



# Principles for Key Stage 2 assessment of science

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Key Stage 2 assessment of science is currently undergoing a series of changes. In 2010, a small cohort of students will be taking part in a national sampling exercise. In addition, all schools are required to report teacher assessments.

The national sampling will develop over the next few years and SCORE has been considering the issues surrounding sampling and teacher assessment. The principles outlined below are intended to inform discussions on the future of Key Stage 2 assessment of science.

### General comments on assessment and accountability

- SCORE is concerned that there must be greater clarity regarding accountability at all levels regarding science at Key Stage 2. There are several accountability mechanisms, each with a different audience, and the relationships between them needs further clarification:
  - National sampling – of the system – for the DCSF
  - Teacher assessment – of the pupil – for pupils, parents and carers, and school governors
  - Self evaluation – of the school – for school community and external community
  - Ofsted – of the school – for the DCSF, local authority and Governors
- There are also many, related, assessment mechanisms currently in use in schools. The roles of these mechanisms and the relationships between them, needs further clarification for schools. There also needs to be a clear relationship between formative assessment, summative assessment, teaching and learning. Assessment mechanisms include:
  - Summative teacher assessment
  - Formative assessment (eg Assessment for Learning)
  - Self assessment
  - Assessing Pupils Progress
  - National Sampling
  - Single Level Tests
- The criteria used for assessment need to be considered. APP and the level descriptors use different criteria.

## Principles for reported teacher assessment

We refer to the 'reported teacher assessment' at the end of Y6 as TA throughout.

- TA should reflect the aspirations of the curriculum
- TA should cover the whole of the pupil's experience (knowledge, skills and understanding): validity is of greatest importance
- TA should arise from existing good teaching practice: pupils' learning should remain paramount and TA should not become an end in itself or interrupt the learning experiences of pupils
- TA should be based on a range of information: not limited to one task on one day
- TA criteria should be developed: these would be developed from the level descriptions and indicate progression
- TA criteria should be simple, not complex: there should be a small number of criteria
- TA must be manageable: the elements that teachers use to contribute to the TA should fit into a normal teaching programme and not require additional time
- TA support materials should exemplify the use of practical and other enquiry activities in existing resources: there is no need to create new tasks
- Exemplar materials should cover a (limited) range of content and a range of styles: there should be more than one example per topic
- Exemplar materials and professional development should be supportive of teachers: they should build their confidence and develop their competence
- Reported teacher assessment is summative: it will be informed by existing formative assessment
- The reporting of the TA should take place at an appropriate time in the school year: chosen such that the school is able to report appropriately to parents and governors
- TA will be formally reported: the reporting should be of one overall level
- To increase reliability, school-based moderation and/or moderation within school clusters should take place.

## Principles for national sampling

*A pipette extracting information from the heart of the system*

- The national sampling must support the aims of the curriculum: not undermine them
- The national sampling must operate by an ethical code
- It must be an anonymous sample: at both the school and pupil level
- Sampling should be 'low stakes' testing
- No pupil will complete every assessment item: a wider range of assessment items can be used than at present
- Whole school cohorts do not need to be assessed: there is no technical advantage to doing this and little logistical advantage
- Matrix sampling may then convince schools that the data will not be used against them: however thought needs to be given regarding management within schools and with parents
- It must be clear to teachers and pupils what they are being assessed against
- Teachers should not be able to teach to the test: schools should receive limited notice and pupils undertake a small number of 'rich' tasks.