessing Pupils' Progress (APP)?

Assessing Pupils' Progress (APP) is a structured approach to periodic assessment, enabling teachers to:

- track pupils' progress over a key stage or longer;
- use diagnostic information about pupils' strengths and weaknesses to improve teaching, learning and rates of pupils' progress.

Using APP materials, teachers can make more consistent level-related judgements in National Curriculum subjects.

The APP approach improves the quality and reliability of teacher assessment and has proved to be robust, manageable and effective in practice.

APP supports planning for progression in learning and helps teachers to develop their skills and judgements in assessing pupils' progress. It involves generating evidence of progress through effective teaching and learning and then 'stepping back' periodically to review pupils' achievement in relation to National Curriculum levels.
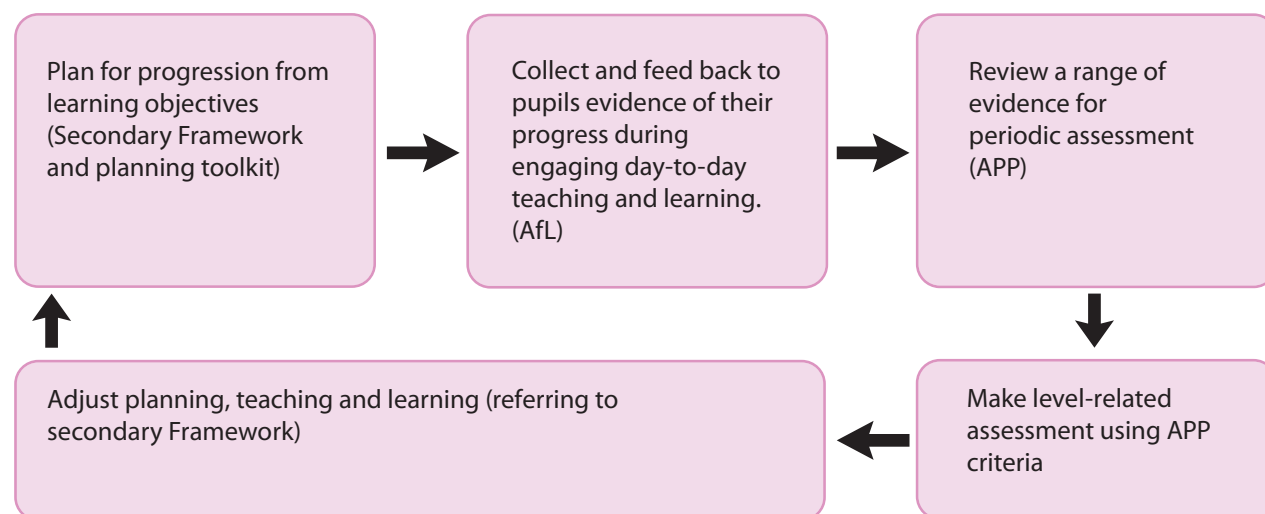
1.2 What are the benefits of adopting APP?

APP is valuable to teachers because it has the potential to enhance pupils' progress by:

- increasing the consistency and reliability of teacher assessment;
- supporting teachers in aligning their judgements systematically with National Standards;
- linking day-to-day and periodic approaches to assessment;
- providing high-quality evidence to inform next steps in pupils' learning and reporting on pupils' progress;
- integrating assessment into planning for progression;

- providing a National Curriculum attainment target level when needed, from an informed, holistic evaluation of progress against APP assessment criteria.

School leaders and teachers who have been involved in the APP pilots have reported that the main advantages for a department of adopting APP are that it:

- gives a detailed profile of what a pupil can do in relation to the assessment criteria;

- contributes to improved learning and more responsive teaching;

- contributes to the professional development of all teachers, particularly of less experienced colleagues;

- helps teachers prioritise areas of the curriculum where teaching and learning need to be strengthened;

- strengthens AfL, and in particular questioning and talk about pupil understanding in lessons.

1.3 How does APP contribute to the Assessment for Learning Strategy?

APP provides systematic support for the three linked aspects of assessment:

Aspect	AfL strategy	APP contribution
Day-to-day	Learning objectives made explicit and shared with pupils

Peer and self-assessment in use

Pupils engaged in their learning and given immediate feedback | APP encourages recognition of a wide range of evidence from pupils' ongoing, day-to-day work |
| Periodic | Broader view of progress across subject for teacher and learner

Use of national standards in the classroom

Improvements to medium-term curriculum planning | APP enables the review of evidence to be systematic by focusing closely on level-related criteria in each of the assessment focuses |
| Transitional | Formal recognition of pupils' achievement

Reported to parents/carers and next teacher(s) | APP strengthens teachers' assessments and their understanding of pupils' progress, so that this more formal sharing can be valid, reliable and detailed |

The DCSF's AfL Strategy describes how assessment for learning is not an isolated activity. It feeds into the school's cumulative understanding of pupils' achievements. This comes from both day-to-day and periodic assessment, with evidence contributing to an increasingly well-informed, rounded and reliable picture of an individual pupil's performance. APP will support senior leaders in schools to ensure that their approach to assessment for learning is part of a manageable and school-wide system.

1.4 APP background and future developments

APP materials have been developed through extensive piloting in schools. This has involved the Qualifications and Curriculum Authority (QCA) and the National Strategies and has been funded by the Department for Children, Schools and Families. National materials are now available for reading, writing

and mathematics at key stages 1, 2 and 3 and for science and ICT at key stage 3.

Further work is underway to develop a consistent approach across subjects and phases.

Further information on the APP approach to teacher assessment is available on the QCA website at www.qca.org.uk/assessment and on the secondary section of the National Strategy website at www.standards.dcsf.gov.uk/nationalstrategies/ where, together with support for effective teaching and learning, APP materials for English, mathematics, science and ICT are available to view and download.

1.5 How to use this handbook

This handbook is for subject leaders and their departments, to help them implement APP effectively in the classroom. Section 2 of this guide provides advice on putting APP into practice and section 3 demonstrates how schools can implement APP. Section 4 shows the process required to make APP assessments.

The APP pilots have shown that the active involvement of a senior member of their school staff is critical to successful implementation of this approach. An additional leaflet is provided that suggests the initial considerations for the headteacher and school senior leadership team (SLT), the planning decisions required to identify the staff to be involved, their continuing professional development (CPD) and training needs and the activities to secure teachers' assessment judgements through planned in-school standardisation and moderation activity.

2. APP in practice

APP has a number of linked purposes:

- The identification through periodic assessment against national criteria of relative strengths and weaknesses that can:

  - indicate the next important learning steps for individual pupils (curricular targets);

  - reveal areas of learning that need to be strengthened in a whole class or year group through curriculum changes.

- The planning of specific outcomes for teaching and learning and well-matched assessment opportunities in schemes of work, to ensure that pupils make two levels of progress over a key stage.

