NUMERACY POLICY

A Definition of Numeracy:

Numeracy is a proficiency, which is developed mainly in mathematics but also in other subjects. It is more than an ability to do basic arithmetic. It involves developing confidence and competence with numbers and measures. It requires understanding of the number system, a repertoire of mathematical techniques, and an inclination and ability to solve quantitative or spatial problems in a range of contexts. Numeracy also demands understanding of the ways in which data are gathered by counting and measuring, and presented in graphs, diagrams, charts and tables.

(Framework for Teaching Mathematics - Years 7 to 9 - DfES)

Aims

St. Bernard's Catholic Grammar School is committed to raising the standards of numeracy of all of its students; we want our students 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.

Objectives

- To promote an understanding of the relevance of numeracy in the world today.
- To recognise and encourage the use of mathematics and numeracy in lessons across all subjects.
- To promote consistency across the curriculum in teaching numeracy and understanding of graphical techniques.
- To make other departments aware that support and resources (e.g. calculators, graph paper, dice, compasses) are available.
- To raise students' achievements through improved numeracy skills.

Expected Numeracy Capabilities

All of our students should:

- Have a sense of the size of a number and where it fits into the number system.
- Be able to use strategies successfully to mentally solve number related problems.
- Apply an appropriate method to help solve a problem, e.g. mental, oral and written methods.
- Make sense of number problems and identify and use the required operations to solve them.
- Restrict their reliance on using a calculator and use one only when it is appropriate to do so.
- Develop their skills in estimation and approximation and have strategies for checking the reasonableness of their answers
- Be able to explain their methods and reasoning using consistent language and mathematical terminology
- Be able to make and use sensible estimates of a range of measures in everyday situations.
- Be able to interpret, explain and make predictions from information given in graphs, charts and tables.

- Improve their general problem solving skills.

A Few General Points

The following points are relevant to all Numeracy teaching, and are central to the National Numeracy Strategy:

- There is now a major emphasis on restricting their reliance on using a calculator and to use them only when it is appropriate to do so with students calculating *mentally,* where appropriate. This is to develop their skills in estimation and approximation and have strategies for checking the reasonableness of their answers.

  e.g. a Year 8 student should be able to calculate mentally that:

  23 x 9 is the same as 23 multiplied by 10 minus 23 (=230 – 23 = 207) *and* 5% of 360 is half of 10% of 360 (=half of 36 = 18)

- A vital part of statistics work is the detailed *interpretation* of any graphs that are drawn or used. Accurate drawing of graphs is still important. (Please note that in Mathematics lessons, bar charts have bars that do not touch, and all graphs require axes to be labelled carefully!) However, there should always be an emphasis on thinking about and explaining what the graphs show, too.

- In accordance with the Numeracy Strategy, Mathematics lessons (in Years 7 to 9) should have a three-part structure: mental/oral starter, main activity, plenary.

Approved by Ethos Committee on 25th January 2017

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