THE COTSWOLD SCHOOL – POLICY DOCUMENT

Policy:	**Numeracy Policy**
Policy Ref:	**CSP43**
Version Number:	**3.0**
Date:	**September 2018**
Review Date:	**September 2021**
Authorised by:	**Governing Body**
Updated by:	**Mrs H Moyne**

Mission Statement

The Cotswold School is committed to raising the standards of numeracy of all its students; we want our pupils to be confident and capable in the use of numeracy to support their learning in all areas of the curriculum and to acquire the skills necessary to help achieve success in further education, employment and adult life.

Aims

- To develop, maintain and improve standards in numeracy across the school;
- to ensure all students and staff have a positive attitude to the use of numeracy across the curriculum;
- to ensure consistency of practice including methods, vocabulary and notation;
- to recognise the fundamental importance of numeracy to the learning process;
- to improve the quality of, and access to, numeracy across the curriculum for students of all abilities;
- to assist the transfer of pupils' knowledge, skills and understanding between subjects.

Definition of Numeracy

Numeracy is more than the ability to do basic arithmetic. It involves:

- developing confidence and competence with numbers and measures;
- understanding of the number system and uses of mathematical techniques;
- developing an inclination and the ability to solve quantitative or spatial problems in a range of contexts;

- understanding methods of data collection and presentation of results in techniques of graphs, diagrams, charts and tables.

Consistency of Practice

Teachers of mathematics should:

- be aware of the mathematical techniques used in other subjects and provide assistance and advice to other departments, so that a correct and consistent approach is used in all subjects;

- provide information to other subject teachers on appropriate expectations of students and difficulties likely to be experienced in various age and ability groups;

- through liaison with other teachers, attempt to ensure that students have appropriate numeracy skills by the time they are needed for work in other subject areas;

- seek opportunities to use topics and questions from other subjects in mathematics lessons.

Teachers of subjects other than mathematics should:

- ensure that they are familiar with correct mathematical language, notation, conventions and techniques, relating to their own subject, and encourage students to use these correctly;

- be aware of appropriate expectations of students and difficulties that might be experienced with numeracy skills;

- provide information for mathematics teachers on the stage at which specific numeracy skills will be required for particular groups;

- try to provide resources for mathematics teachers to enable them to use examples of applications of numeracy relating to other subjects in mathematics lessons.

In line with this, the mathematics department aims to help students appreciate the importance of mathematics in their lives by making these links explicit.

Areas of Collaboration:

Implementation

All staff should:

- take account of the numeracy policy when planning lessons;
- use and explain mathematical vocabulary where it enhances pupils' knowledge, skill and understanding;
- encourage the use of mental calculation where appropriate;
- be aware, and consult with the mathematics department, if pupils may not have yet covered skills in their mathematics curriculum;
- recognise that pupils may employ alternative strategies in solving mathematical problems;
- ensure that in other subjects there is consistent use of and linkage to mathematical topics.
- 'use every relevant subject to develop pupils' mathematical fluency'. **(The national curriculum in England - Framework document - page 10 - July 2014)**
- 'develop pupils' numeracy and mathematical reasoning in all subjects so that they understand and appreciate the importance of mathematics'. **(The national curriculum in England - Framework document - page 10 - July 2014)**

Vocabulary

The following are all important aspects of helping pupils with the technical vocabulary of mathematics:

- Using a variety of words that have the same meaning e.g. add, plus, sum
- Encouraging pupils to be less dependent on simple words e.g. exposing them to the word multiply as a replacement for times
- Discussion about words that have different meanings in mathematics from everyday life e.g. take away, volume, product etc
- Highlighting word sources e.g. 'milli' means one thousandth, so that pupils can use them to help remember meanings. This applies to both prefixes and suffixes to words.

Pupils should become confident that they know what a word means so that they can follow the instructions in a given question or interpret a mathematical problem. The instant recall of vocabulary and meanings can be improved through activities in starters and plenaries.

The Role and Use of Calculators

The Cotswold school expects all pupils to bring their own scientific calculator to lessons when required.

In deciding when pupils use a calculator in lessons we should ensure that:

- pupils' first resort should be mental methods;
- pupils have sufficient understanding of the calculation to decide the most appropriate method: mental, pencil and paper or calculator;
- pupils have the technical skills required to use the basic facilities of a calculator constructively and efficiently, the order in which to use keys, how to enter numbers as money, measures, fractions, etc.;
- pupils understand the four arithmetical operations and recognise which to use to solve a particular problem;
- when using a calculator, pupils are aware of the processes required and are able to say whether their answer is reasonable;
- pupils can interpret the calculator display in context (e.g. 5.3 is £5.30 in money calculations);
- we help pupils, where necessary, to use the correct order of operations – especially in multi-step calculations, such as (3.2 - 1.65) x (15.6 - 5.77).

Pupils should be encouraged to work without calculators where possible.

Where use of calculators is necessary pupils should be able to make use of them in an efficient and accurate way.

Actions to Develop and Promote Numeracy

To ensure a consistent approach to mathematical and numeracy problems:

- Heads of department are to ensure that the School Numeracy Coordinator is fully aware of their subject's requirements for numeracy.
- Departments to continually review schemes of work to ensure numeracy opportunities have been identified.
- Details of all mathematical procedures with which the pupils are familiar are available to staff. (Appendix I)
- Staff training on numeracy is available in school.
- All classrooms to have a 'Maths Mat' as a resource for pupils.

To promote numeracy across the school:

- School Numeracy Coordinator to promote numeracy through monthly school competitions.
- One day in the school calendar will be a designated 'Numeracy Day' in which a whole school emphasis will be put on numeracy with activities and guests to inspire pupils.

Monitoring and Evaluation

- Lesson observations to note the role and use of numeracy.
- Numeracy opportunities to be identified in lesson plans.

Involvement of Parents/Governors

- Numeracy support booklet for year 7 parents.
- Parents to support pupils' use of MyMaths.
- School governors to be kept up to date with numeracy developments.

This policy is written and administered with due regard to our duty and commitment as a school:

_____ (*08 - 10 -2018*)
ratified by Governors and
signed as such by The Chair of Governors