- The periodic assessment of pupils' progress through the assignment of a National Curriculum level at given intervals throughout the key stage to supply secure tracking information.

Achieving these purposes using the APP approach is straightforward.

- At the point of planning for a sequence of teaching, APP is used to identify intended assessment outcomes linked to the framework objectives being taught, for the range of pupils in the class.

- At regular intervals, that are planned to fit in with school assessment policy, teachers review pupils' work using APP guidelines to build a profile of their attainment and assign overall levels for ICT.

- The assessments are used to inform future learning and teaching in class, curriculum planning and provision for additional support and intervention for pupils struggling to make progress.
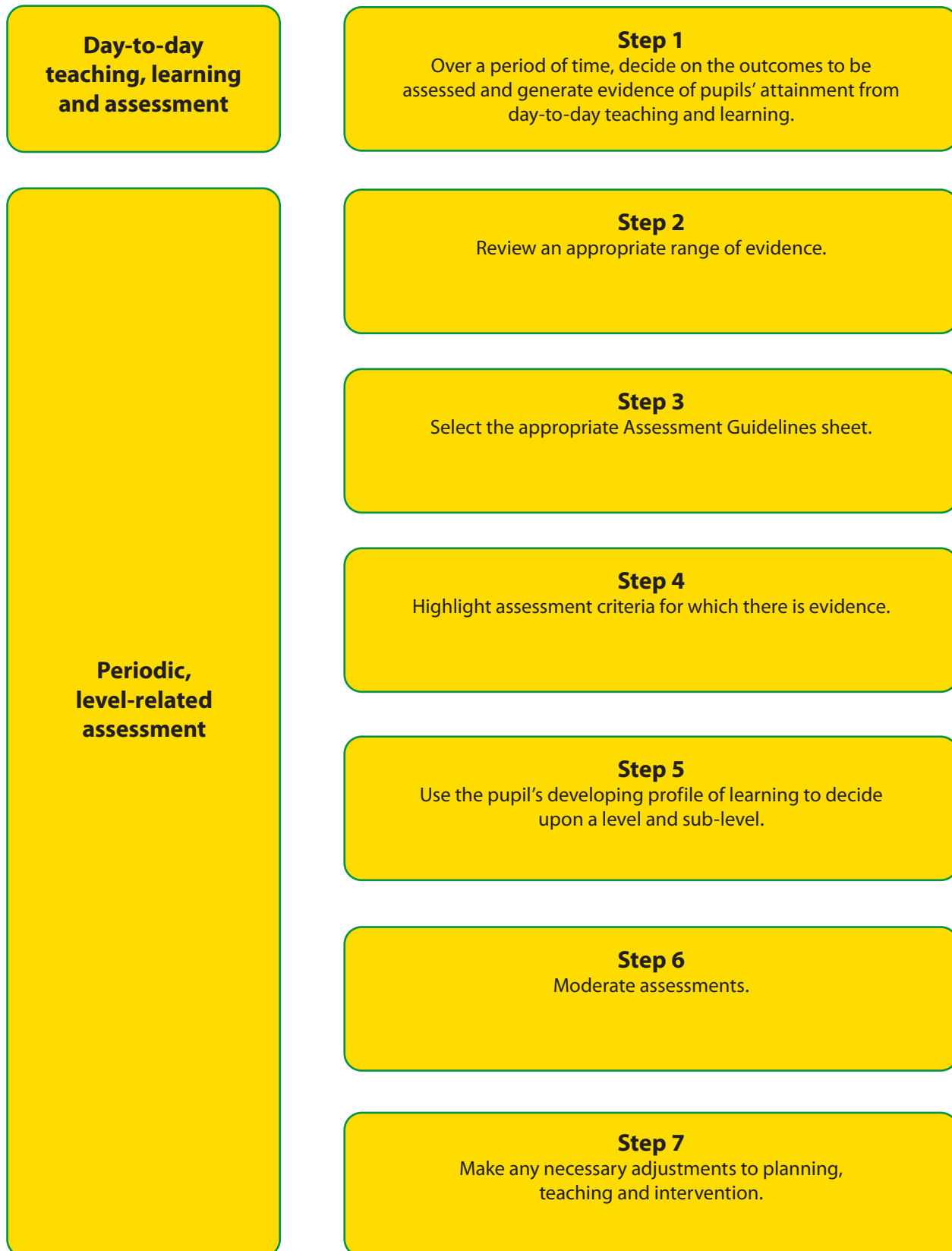
2.1   The APP resources
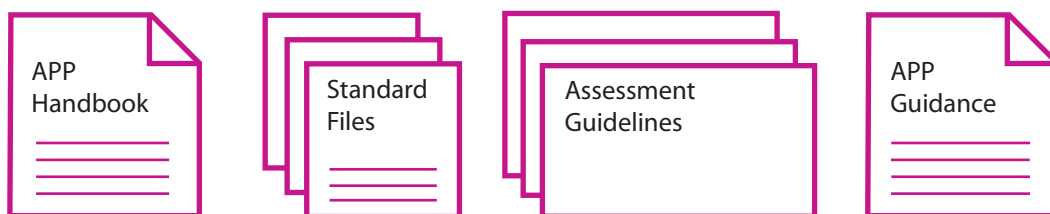
There is a range of APP resources available.

- This document, the **APP Handbook**, explains the whole-school context for assessment, and introduces APP as a tool for periodic assessment. It provides all of the practical guidance that departments will need to develop and embed APP in ICT.

- The **Standards Files** are exemplifications of National Standards. These will help departments to reach consistent and reliable judgements about National Curriculum levels for different areas of ICT. The Standards Files are described more fully in the Appendix of this handbook.

- The **Assessment Guidelines** set out level-related APP assessment criteria for each AF. They offer a simple recording format for an individual pupil, providing assessment criteria for the AFs in ICT, covering two National Curriculum levels. These guidelines are available in two formats. In A3 format, all levels from 3 to 8 are shown on one sheet. This is particularly useful as a reference point, allowing teachers to spot gaps in pupils' profiles and contributing to their understanding of how pupils progress up through the levels. The A4 format, which shows two levels on a page, is recommended for recording judgements for individual pupils and is the version referred to in the guidance that follows.

- The **APP Guidance booklet** (forthcoming) provides additional support for departments in implementing the APP approach.

2.2 The APP Process

The diagram summarises the sequence of events involved in APP as a series of seven steps. The sequence assumes that teachers will already have participated in standardisation exercises to ensure consistent interpretation of the assessment criteria.

Day-to-day teaching, learning and assessment

Step 1
Over a period of time, decide on the outcomes to be assessed and generate evidence of pupils' attainment from day-to-day teaching and learning.

Periodic, level-related assessment

Step 2
Review an appropriate range of evidence.

Step 3
Select the appropriate Assessment Guidelines sheet.

