

RSD Numeracy Policy 2013

Definition

Numeracy is the ability to apply appropriate mathematical skills and knowledge in familiar and unfamiliar contexts and in a range of settings throughout life, including the workplace. It involves the development of:

- a) an understanding of key mathematical concepts and their interconnectedness;
- b) appropriate reasoning and problem-solving skills;
- c) the proficient and appropriate use of methods and procedures (formal and informal, mental and written); and
- d) active participation in the exploration of mathematical ideas and models.

(DENI, Count, Read: Succeed)

Rationale

- Children come to school with very different mathematical experiences, capabilities and skills so it is important that all teachers use a child's experiences/skills in order to develop and improve their capabilities.
- Numeracy is a key life skill and, as such must be a core feature of the whole school curriculum.
- Proficiency in numeracy is developed in different ways. It can be in the form of:
 - mathematical comprehension shown when speaking, listening, reading or writing.
 - formal methods through the teaching of Mathematics.
 - development within a variety of curricular contexts by meaningful and relevant activities, both in school and at home.
- It is important that a coherent and consistent approach towards numeracy is adopted across the full range of subjects.

Aims

- 1) To promote the development of numeracy across all areas of the curriculum.
- 2) To equip every pupil with the numeracy skills which are required for the full range of activities across all areas of the curriculum and in real life situations.
- 3) To help pupils see the mathematical links across the curriculum and to apply their knowledge and skills in a variety of contexts.
- 4) To present numeracy as an experience from which pupils derive pleasure and enjoyment, and so promoting a positive attitude to mathematical learning.
- 5) To enable every pupil to become more confident and competent in the written and oral communication of numerical information.
- 6) To prepare pupils for situations in adult life where numeracy is an integral part of the activity so that they can make informed and responsible choices and decisions.
- 7) To address any underachievement in numeracy.
- 8) To ensure appropriate use of homework in developing numeracy and to encourage the involvement of parents.

Roles and Responsibilities:

- 1) Every member of staff has a responsibility to exploit the opportunities within their subject for raising standards of numeracy.
- 2) Heads of Department have overall responsibility for the promotion of numeracy within their subject area, together with any necessary liaison at inter-departmental level.
- 3) The Head of the Mathematics Department is responsible for co-ordinating the development of numeracy across the curriculum and offering support where necessary.

- 4) The Mathematics Department will provide the pupils with the opportunity to gain the 'Knowledge and Understanding' required and also the assessment of the cross curricular skill of Using Mathematics in Year 10. Other departments will share responsibilities for this assessment of Using Mathematics in Years 8 and 9.

Assessment, Monitoring and Review

- 1) Pupils will take CAT ability tests in the Christmas term of years 8 and 11 along with a PIM test in the summer term of Year 8
- 2) Individual pupil progress in numeracy at Key Stage 3 is monitored and evaluated through the cross curricular skill of Using Mathematics. The 'Knowledge and Understanding' is mainly assessed through the normal ongoing common assessments in the Mathematics department, school examinations and CAT and PIM data. The 'Requirements', while assessable in some normal class work, are only really seen fully during a suitably chosen task to demonstrate Using Mathematics. These take place in Mathematics and other subjects.
- 3) Pupils' Levels of Progression in Using Mathematics at Key Stage 3 is reported to parents in the major report at the end of the year and progress in Using Mathematics is reported by other departments.
- 4) At Key Stage 4 numeracy is monitored and evaluated through the normal school assessment tools of common assessments, school examinations, CAT and PIM data and external examination results. While this is taking place mainly in the Mathematics department other departments are still encouraged to take any opportunity that arises to promote the positive use of numeracy in their subject and the wider world.
- 5) As the current assessment situation at Key Stage 3 is not yet finalised and is changing in format from year to year the policy will need reviewed on a regular basis.

INSET

- Members of the Mathematics Department attended CCEA training in November 2012.
- The Head of Mathematics is currently the Principal Moderator for Using Mathematics at KS3 and so all departments can call on him for the most up to date requirements and developments.

Using Mathematics Tasks

- The school has received CCEA approval for the following five Using Mathematics tasks;
 - 'Operation Rescue' for Levels 5, 6 and 7
 - 'Charity Badges' for Levels 6 and 7
 - 'A New Car' for Levels 6 and 7
 - 'Height and Arm Span' for Levels 6 and 7
 - 'Height and Shoe Size' for Levels 4 and 5
- There are also an increasing number of exemplar tasks produced by CCEA which can be used. For example 'Picture Framing' for Levels 4 and 5.

Competition Involvement

- The Year 9 pupils take part in the Junior UK Mathematical Challenge annually in May with the certificates being presented in main school assembly. The Gold Certificate winners are represented with their certificate at Junior Prize Distribution and the "Best in School" also receives the Tyrone Crystal Perpetual trophy.
- A joint team of Year 9 and Year 10 pupils (2 from each) take part in the Junior UK Mathematical Team Challenge.

Community Involvement

- Where feasible, groups of Primary School children will be invited into RSD to take part in numeracy activities

Departments contributing to the assessment and reporting of Using Mathematics

Cross Curricular Skill	Year 8	Year 9	Year 10
Using Mathematics	Gg/Sc*	Pe/Dt*	Ma*

* Responsible for reporting

Current School Performance and Targets

Key Stage 3

KS3 Levels for Year 10 RSD pupils in Mathematics

KS3 %	2007/08	2008/09	SAT	SAT	2011/12	Av
			2009/10	2010/11		
Maths L5	1	3.2	10.5	11	10.9	7.3
Maths L6+	99	96.8	87.3	88	89.1	92.0

KS3 Levels for Year 10 RSD pupils in Using Maths for 2013 and targets for 2014

	2013	2014 Target
% Level 4	2.9	
% Level 5	39.0	40
% Level 6	34.3	35
% Level 7	22.9	25
Cum % Level 4	2.9	
Cum% Level 5	41.9	40
Cum % Level 6	76.2	75
Cum % Level 7	99.0	100

Key Stage 4

GCSE %	Actual 2009	Actual 2010	Actual 2011	Actual 2012	Actual 2013	Average 2009 - 2013	Target 2014
Grades A*-C	100	99	100	97	98	98.8	96.8