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KEY STAGE
2

YEARS
3–6

National Curriculum assessments

Science sampling arrangements

2012

**Standards and
Testing Agency**

An executive agency of the
Department for Education

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2012 Key Stage 2 *Science sampling arrangements*

PDF version ISBN: 978-1-4459-5418-9

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This publication is also available for download at www.education.gov.uk/ks2.

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2012 key dates

Monday 27 February 2012	Deadline for submitting applications for additional time and early opening
Friday 20 April 2012	Deadline for STA to inform schools of outcomes of additional time or early opening applications
From Tuesday 8 May 2012	Delivery of science sampling tests and stationery items to schools
Friday 18 May 2012	Science sampling test date
Friday 1 June 2012	Deadline for submitting the Headteacher's declaration form Deadline for special consideration applications
Friday 29 June 2012	Deadline for STA to inform schools of outcomes of special consideration applications
Thursday 12 July 2012	Results available to schools Scanned images of science sampling test scripts with item level marks available to schools Level threshold tables available

Introduction

What are the science sampling tests?

- Science sampling tests were introduced in 2010 to monitor national standards in science at the end of the Key Stage 2 programme of study.
- A national sample of 750 schools has been selected to participate in science sampling in 2012. This equates to around 25,000 children or five per cent of all eligible children.
- All children at participating schools and Academies (including Free Schools), who have completed the Key Stage 2 science programme of study, and who are working at level 3 or above in science, will take the tests.
- A list of participating schools will be published on the Department for Education's website in February 2012.
- Trained external markers will mark the test scripts.
- Children's results will be returned to schools, along with scanned images of their completed test scripts with item level marks.
- Outcomes of the science sampling tests will not be used for school or local authority level accountability purposes. As the purpose of science sampling is to monitor national standards in science and not for school accountability, a national reviews service will not be provided for 2012 Key Stage 2 science sampling tests marking.
- Schools must return individual children's results to parents.
- Schools must continue to report on children's attainment in science using teacher assessment.

The Department will report the outcomes of science sampling tests (for example the overall proportion of children who attained level 4 or above) at a national level only. The national outcomes for the 2011 science sampling tests are available at www.education.gov.uk/researchandstatistics/statistics.

What is the Science sampling arrangements?

The *Science sampling arrangements (SSA)* sets out statutory requirements and provides information and guidance for schools participating in the Key Stage 2 science sampling tests. These schools and Academies (including Free Schools) have been selected and designated by the Secretary of State¹ and are referred to as 'participating schools' in this document.

The term 'parent' is used in the 2012 SSA as defined in section 576 of the Education Act 1996 as:

- parents of a child;
- any person who is not a parent of a child but who has parental responsibility for

¹ See articles 5(2B) and 11 of the Education (National Curriculum) (Key Stage 2 Assessment Arrangements) (England) Order 2003, SI 2003/1038 (as amended by SI 2009/1585 and SI 2010/290).

the child; and

- any person who has care of the child.

Legal status of the SSA

The SSA contains provisions made pursuant to section 87(3) of the Education Act 2002 and article 11 of the Education (National Curriculum) (Key Stage 2 Assessment Arrangements) (England) Order 2003, SI 2003/1038 (as amended by SI 2009/1585 and SI 2010/290). Where the SSA gives effect to, or otherwise supplements, the provision made in the Order it has effect (on being published by the Secretary of State) as if made by the Order. The SSA also contains guidance and information that does not form part of the law.

Responsibilities

The SSA refers to, and sets out, the statutory responsibilities of schools participating in the science sampling tests. Academies (including Free Schools) are required to follow these arrangements, as set out in their funding agreements.

Headteachers

Headteachers of maintained schools selected to participate in science sampling are under a statutory duty to ensure that the assessment arrangements for the science sampling tests are implemented in their schools.

Headteachers must:

- ensure that teachers and other staff comply with the arrangements for the science sampling tests;
- ensure that all children take the tests if they are working at level 3 or above in science at the end of the Key Stage 2 programme of study;
- keep all science sampling test materials secure and treat them as confidential;
- ensure that test opening and administrative procedures are followed; and
- cooperate with any monitoring visits to the school by local authority representatives.