Step 4
Highlight assessment criteria for which there is evidence.

Step 5
Use the pupil's developing profile of learning to decide upon a level and sub-level.

Step 6
Moderate assessments.

Step 7
Make any necessary adjustments to planning, teaching and intervention.

At certain times, the outcomes of Step 5 will be used for the purposes of transitional assessment such as reporting on a pupil's attainment at the end of a school year.

Section 2.3 of this handbook describes each of these steps in more detail.

2.3 APP step-by-step

Step 1: Over a period of time, decide on the outcomes to be assessed and generate evidence of pupils' attainment from day-to-day teaching and learning

As part of the planning of teaching and learning for any class, teachers will identify relevant assessment criteria. Evidence is then generated over a period of time and forms the basis of the APP process of periodic assessment, which involves stepping back from the daily and weekly process of teaching, and assessing progress made across the subject over a longer period – perhaps a whole term or more.

Step 2: Review an appropriate range of evidence

Teachers will need to take account of a manageable range of evidence to inform and support APP assessments against the APP criteria. Much of this evidence will come from ICT lessons but some may be generated in other subject areas or contexts. Teachers will also need to consider more ephemeral evidence of pupil achievement, such as discussions between pupils and between teacher and pupils.

Step 3: Select the appropriate assessment guidelines sheet

Teachers will usually start with a broad idea of the National Curriculum level that a pupil is working within – perhaps based on prior attainment. Each pupil will need an assessment guidelines sheet that will be used to record assessments by highlighting relevant criteria. Each assessment guideline form contains a table covering two National Curriculum levels, with overlaps. For example, there are forms with tables covering levels 3 and 4, 4 and 5, 5 and 6, and so on. Referring if necessary to the full set of guidelines in A3 format, teachers should choose an appropriate form for each pupil so that periodic assessments can build up a profile of the pupil's learning over time. Follow the instructions set out in Section 4 of this handbook ('How to make APP assessments').

Step 4: Highlight assessment criteria for which there is evidence

Teachers should now consider the APP criteria in relation to the assembled evidence and highlight the criteria that have been met. For many teachers, it will take time before this process becomes quick and efficient. However, the experience of the pilot project suggests that the process of agreeing levels within the department, based on the guidance in the Standards Files, will help teachers to develop a better feel for levels and progression. The Appendix to this handbook contains full guidance on using the Standards Files.

Step 5: Use the pupil's developing profile of learning to decide upon a level and sub-level

As successive assessments are made by highlighting criteria in the table, a profile of learning for each pupil is established. For each assessed focus shown in the table, a box can be ticked to indicate that a particular level has been reached. Judgements are refined into 'Low', 'Secure' or 'High' within the level. Alternatively, 'IE' can be chosen to indicate that there is currently insufficient evidence to judge progress in a particular strand, or 'BL' if the judgement is below level.

At intervals, teachers will use the process described in section 4 of this handbook to arrive at an overall National Curriculum level for individual pupils. This is done by taking into account how independently, how consistently and in what range of contexts pupils demonstrate their attainment across the separate AFs. The overall level can be recorded at intervals in the boxes provided at the bottom of the form.

Step 6: Moderate assessments

Assessment against criteria inevitably involves a degree of interpretation and professional judgement. Departments will need to ensure that, before they start to use APP, teachers have the chance to become familiar with the assessment criteria, and how these are consistent with National Standards

(standardisation). Once they begin to make their own judgements, they need to have the chance to explain and justify a sample with other teachers to ensure consistency (moderation). The Standards Files will help both these processes, as explained in the Appendix. Teachers should make regular reference to the Standards Files to strengthen their understanding of the levels across the National Curriculum strands, and to help to resolve ambiguous or borderline assessments. Regular collaborative assessment and discussion is an important means of ensuring that assessment standards across the department are reliable and consistent.

Step 7: Make any necessary adjustments to planning, teaching and intervention

A key purpose of APP is to inform and strengthen planning, teaching and learning. This aspect of APP can have a direct and positive impact on raising standards, and can assist in the personalisation of learning.

