

Sydenham School Numeracy Policy

MATHS



COUNTS



Diagram from National Numeracy Website.

Whole School Numeracy Policy

1.0 Rationale

Numeracy complements literacy and is sometimes called 'mathematical literacy'; both skills are needed in order to function fully in modern life. Being numerate means having the confidence and skill to use numbers and mathematical approaches in all aspects of life - at work, in practical everyday activities at home and beyond: as consumers managing our finances; as parents helping our children learn; as patients making sense of health information and as citizens understanding the world about us.

2.0 Primary objectives of this policy

2.1 Develop confidence of all teachers to understand:

- Their role in developing students' numeracy across the curriculum
- Common mathematical vocabulary and techniques, and how to teach these

2.2 We need to:

- Make sure that students can transfer skills and knowledge to new situations
- Make explicit for students the numeracy skills used across the curriculum
- Ensure students are able to compare and contrast different calculation techniques

3.0 Actions

3.1 We will, across the school:

- Use the slogan "Maths Counts and It Counts to Say So" to make sure that all staff are actively giving out positive messages about mathematics
- Build weekly numeracy activities into the KS3 pastoral program so that students develop fluency
- Regularly share, with all staff, best practice to promote numeracy development
- Monitor and develop policy and practice with an inter-departmental working party

3.2 How teachers can support the development of numeracy vocabulary in the classroom:

- Discuss with student words that have different meanings in Mathematics from everyday life e.g. take away, volume, product, similar etc.
- Highlight and explain the difference between "of" and "off".
- When using phrases such as "at least" or "at most" check students understand what these mean in context
- Highlighting word sources e.g. **quad** means **4**, **lateral** means **side**, **adjacent** means **next to** so that students can use them to help remember meanings.
- Encourage students to be less dependent on simple words e.g. exposing them to the word *multiply* as a replacement for *times*
- Using the term "**negative**" rather than "**minus**" to describe numbers less than zero (eg. with temperatures, -3°C , we say, negative three degrees Celsius).

4.0 Vocabulary

Students should become confident that they know what a word means so that they can follow the instructions or interpret a mathematical problem. For example, a pupil reading a question including the word *perimeter* should immediately recall what that is and start to think about the concept rather than struggling with the word and then wondering what it means and losing confidence in her ability to answer the question. The instant recall of vocabulary and meanings can be improved through flash card activities in starters or Literacy DIN activities. The Maths SOW has literacy activities on a weekly basis.

4.1 Language of Operations

All students should be able to understand and use different terms for the four basic operations but some students may have difficulty in associating terms with symbols. The table below summarises the vocabulary associate with four basic mathematical operations.

| + | - | x | ÷ |
|----------|------------|----------|----------|
| Add | Decrease | Multiply | Divide |
| Increase | Difference | Product | Quotient |
| More | Less | Times | Share |
| Plus | Minus | | |
| Sum | Reduce | | |
| Total | Subtract | | |
| | Take away | | |

Glossaries of further mathematical terms can be found using the links below.

http://www.mathwords.com/a_to_z.htm

<https://www.mathsisfun.com/definitions/factor.html>

<https://www.mathsisfun.com/basic-math-definitions.html>

<http://studymaths.co.uk/glossary.php>