Local authorities

Local authorities are under a duty to ensure that participating schools administer the science sampling arrangements appropriately. Local authorities should ensure that schools and where appropriate; Academies (including Free Schools) understand and follow the statutory requirements. To do this, local authorities should consider:

- offering participating schools guidance in administering the science sampling tests; and
- including participating schools as part of the 10 per cent of schools they make monitoring visits to before, during and after the National Curriculum test period.

Academies (including Free Schools) in England

Where an Academy (or Free School) is selected to participate in the science sampling tests, and where it is a requirement of their funding agreement, Academies (including Free Schools) must ensure that they comply with the SSA.

Where the funding agreement for an Academy or Free School provides that it shall comply with guidance issued by the Secretary of State in relation to assessments and teacher assessments of children's performance, this SSA is that guidance and the Academy or Free School must comply with it.

Concerns and complaints

Concerns and complaints should be raised with STA by writing to the Stakeholder relations team at STA, 53–55 Butts Road, Earlsdon Park, Coventry, CV1 3BH, or by emailing assessments@education.gov.uk.

Where schools feel that their regulatory concerns have not been fully addressed by STA in line with the published procedures, enquiries and concerns can be sent to the Office of Qualifications and Examinations Regulation (Ofqual) at Spring Place, Coventry Business Park, Herald Avenue, Coventry CV5 6UB, or by emailing info@ofqual.gov.uk.

An overview of the science sampling tests

The 2012 Key Stage 2 science sampling tests will be held on Friday 18 May 2012.

The structure of the science sampling tests

There are two science sampling test papers:

- Test A
- Test B

Children are allowed 45 minutes for each test paper.

The tests will assess the Key Stage 2 programme of study, including scientific enquiry (Sc1). Children may be asked:

- to describe how an investigation could be carried out;
- what variables need to be controlled;
- what variables need to be measured;
- how the results are best presented;
- what the results show and whether they support a prediction; and
- to explain the outcome and whether the evidence collected is significant and reliable.

Teacher assessment will continue to be the only method of assessing aspects of scientific enquiry (Sc1) that involves practical skills, interpreting and evaluating children's own data.

Who are the science sampling tests for?

All children enrolled at participating schools or Academies (including Free Schools), who will have completed the Key Stage 2 programme of study in 2012 and who are judged by the headteacher to be working at level 3 or above in science, must participate in the tests. Most of the children taking the tests will be in Year 6 and will reach the age of 11 by the end of the school year.

Children with special educational needs

To enable children with special educational needs to access the tests, schools can:

- request modified versions of the science sampling tests; or
- use a wide range of access arrangements.

Access arrangement criteria for science sampling tests are in line with those for the Key Stage 2 English and mathematics National Curriculum tests. Details can be found in section 5 of the 2012 Key Stage 2 *Assessment and reporting arrangements (ARA)*, which was sent to

schools in November 2011, and is available on the Department's website at www.education.gov.uk/accessarrangements.

Children with English as an additional language

Children with English as an additional language (EAL) who normally work in the English language in the classroom should access the science sampling tests by reading and writing in English.

Where children normally use a combination of English and their first language in the classroom, schools should consider entering them for the science sampling tests and using available access arrangements (for example, additional time and translation). This should reflect normal classroom practice. For more information on access arrangements, see the ARA.

Children working below the level of the science sampling tests

Children who are assessed as working below level 3 in science and who are not expected to reach this level by May 2012 should not sit the tests. Children working below the level of the science sampling tests must be entered as 'B' (working below the level of the tests) on the attendance register in accordance with the instructions in the science sampling *Test administrators' guide*. This will be available to download from February 2012 at www.education.gov.uk/sciencesampling.

If the science sampling tests are administered to children who have been assessed as 'B', their completed test scripts must be sent for external marking. These children will be awarded levels based on their achievements in those tests. A child should be recorded as ✓ and not 'B' on the attendance register.