The diagram below summarises the key aspects of this part of the APP process.
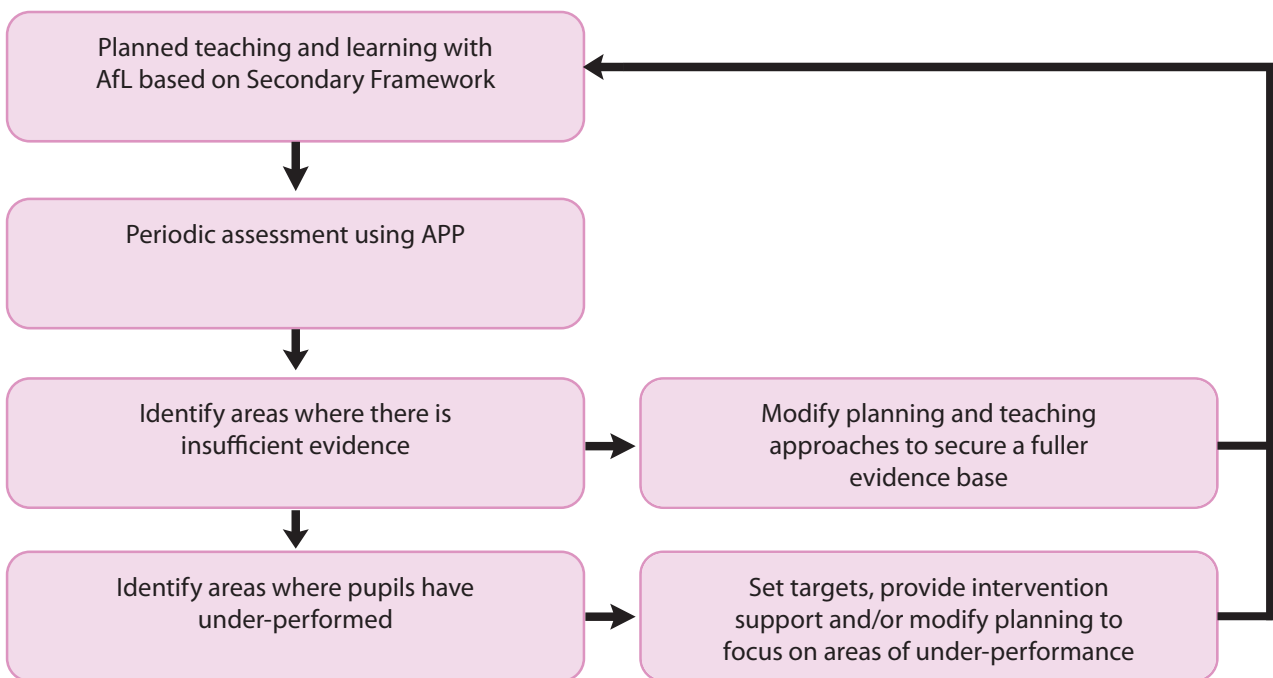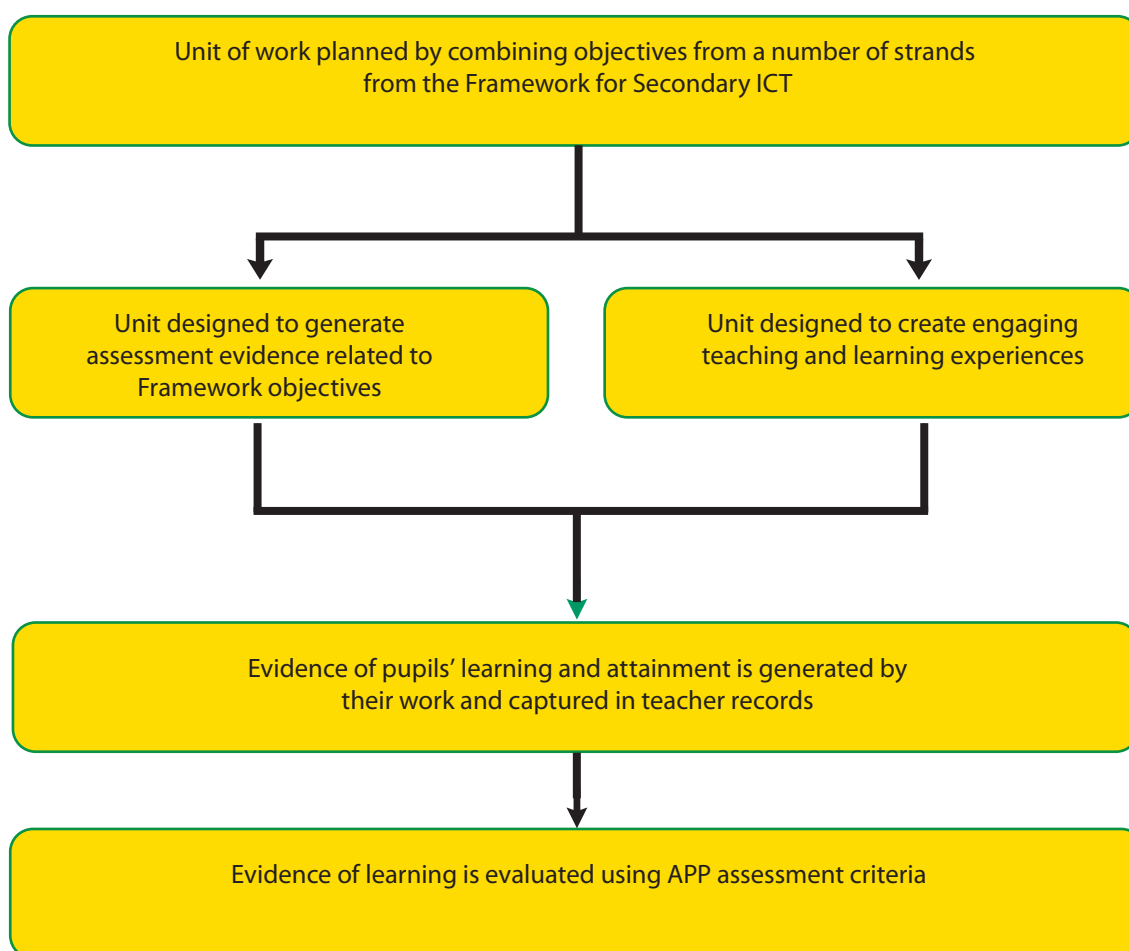
2.4 Relationships between APP, the Secondary National Strategy ICT Framework and the National Curriculum

The APP assessment criteria are based on the National Curriculum level descriptions and link to the Framework for secondary ICT.

It is important that planning for teaching and learning is based on the objectives from the Framework for secondary ICT. This will ensure that pupils have their broad curriculum entitlement as described in the National Curriculum. The APP assessment criteria should be used to assess learning outcomes, not to lead the curriculum.

The assessment criteria do, however, inform planning because teachers need to have an idea of the type of assessment evidence that any sequence of lessons will generate. For this reason, in the Framework for secondary ICT, the objectives are linked to APP AFs. This allows teachers to see, in advance, the areas and focuses for assessment their planned unit of work will allow.

This is represented in the diagram below:

Unit of work planned by combining objectives from a number of strands from the Framework for Secondary ICT

Unit designed to generate assessment evidence related to Framework objectives

Unit designed to create engaging teaching and learning experiences

Evidence of pupils' learning and attainment is generated by their work and captured in teacher records

Evidence of learning is evaluated using APP assessment criteria

To see the way that learning objectives are linked to the APP assessment criteria, go to the secondary section of the National Strategy website at www.standards.dcsf.gov.uk/nationalstrategies/

The table below clarifies the distinction between the learning objectives of the Frameworks and the assessment guidelines of APP.

National Strategy Frameworks	APP guidelines
Based on the statutory Programme of Study for the subject, each Framework sets out in detail the learning objectives which form the basis for teachers' medium- and short-term planning. They seek to identify progression in the curriculum.	Based on the statutory Level Descriptions for the subject, the criteria which are set out in the assessment guidelines describe the characteristic performance of pupils at each level within key aspects of the subject.
The Framework objectives are the principle reference point for planning full curriculum coverage of a subject.	The APP guidelines give teachers a basis for periodically considering the available evidence and judging how well pupils have succeeded across the subject as a whole.
While schools and teachers are free to plan a curriculum which will engage their particular learners, the Frameworks specify what needs to be covered within the teaching of a specific subject.	The assessment criteria are sufficiently broad to allow a wide range of evidence to be taken into account. Much of this derives from classroom teaching of the subject but evidence can be drawn from other subjects and from pupils' learning beyond the school.
Framework learning objectives are presented within 'strands'; teachers can use the curriculum progression within these strands to determine the appropriate pitch of the work for pupils of different abilities within the class.	The assessment guidelines provide a structure for looking at the evidence of pupils' learning. They focus on significant aspects of performance in the subject.
Framework learning objectives set out in reasonable detail the knowledge, skills and understanding which need to be acquired in that subject across a period of time.	APP criteria generally describe a small number of features of pupils' work or learning which are characteristic of their independent performance at each level in each strand.
Clarity about the objectives of specific teaching gives pupils a greater sense of purpose and direction. It also provides a strong basis for immediate feedback to the pupil in the specific context of the teaching and learning.	Use of the APP criteria gives teachers and pupils a broader view of learning across the whole subject over a period of time (typically over a term) and across different contexts.
The learning objectives represent the basis of a curriculum experience for every learner; teachers will organise and present them in a variety of ways and pupils in all types of settings will engage with them differently.	APP criteria are predicated on pupils of all abilities having access to the full curriculum; they allow the variation in pupils' responses to be assessed periodically and they help teachers identify where more work is required in day-to-day learning and teaching and where medium-term planning needs to be adjusted.

