

National Curriculum

Assessment for the National Curriculum has two components:

Teacher Assessment (TA)

At the time of writing, no guidance has been issued on the administration or recording of TA. However, we can assume that when guidance does appear it will not tell us exactly what to do. The guidance will indicate factors we should take into account.

Standard Assessment Tasks (SATs)

There will be cross-curricular SATs as well as specifically mathematical ones.

It is clear from the TGAT report that Teacher Assessment has a very important part to play:

'... teachers' own assessments have an important part to play, attention must be given to developing the methods and skills that teachers will need to make these assessments. The externally-prescribed national assessment tests and tasks will not be adequate to assess pupils' achievement of all of the attainment targets.'

p.6, *National Curriculum Task Group on Assessment and Testing A Report*, DES, London, 1988.

The assessment will be based on the Attainment Targets and their associated levels of attainment.

Teacher Assessments will cover all the levels of attainment in all Attainment Targets. SATs will cover all or almost all the levels of attainment in all the Attainment Targets.

*** Exercise

Look at the following activities:

<i>Dotty Triangles</i>	(p.86)
<i>Lift Regulations</i>	(p.92)
<i>Star Signs</i>	(p.109)

For each of these activities, select from the Attainment Targets of the National Curriculum all the statements which you think are relevant, ie. could possibly be demonstrated by a student working on the task.

Here is a list of ATs and levels in which relevant statements occur:

<i>Dotty Triangles</i> (p.86)	AT 1 levels 3-10 AT 5 levels 3-7 AT 6 level 10 AT 8 level 4
<i>Lift Regulations</i> (p.92)	AT 1 levels 4-10 AT 2 levels 4 and 6 AT 3 levels 4, 5, and 7 AT 4 levels 4-10 AT 8 levels 4-7, and 10
<i>Star Signs</i> (p.109)	AT 9 all levels AT 12 levels 2-9 AT 13 levels 1-4

When we are presented with an actual piece of student's work it can be difficult to decide whether a particular part of the National Curriculum has been satisfied or not. The statements of the National Curriculum leave scope for interpretation and these interpretations may vary from teacher to teacher. It is important that you arrive at agreed interpretations within your department. This exercise will begin the process of internal moderation.

***** Exercise**

D

Select a piece of student work rich in mathematical content.

Using the levels of attainment of the National Curriculum, list the mathematics demonstrated in the work.

Discuss the similarities and differences in your lists and come to an agreed list.

Repeat this exercise as often as you feel is necessary.

GCSE Coursework

Everything that is said in this section is relevant to the assessment of GCSE coursework.

One of the fundamental principles of GCSE is differentiated assessment. This enables candidates across the full range of attainment to show what they can do. In most Mathematics GCSEs to date, differentiation is achieved by setting different questions for students of different levels of attainment. However, it is possible to set a single task which will enable candidates across the full range of attainment to demonstrate their skills. These are the 'open' tasks of GCSE coursework, which may be used as a model for SATs.

Methods of assessing these tasks are broadly similar to the methods described in the previous chapter.

It is important to select a GCSE Syllabus compatible with your methods and teaching. Most of the five examination groups offer more than one mathematics syllabus. They differ in the proportions of coursework and examinations, the type of coursework task and the way the tasks are to be assessed.

Examples of assessment schemes for coursework tasks are given in *Chapter 8*.

Summary of GCSEs for 1991

LEAG A and B

Level X: E F G
Level Y: C D E F
Level Z: A B C D

Syllabus A

2 written papers 80%
Mental/aural test 5%
2 tasks (1 extended) 15%

Syllabus B

2 written papers 50%
Mental/aural test 5%
5 tasks (2 extended) 45%

1. The mental/aural test is marked by the teacher, using a LEAG mark scheme.
2. Tasks may be those set by LEAG, or by the centre, or a mixture.

Marking tasks is done by ranking the candidates, determining grade boundaries from grade descriptions for F,C and A, then awarding a mark from a range given for the grade.

MEG

Foundation: E F G
Intermediate: C D E F
Higher: A B C D

2 written papers 70%
Mental test 6%
3 tasks (1 extended) 24%

1. The mental test is marked by the teacher, using a MEG mark scheme.
2. Tasks are not pre-set, but must be an investigation and two of:
 - Practical Geometry
 - Statistics/Probability
 - Applications

Marking the tasks is done by awarding a mark out of 4 for each of: overall design and strategy; mathematical content; accuracy; clarity of argument and presentation; and oral skills. For each of these, descriptors are given for 0, 2 and 4.

NEA A and B

Level P: E F G
Level Q: C D E F
Level R: A B C D

2 written papers 75%
Coursework 25%

1. There is no separate aural component.
2. No tasks or numbers of tasks are pre-determined.

Marking the tests is done by awarding a mark out of 8 for each of:

- Understanding and responding to task
- Reasoning and making deductions
- Working on a task
- Using equipment
- Estimating and making mental calculations
- Communication

For each of these, descriptors are given for 0, 3, 6 and 8.

SEG A and B

Level 1: E F G
 Level 2: C D E F
 Level 3: A B C D

<i>Syllabus A</i>		
2 written papers		50%
Aural		10%
3 tasks (1 extended)		40%

<i>Syllabus B</i>		
2 written papers		70%
Aural		10%
Unspecified (1 extended)		20%

1. The mental test is marked by the teacher, using an SEG mark scheme.
2. No tasks or number of tasks are pre-determined.

Marking the tasks is by awarding a grade using descriptors to each of:

- Comprehension of task
- Carrying out the task
- Planning
- Communication

The overall grade which ‘best describes the standard of work’ is then awarded.

SMILE

Level 1: D E F G
 Level 2: C D E F
 Level 3: A B C D

<i>Level 1 and 2</i>		
1 written paper		30%
1 extended task		20%
Coursework		50%

<i>Level 3</i>		
2 written papers		70/140
1 extended task		20/140
Coursework		50/140

SMILE is a levelled task based scheme, the coursework mark is based on the levels of the last 50 tasks successfully completed.

SMP (LEAG)

2 written papers		80%
Aural tests		5%
2 tasks (1 extended)		15%

1. The mental/aural test is marked by the teacher, using a LEAG scheme.
2. Tasks may either be those set by LEAG, or by the centre, or a mixture.

Marking the tasks is done by the same method as LEAG A and B.

SMP (11-16) (MEG)

2 written papers		66.6%
Aural tests		5%
Coursework		28.3%

1. The mental/aural test is marked by the teacher, using a LEAG scheme.
2. Tasks may either be those set by LEAG, plus one open-ended task, or two open-ended tasks.

Marking the tasks is done by awarding grades to each of a long list of processes under the broad headings:

- Identifying
- Reviewing
- Implementing

Descriptors for grades F,C and A are given in each case. The teacher decides whether some of the processes don’t apply to, or have a particularly heavy weighting for, a particular task, and then uses a ‘line of best fit method with judgement’.