Children working at the level of the science sampling tests but who are unable to access them

Children who are working at the level of the science sampling tests but who are unable to access them should not take the tests. They should be entered as 'T' on the attendance register. Some examples are included below:

- Children with a physical or sensory disability.
- Children who have spent time in hospital towards the end of the Key Stage.
- Children who have been educated at home or excluded from school and need time to adjust to regular school life.
- Children who are experiencing or have recently experienced severe emotional problems, perhaps because of a family crisis.

If the science sampling tests are administered to children who have been assessed as 'T', their completed test scripts must be sent for external marking. These children will be awarded levels based on their achievements in those tests. A child should be recorded as ✓ and not 'T' on the attendance register.

Children whose level cannot be established

If a school does not have enough time before the science sampling tests to determine a child's level, they must be entered as 'T' on the attendance register and the child should not sit the tests. For example, this would apply to children who have recently arrived from a different education system.

If the science sampling tests are administered to children who have been assessed as 'T', their completed test scripts must be sent for external marking. These children will be awarded levels based on their achievements in those tests. A child should be recorded as ✓ and not 'T' on the attendance register.

What if parents disagree with the school's decision about whether their child should participate in the science sampling tests?

Some parents may ask a headteacher not to enter their child for the science sampling tests. Schools should not agree to this simply because parents are opposed to the science sampling tests or feel that their child would find the tests stressful.

Parents may also ask a headteacher to enter their child for the science sampling test when the school has decided this is not appropriate. Headteachers should explain the school's decision to parents. The headteacher's decision regarding participation in the science sampling tests is final.

Test orders and pupil registration for the science sampling tests

Schools are not required to place a test order for science sampling test materials. STA will calculate the science sampling test materials each school requires based on their English and mathematics National Curriculum test orders.

Modified versions of the test papers will be available. Schools that have ordered modified versions of English and mathematics National Curriculum tests will be contacted directly about their requirements for modified science sampling test papers by the end of March 2012.

If schools have not been contacted by Friday 30 March 2012 and have any questions about modified versions of the tests, they should contact STA's National Curriculum assessments helpline on 0300 303 3013.

Schools do not need to complete pupil registration for the science sampling tests. Pupil registration will be based on the data submitted for the Key Stage 2 National Curriculum tests.

Marking

Trained external markers will mark the science sampling test scripts using a set mark scheme. Marker performance is checked at the start of the marking process and then at regular intervals.

If markers suspect that the science sampling test scripts do not represent a child's own independent work, or if they find evidence of administrative irregularities, they will contact STA to investigate their concerns.

As the purpose of science sampling is to monitor national standards in science and not for school accountability, a national reviews service will not be provided for 2012 Key Stage 2 science sampling tests marking.

Access arrangements

Access arrangements are adjustments that schools must consider prior to the tests and should be based primarily on normal classroom practice for children with particular needs. The access arrangements must never provide an unfair advantage, the support given must not change the test questions, and the answers must be the child's own.

Access arrangements policies, procedures and criteria for the science sampling tests are in line with those for Key Stage 2 English and mathematics National Curriculum tests. When making an application on the NCA tools website, schools should make sure they have ticked the appropriate boxes to indicate their access arrangement requirements for specific subject(s). Full details can be found in section 5 of the 2012 Key Stage 2 ARA which was sent to schools in November 2011. Copies of the ARA can also be downloaded from the Department's website at www.education.gov.uk/assessments.

Any queries about access arrangements after Monday 27 February 2012 should be raised via the Message us section of NCA tools.

Receiving and storing science sampling test materials

Delivery of science sampling test materials

Delivery of the science sampling test materials will take place from Tuesday 8 May 2012. The stationery pack and attendance register will be included in the same delivery.

Standard and modified versions of the science sampling tests will be delivered together.

If a school has not received its science sampling test materials by 5pm on Friday 11 May 2012, they should contact the National Curriculum assessments helpline on 0300 303 3013.

Storing science sampling test materials

Once the delivery has been checked against the delivery note, schools should reseal the box containing the science sampling test materials and store it in a secure, locked place. Modified science sampling test materials must also be stored securely until they can be opened. Science sampling test materials must not be opened until the date specified on the front of each item.