3. Implementing APP

Embedding APP practice should not be seen as an end in itself. Rather, the department should be working on reviewing and strengthening all aspects of teaching and learning, using the full range of resources available in, for example, the renewed Framework. Within this work, departments should aim to make at least some APP judgements collaboratively, especially during the early stages of implementation. A collaborative approach to strengthening assessment will provide important feedback on the impact of developments in teaching and learning.
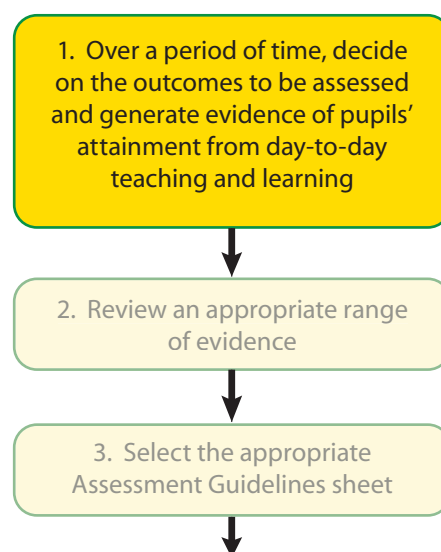
There are various ways in which the collaborative development of APP can be organised. For example, time could be allocated within departmental meetings for standardisation and moderation. Other arrangements could be made to suit the needs of particular departments. For example, a newly-qualified teacher might work with a more experienced colleague to review APP judgements made for a particular class, or an AST could take responsibility for leading APP developments across the department and sharing experiences and expertise with neighbouring schools.

3.1 Steps towards implementation

This section provides guidance to subject leaders and other teachers involved in implementing APP in secondary ICT departments. It is helpful to think of implementation in terms of the seven steps described in section 2.

Step 1: Deciding on the outcomes to be assessed and collecting evidence of pupils' attainment from day-to-day teaching and learning.

APP is a process of periodic review of work already done, not a new assessment event. At the point of planning from the framework, teachers will need to be aware of intended outcomes and assessment opportunities. The school assessment policy will influence when teachers will make APP judgements, although subject leaders will need to discuss with senior leaders how APP will be developed to complement and strengthen existing assessment practice. As a basic principle the work reviewed in each periodic assessment should cover a range of areas of ICT and at least one term's progress. This suggests that departments will most likely formalise their judgements termly, allowing meaningful contributions to whole-school pupil tracking programmes. For ICT departments that are making initial APP judgements, it will be useful to work collaboratively at first, to ensure that all the teachers in the department develop an understanding of the approach and a common interpretation of the APP criteria.

1. Over a period of time, decide on the outcomes to be assessed and generate evidence of pupils' attainment from day-to-day teaching and learning

2. Review an appropriate range of evidence

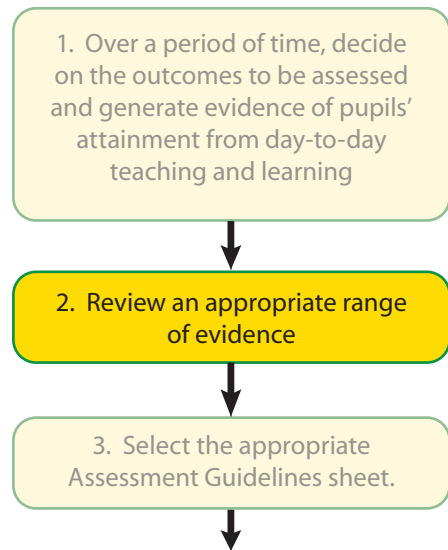3. Select the appropriate Assessment Guidelines sheet

Step 2: Review an appropriate range of evidence

Before departments start to make APP assessment judgements they will need to:
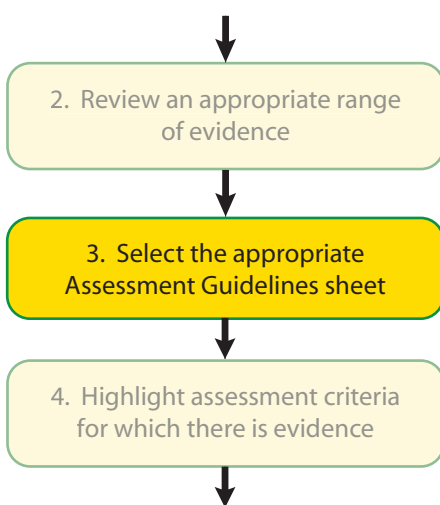
- Become familiar with the APP criteria for the relevant levels through a standardisation process by careful study of the Standards Files

- Identify in planning and teaching the relevant assessment opportunities as necessary to ensure that a full range of evidence is generated

- Be aware of the range of pupil work and records of interaction relevant to the success criteria to be addressed.

These preparatory steps could usefully be tackled over a short series of departmental meetings.

> 1. Over a period of time, decide on the outcomes to be assessed and generate evidence of pupils' attainment from day-to-day teaching and learning

> 2. Review an appropriate range of evidence

> 3. Select the appropriate Assessment Guidelines sheet.

For example, a department might have agreed to work together to make APP judgements for the first term's work in Year 9. The department could then work on these activities:

- Identify the APP assessment criteria that are addressed in the relevant units.

- Decide whether the teaching and learning approaches in the existing units allow sufficient scope for generating the relevant evidence. For instance:

  - Are there enough opportunities for dialogue and discussion that can allow teachers to probe pupils' understanding? How will 'ephemeral' evidence of this kind be collected?

  - Are there open-ended tasks that allow pupils to demonstrate their independent mastery and understanding of the key areas?

- If necessary, adjust unit plans so that a comprehensive but manageable set of evidence will be available without the need to collect significant additional information.

> 2. Review an appropriate range of evidence

> 3. Select the appropriate Assessment Guidelines sheet

> 4. Highlight assessment criteria for which there is evidence
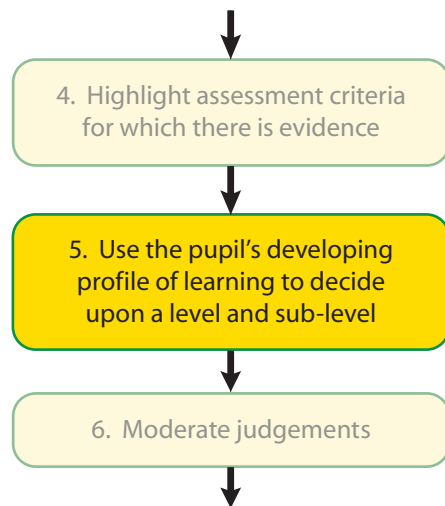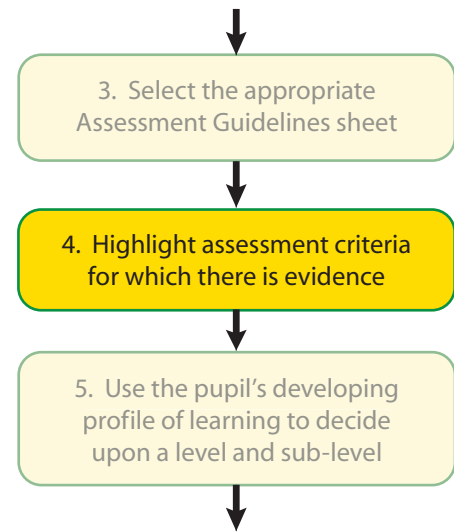
Step 3. Select the appropriate assessment guidelines sheet

Teachers can now work together, perhaps in small groups, to select the appropriate assessment guidelines sheet for an initial sample of pupils, based on their knowledge of the approximate National Curriculum levels at which pupils are working. The process of arriving at a reliable APP assessment can be thought of as 'zooming in' on a pupil through increasing levels of detail.

Step 4: Highlighting assessment criteria for which there is evidence

This is the crucial stage at which teachers decide what constitutes 'success' for each of the criteria being considered. It is important that all of the teachers in the department develop a secure and consistent interpretation of the APP assessment criteria, so that reliable assessments can be made against National Standards. For most departments, developing this expertise is likely to be a major piece of collaborative professional development to be tackled over a significant period of time. It is important that all teachers are involved in a continuing professional discussion in order to reach a consistent interpretation within the department. The Standards Files provide an agreed set of national benchmarks against which the department's judgements can be standardised and then moderated. There is more guidance on using the Standards Files in the Appendix to this booklet.

3. Select the appropriate Assessment Guidelines sheet

4. Highlight assessment criteria for which there is evidence

5. Use the pupil's developing profile of learning to decide upon a level and sub-level

Step 5: Use the pupil's developing profile of learning to decide upon a level and sub-level
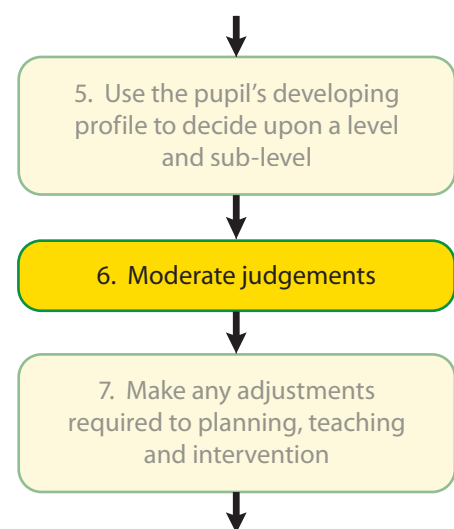
Reaching a reliable level and deciding on a 'high', 'secure', or 'low' sub-level is another aspect of the APP process that will benefit from collaborative development. For example, pairs of teachers could work through completed assessment grids from their respective classes, and discuss and decide upon the appropriate profiles, using their knowledge of the pupils concerned.
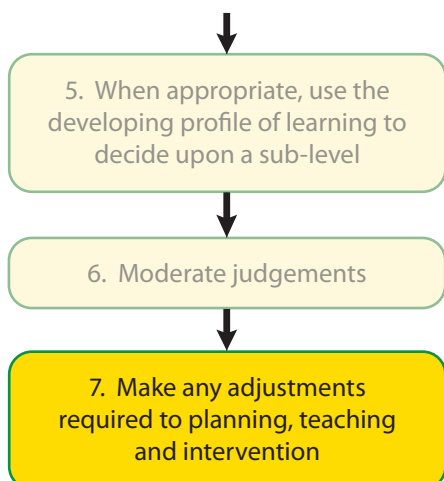
This stage should not be rushed. It may take time before the developing profile of learning shown on the guidelines sheet has sufficient coverage to allow an overall judgement to be made. It is also likely to take a significant amount of time for teachers to develop the confident grasp of the criteria that is required to allow overall judgements to be made.

4. Highlight assessment criteria for which there is evidence

5. Use the pupil's developing profile of learning to decide upon a level and sub-level

6. Moderate judgements

Step 6: Moderate judgements

Moderation activities could form a regular part of departmental meetings. For example, teachers could be asked to present judgements made against APP assessment criteria for a particular pupil, and to justify these judgements using evidence from the pupil's work. The use of the Standards Files to resolve differences of interpretation would be an important aspect of this work.

The process of moderating and standardising pupils' work will be familiar to many ICT teachers from their existing practice at key stage 3 and subject leaders should use APP to review and refresh this good practice to secure teacher assessment.

5. Use the pupil's developing profile to decide upon a level and sub-level

6. Moderate judgements

7. Make any adjustments required to planning, teaching and intervention

5. When appropriate, use the developing profile of learning to decide upon a sub-level

6. Moderate judgements

7. Make any adjustments required to planning, teaching and intervention

Step 7: Making any adjustments required to planning, teaching and intervention

As the use of APP develops, departments will be building up a profile of learning for individual pupils, and will also be developing their understanding of patterns of achievement across year groups, classes and units of work.

A continuing focus on moderation and standardisation will be essential to ensure that APP data is accurate and reliable. Providing this happens, APP will provide a wealth of data that will enable departments to make informed decisions about planning, teaching and intervention.

For example:

- Where there is a disparity in performance on particular assessment criteria between similar classes following the same scheme of work, the teachers involved could work together, perhaps observing each other's lessons, to identify and share features of effective practice.

- APP data can be used to inform pupil tracking, and to assist early identification of pupils at risk of underachievement, for whom intervention teaching might be appropriate.

- As departments review their schemes of work, APP evidence can be used to help to evaluate the effectiveness of current approaches and identify areas for development.

4. How to make APP assessments

The table below summarises the process to follow when using APP to make periodic teacher assessment judgements

Materials required	Process to be followed

You will need:
 	
• evidence of what pupils have achieved independently that is significant and representative. Annotated printouts will often be the main source of such evidence but may also include e-portfolios, annotated electronic files and brief teachers' notes recording contributions to group or oral work.
 	
• assessment guideline sheets for the pupils to be assessed
 	
• the Standards Files for reference
	Stage 1: Making AF judgements
	
	• Select the appropriate assessment guidelines for the level borderline at which you think the pupil is working.
	
	• Consider the evidence for each AF in relation to the criteria and highlight those which have been met.
	
	• Decide which level offers the best-fit for each AF, referring to the Standards Files as necessary, and tick the appropriate level-related box.
	
	Stage 2: Making an overall level judgement
	
	Follow the guide on page 18 to:
	
	• Make an overall level judgement.
	