It is the headteacher's duty to ensure that test materials are kept secure from the time they are delivered to the school to the time they are sent for external marking.

Please contact STA if:

- a delivery is incomplete, or contains more materials than shown on the delivery note;
- anyone suspects that there might have been a breach of security with the test materials; or
- any of the test packs are unsealed or damaged on arrival (you may be asked to send a photograph of the damaged packages to STA).

Further advice on storing test materials securely will be made available on the Department's website at www.education.gov.uk/ks2 from March 2012.

Preparing for the science sampling tests

The 2012 Key Stage 2 science sampling *Test administrators' guide* (SSTAG) contains detailed information on administering the science sampling tests. This section of the SSA should be read in conjunction with the SSTAG to ensure the administration of the science sampling tests is consistent for all participating schools. The SSTAG will be available to download from February 2012 at www.education.gov.uk/sciencesampling and copies will be sent to schools in May 2012.

Headteachers should ensure test administrators understand all of the procedures involved in administering the tests and that queries are resolved in advance to avoid any action that may result in accusations of unfairly helping children, as this could lead to schools being investigated for maladministration.

When should the tests be taken?

Children must take the science sampling tests on Friday 18 May 2012, but schools are responsible for deciding the start time of the tests. Both test papers may be taken in either the morning or the afternoon session, or split with one paper taken in each session. Test A must be taken before Test B.

All children within the school must take each paper at the same time, unless unavoidable practical difficulties make this impossible.

Where a school needs to administer a test in two separate sittings, no child should have the opportunity to communicate with other children who have already taken the test. The second sitting must follow on immediately from the first.

Changes to the statutory test timetable

Lord Bew's review recommended that children who are absent for a National Curriculum test (for a valid reason) can take the test up to a week after the published test date. This is being trialled in 2012.

With STA's permission, the science sampling tests may be rescheduled for up to a week (five school days) after the scheduled date. Under no circumstances may the science sampling tests be taken before Friday 18 May 2012.

Schools may also vary the timetable so that individual children can take a test on the scheduled date, but separately to the rest of the cohort, between 7am and 7pm. Schools must notify STA of these changes to the timetable.

Applications for, and notifications of, changes to the statutory test timetable must be made using the appropriate form on the Access arrangements section of NCA tools at www.education.gov.uk/ncatools. Further information on valid reasons for a change to the test timetable is available on the Department's website at www.education.gov.uk/ks2.

Monitoring visits by local authorities

Local authorities have a statutory duty to carry out monitoring visits to at least 10 per cent of schools in their authority before, during and after the National Curriculum test period and should consider including schools participating in science sampling as part of this.

Administering the science sampling tests

Test administrators must follow the instructions set out in the 2012 SSTAG which will be available to download from February 2012 at www.education.gov.uk/sciencesampling.

Opening the science sampling test packs

Science sampling test packs should only be opened in the test room when the test is due to start. In exceptional circumstances the test packs may need to be opened earlier for administrative purposes (for example because they need to be delivered to different school sites). In such circumstances, they may be opened up to one hour before the test is due to start. If one hour is not sufficient for making necessary arrangements, schools must apply for permission for early opening via the Access arrangements section of the NCA tools website. Information on when modified test materials can be opened is printed on the front sheet of each pack.

Once the test pack has been opened, teachers and test administrators must not:

- discuss the content of the test papers with anyone; or
- use question-specific information to prepare children for the test.

After each test

Attendance register

Schools must complete the attendance register for the science sampling tests. Details on how to complete the attendance register will be included in the SSTAG which will be available to download from February 2012 at www.education.gov.uk/sciencesampling.

Headteacher's declaration form

It is the headteacher's statutory duty to ensure the implementation of the National Curriculum tests in their school, and to adhere to the statutory 2012 Key Stage 2 ARA and where selected to participate, the SSA. Headteachers must ensure that their school fully complies with the statutory arrangements for assessing children at the end of Key Stage 2 and where selected to participate, the science sampling tests.

The 2012 Key Stage 2 Headteacher's declaration form covers the level 3-5 National Curriculum tests, and where appropriate, the science sampling and level 6 tests. It is statutory and must be completed by the headteacher, or another authorised member of staff, after all of the scripts, including scripts for level 3-5 National Curriculum tests and where applicable the level 6 tests, have been sent for external marking. Submission of the form confirms the tests have been administered in accordance with the statutory requirements set out in the SSA and that the security and confidentiality of the tests have been maintained.

The Key Stage 2 Headteacher's declaration form is available in the Pupil registration section of NCA tools at www.education.gov.uk/nca_tools.

Collation and security of science sampling test scripts

At the end of each test, the completed science sampling test scripts must be returned immediately to the headteacher or senior member of staff who is responsible for the tests and must be sorted into the order they appear on the attendance register. The test scripts must not be looked at, annotated or reviewed in any way (unless it is necessary to make a transcript). Teachers must not keep or photocopy the test scripts for any reason.

The headteacher must ensure the test scripts are stored securely in the packaging provided and keep them in a secure place (such as a locked cupboard or storeroom) until they are collected. All notification forms or other relevant paperwork must be attached to the test scripts.

Schools should consider that test administrators who collate the completed test scripts on their own are more vulnerable to allegations of maladministration as they do not have another adult to verify the collation and storage procedures.

Collection of science sampling test scripts

Schools should have all available science sampling test scripts ready for collection from 9am on Monday 21 May 2012. Further information and guidance on the packaging and dispatch of science sampling test scripts is provided in the SSTAG which will be available to download from February 2012 at www.education.gov.uk/sciencesampling.

Reporting and using the outcomes of the science sampling tests

Schools will be provided with their children's results, but the Department will not be reporting school or child level information more widely. Results will not be included in RAISEonline or published at school level in the Primary School Performance Tables. The Department will publish national results showing the proportion of children at the end of Key Stage 2 reaching the expected standard or above in science (level 4 or above).

Individual children's results and scans of children's completed test scripts will be made available to schools as follows:

- Thursday 12 July: individual children's test results published on the NCA tools website. Tests, mark scheme, mark scheme amendments (for modified test papers) and level thresholds published on the Department's website at www.education.gov.uk/sciencesampling.
- Thursday 12 July: scans of children's marked test scripts available to view online.
- Thursday 12 July - Monday 16 July: marked modified scripts delivered to schools.

As the purpose of science sampling is to monitor national standards in science and not for school accountability, a national reviews service will not be provided for 2012 Key Stage 2 science sampling tests marking.

Teacher assessment

Reporting of teacher assessment for science at the end of Key Stage 2 remains a statutory requirement. A detailed description of the process for this reporting can be found in the ARA available at www.education.gov.uk/assessments.

Schools must provide teacher assessment as feedback to parents on their child's attainment in science. Schools and Academies (including Free Schools) administering the science sampling tests must also report children's results to parents. Schools can decide whether they wish to use the results for planning teaching and learning.

About this publication

Who is it for?

This guide is for headteachers, test administrators, Key Stage 2 science subject leaders and Key Stage 2 assessment and special educational needs coordinators. It is also available for local authorities.

What is it for?

This booklet sets out statutory requirements and provides information and guidance for schools participating in Key Stage 2 science sampling in 2012.

Related materials

2012 Key Stage 2 <i>Assessment and reporting arrangements</i>	STA/12/5571
2012 Key Stage 2 science sampling <i>Test administrators' guide</i>	STA/12/5787
2012 Key Stage 2 science sampling <i>Modified subject-specific guidance for pupils with visual impairment</i>	STA/12/5638
2012 Key Stage 2 science sampling <i>Modified subject-specific guidance for pupils with hearing impairment</i>	STA/12/5644

For more copies

Printed copies of this document are not available. The Key Stage 2 *Science sampling arrangements* can be accessed on the STA Orderline at <http://orderline.education.gov.uk>. Search using the PDF product code reference STA/12/5786/p.