	• Decide whether the level is low, secure or high. The process can be summarised in this way:
	
	  – the overall level is the highest level at which all or most of the assessment criteria for the majority of AFs are highlighted;
	
	  – the chart below defines this process more precisely and describes how to assign low, secure or high sub-levels.
	
	The terms 'low', 'secure' and 'high' broadly equate to sub-levels c/b/a for the purpose of recording and tracking data. Rather than being based on a mathematical formula for sub-dividing a level, 'low', 'secure' and 'high' reflect the professional nature of the judgements that are made through APP, based on a teacher's consideration of a range of evidence over time.
	
	Stage 3: Checking the overall level judgement
	
	• Check, standardise and moderate the final judgement against the relevant Standards Files.

4.1 Guide for completing assessment guidelines and making a level judgement

Stage 1: Making AF judgements

For each AF:

- look at the evidence in relation to all the criteria for both the higher and lower levels at this borderline and highlight those that have been met;

- make a best-fit judgement whether the higher or the lower level has been achieved and record your judgement by ticking the appropriate level-related box;

- if there is some evidence for an AF but not enough to make a judgement at the lower level, record a judgement of Below Level by ticking the BL box;

- if there is no evidence for a particular AF, record this by ticking the IE (Insufficient Evidence) box.

If you have ticked BL for more than one AF, check whether you should be using the assessment guidelines for the level borderline below.

If you have ticked all, or almost all of the criteria for the higher level, check whether you should be using the assessment guidelines for the level borderline above.

Stage 2: Making an overall level judgement

Check your AF judgements against the requirements for each level. AF1: Planning, developing and evaluating should be used as the key indicator.

If you have ticked IE for one or more AFs, there may be insufficient evidence to make an overall level judgement, in which case IE should be recorded.

Now finalise the overall level judgement by deciding whether the level is low, secure or high. For levels 3-6:

Low – several criteria for the level are highlighted but there are substantial gaps. Only 1 of the criteria in AF1 has been met. The pupil is working within the overall level, but there are significant areas that need to be developed further before secure performance at the level is demonstrated.

Secure – most of the criteria for the level are highlighted in each AF. The first 2 criteria in AF1 are met. There may be a few unmet criteria in other AFs, but the highlighting shows that the standard for the level has been substantially met across each of the assessment focuses.

High – the criteria for the level are highlighted across all, or almost all, the AFs, with some criteria in the level above being highlighted for some AFs. All criteria in AF1 are met.

Your decision should take account of how fully and consistently the criteria have been met and how far the pupil demonstrates independence and choice across a range of evidence.

For levels 7-8, judgement should be made using the majority of criteria which are met.

Stage 3: Checking the overall level judgement

Finally, check the overall judgement by comparing the evidence with the relevant Standards Files.

Appendix

The Standards Files

The Standards Files for ICT are a central part of the Assessing Pupils' Progress (APP) approach to periodic assessment. Their main purpose is to exemplify Standards by giving guidance on accurate assessments and acting as a resource and reference point for teachers:

- on assessing pupils' work

- on diagnosing pupils' strengths and weaknesses

- for training and professional development purposes.

Each Standards File includes:

- examples of pupils' ongoing classroom work, which have been assessed to exemplify the APP approach and show National Standards

- commentary on the evidence at attainment target strand level, which leads to a summative judgement on the pupils' work

- the assessment guidelines sheet that records a profile of attainment across the different assessment focuses of ICT as well as a National Curriculum level judgement.

Pupils' work in the Standards Files

Each Standards File comprises a number of pieces of work from schools directly involved in the piloting of APP. In the Standards Files the level of annotation on the work presented is far more than a classroom teacher would be expected to record. The Standards Files have a large amount of annotation as they need to stand alone and the classroom teacher is not available to discuss what the evidence amounts to and what additionally they know about a pupil's work.

Background information about the context of the work has been kept to a minimum since each collection has been selected primarily to exemplify attainment at a particular National Curriculum level, rather than as an example of recommended curriculum practice. In most cases, the pupils' work in a file represents a sample of the pupils' output during the period. In each case, the criterion for the size of the collection is the same: how much is sufficient to support a teacher in making a level judgement against the attainment target?

National Standards exemplified

Each collection of pupil's work has been assessed using an assessment guidelines sheet. Three kinds of annotation or commentary may support assessment of the pupil's work.

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1. Annotation on an assessment guidelines sheet

At the end of each Standards File a completed assessment guidelines sheet shows how the pupil's work is assessed and provides information towards making a judgement of 'Low', 'Secure' or 'High' within a level.

ICT assessment guidelines: Level 6
Pupil name........................Pupil B........................

	AF1 – Planning, developing and evaluating	AF2 - Handling data, sequencing instructions and modelling	AF3 - Finding, using and communicating information
L6	Across a range of contexts and practical situations pupils: • **Plan and develop solutions to problems which show efficiency and integration of ICT tools and techniques** • Use criteria and feedback to improve the effectiveness and efficiency of solutions • Explore the impacts of the use of ICT in work, leisure and home. ☐	Across a range of contexts and practical situations pupils: • **Devise a data handling solution to test hypotheses that uses techniques to reduce input errors.** • **Create efficient sequences of instructions including the use of using subroutines** • Test predictions by varying rules in models and assess the validity of the conclusions. ☑	Across a range of contexts and practical situations pupils: • **Use complex lines of enquiry efficiently to interrogate information** • Explain choices when presenting information for different purposes and wider or remote audiences ☑
L5	Across a range of contexts and practical situations pupils: • Plan and develop structured solutions to problems which use a combination of ICT tools and techniques • **Use criteria to evaluate the quality of solutions, identifying improvements and refining their work** • **Identify benefits and limitations of using ICT both inside and outside school** ☑	Across a range of contexts and practical situations pupils: • Use logical and appropriate structures to organise and process data • Create precise and accurate sequences of instructions • Change variables within models and explain the impact ☐	Across a range of contexts and practical situations pupils: • Take account of accuracy and potential bias when searching for and selecting information • **Present information in a range of forms for specific purposes and familiar audiences** • Use ICT safely and responsibly ☐
BL	☐	☐	☐
IE	☐	☐	☐

Key: BL-Below Level   IE-Insufficient Evidence

Overall assessment (tick one box only)   Low 5 ☐   Secure 5 ☐   High 5 ☐   Low 6 ☑   Secure 6 ☐   High 6 ☐

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2. Page from a file

At the end of each piece of a pupil's work a commentary summarises what has been demonstrated across the AFs.

The National Strategies | Secondary
Assessing pupils' progress in ICT at Key Stage 3: Standards File Pupil B

Context
The teacher asked the class to design, implement and evaluate control systems for a new biome for the Eden Project, making sure to minimise its environmental impact, in line with the Eden Project's philosophy. Pupil B chose an 'underwater biome' as a new area for the project. Pupils produced 2D designs which they annotated to show the control systems. The class were asked to bring together all the work they had done in a presentation explaining the biome's design and control systems to tourists visiting the Eden Project.
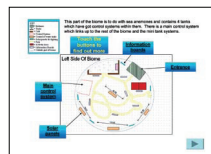
Teacher's Notes

AF1
Pupil B was able to independently plan a solution for a problem which was not familiar to him. He has integrated a range of ICT tools and techniques and his solution demonstrates some aspects of efficiency. He has evaluated and refined his presentation and used feedback from the control software to improve the effectiveness of his solution. Pupil B has identified a benefit of using ICT for a control system in a real-life setting.

AF2
Pupil B has constructed a sequence of instructions in a modular way using subroutines.
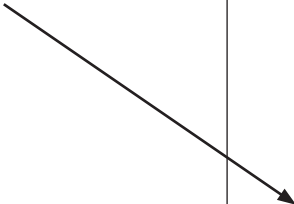
AF3
Pupil B has given sensible explanations of the choices made in communicating information about the control system to an unfamiliar and wider audience of tourists.

Assessment Commentary
Pupil B structured a control solution showing some aspects of efficiency. Although Pupil B has understood why the use of subroutines can be efficient, he has only called the subroutine once in the program and has not repeated them in controlling the other water tanks. Throughout the project he has demonstrated a clear understanding of the requirements of the problem and has recognised some of the benefits of using ICT outside school. He has shown a sense of audience and has explained the choices he has made about his presentation. Pupil B has not carried out a lengthy evaluation, but has thought about which aspects of his solution are efficient, and which are effective. He has not articulated any success criteria by which to judge the success of the project, although he has recognised that his control system needs to work as planned.

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3. Assessment summary

These consider all the evidence and provide an overall level judgement.

Assessment summary

AF1 Planning, developing and evaluating

Pupil B is able to plan and develop solutions independently which integrate ICT tools and techniques and demonstrate aspects of efficiency. He tests and evaluates the success and effectiveness of his solutions and uses feedback from peers and from running the control program to improve them. However his use of success criteria is limited and needs to be developed further. Pupil B is aware of benefits of using ICT control systems in a real life situation, but the work provides limited opportunity for exploring the wider impacts of the use of ICT in work, leisure and home. The evidence suggests he is working at low level 6 in AF1.

AF2 Handling data, sequencing instructions and modelling

Pupil B is beginning to think about efficiency when planning sequences of instructions and understands some of the benefits of using subroutines. He is able to devise a data handling solution to test hypotheses using a large data set and has begun to use techniques to reduce input errors.

The work does not provide opportunity for him to use ICT to test predictions using modelling.

The evidence places him at low level 6 in AF2.

AF3 Finding, using and communicating

Pupil B is able to use a variety of tools appropriately to collaborate and exchange information with a wide and remote audience, explaining some of his choices. He is able to use complex lines of enquiry to interrogate a large data set and find information efficiently in order to answer hypotheses. The evidence places him at low level 6.

Overall Assessment Judgement

Pupil B is making progress into level 6 but much of his work shows that he is not yet working at a secure level 6. He is able to plan and develop solutions independently which integrate ICT tools and techniques but he is only beginning to demonstrate aspects of efficiency. He understands the benefits of using subroutines when creating sequences of instructions, but doesn't always use them in an efficient way. Pupil B is able to use a data handling solution for testing hypotheses and has begun to use techniques to reduce input errors. He is able to use success criteria in a limited way, but needs to develop this further. In addition, he needs further opportunities to demonstrate use of modelling to test predictions and opportunities to explore the impact of ICT in work, leisure and home.

Available ICT Standards Files

The following Standards Files are available to download from the secondary section of the National Strategy website at www.standards.dcsf.gov.uk/nationalstrategies/

Overall level	Pupil
Level 3	D
Level 4	C
Level 5	A
Level 6	B
Level 7	F
Level 8	E

Using the Standards Files

The Standards Files enable classroom teachers to have a common understanding of different levels and the nature and demands of the AFs that underpin each one.

There are different ways of using the Standards Files:

- to standardise judgements, i.e. to ensure teachers' judgements are in line with National Standards before making assessments;

- as a reference when assessing your own pupils;

- to support moderation activity;

- to clarify what it means to make progress;

- to exemplify the APP approach.

Standardisation materials

To ensure that judgements made by teachers in your school are in line with national standards, standardisation training in school could use the materials in the following ways:

- each teacher assesses one of their own pupils, and agrees their level judgement with a colleague by comparing and contrasting the pupil's work with that of a Standards File pupil at that level

- teachers assess the work of one Standards File pupil using a training version with the references to level judgements removed, and then compare their judgements with those in the full Standards File

- copy one or two collections of work from their own pupils, without any annotation or commentary, and ask colleagues to identify pupils in the Standards Files to which each is closest in performance

Subject leaders and others running training sessions with the department could use selected pupil Standards Files, to illustrate how the principles that underpin the APP model of periodic assessment operate in practice, or to illustrate particular aspects of assessment. Discussion could be focused, for example on:

- attainment at a particular level in different year groups, or in a particular ICT assessment focus at different levels;

- the range of potential evidence, for example how much evidence of attainment for a particular AF is required to support a judgement;

- differences between evidence gathered from oral work and pupil annotation;

- whether it is harder to find evidence for some strands than others;

- identifying the next steps in teaching and learning for a particular pupil, or groups of pupils.

Reference

When ICT teachers are assessing their own pupils they can use the Standards Files for reference:

- as a benchmark when making periodic assessments;

- to compare the performance of pupils at a particular level with exemplars that have been assessed against National Standards;

- to check what constitutes sufficient evidence of attainment in a strand at a specific level;

- to refine judgement of what is typical of performance in adjacent levels, for example comparing two collections of work one on either side of a level borderline;

- to check what progression in a particular AF looks like.

Supporting in-school moderation

Moderation activity generally involves a group of teachers reviewing a sample of class teachers' initial assessments, reconciling any disagreements and agreeing a final judgement. The Standards Files are essential tools in this process of bringing differing views to agreement in an evidence-based way that is in line with National Standards. Disagreement can be resolved by recourse to the question: How does the pupil under discussion compare with pupil X or Y from the Standards Files?

Exemplifying the APP model

Subject leaders and others running training sessions could use selected Standards Files, to illustrate how the principles that underpin the APP model of periodic assessment operate in practice, or to illustrate particular aspects of assessment. Discussion could be focussed, for example, on:

- attainment at a particular level in different year groups, or in a particular AF at different levels;

- the range of potential evidence, for example how much evidence of attainment for a particular AF is required to support a judgement;

- differences between evidence gathered from oral work and writing;

- whether it is harder to find evidence for some AFs than others;

- identifying the next steps in teaching and learning for a particular pupil, or groups of pupils.

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