



Bucks University Technical College

Numeracy Policy

2017-18

Responsible Officer: Principal
Date: July 2016
Review date: July 2019
Procedure available: Website/Reception/Learning Centre
Authorised by: Governing Body

Numeracy Policy 2017

Rationale

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 **an understanding of the ways in which data are gathered by counting and measuring, and presented in graphs, diagrams, charts and tables.**

Policy

Every subject area makes a contribution to mathematics across the curriculum because we all use some aspects of mathematics. However, certain subjects use mathematics on a day to day basis, more than others.

Teachers of mathematics should:

1. Be aware of the mathematical techniques used in other subjects and provide assistance and advice to other staff, so that a correct and consistent approach is used in all subjects.
2. Provide information to other subject teachers on appropriate expectations of students and difficulties likely to be experienced in various age and ability groups.
3. 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.
4. Seek opportunities to use topics and examination questions from other subjects in mathematics lessons.

Teachers of subjects other than mathematics should:

1. 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.
2. Be aware of appropriate expectations of students and difficulties that might be experienced with numeracy skills.
3. Provide information for mathematics teachers on the stage at which specific numeracy skills will be required for particular groups and agree how these can be best taught.
4. Provide resources for mathematics teachers to enable them to use examples of applications of numeracy relating to other subjects in mathematics lessons.
5. Be aware of strategies and interventions being employed in the mathematics department to raise numeracy standards.

Monitoring, Evaluations and Review

The effectiveness of this policy, as a working document, must be evaluated annually.

Suitable success criteria might be:

1. More teachers are aware of developments in mathematics and numeracy across Key Stages 4 + 5.
2. More teachers are confident about the use of mathematics in their own subject(s).
3. More teachers plan effectively for mathematics used in other subjects.
4. A higher proportion of students are aware of the usefulness of mathematics in other subjects.
5. A higher proportion of students are aware of the usefulness of mathematics in other subjects.
6. Increased liaison between mathematics department and other subject areas about strategies for teaching mathematics, times when mathematical topics are taught and subject-specific examples for use in mathematics lessons.

Cross Curricular Numeracy

Opportunities to develop numeracy will be possible in all subjects. Below are some examples of possible activities to develop the focus on numeracy across the curriculum.

<p><u>English</u></p> <p>Frequency of words (e.g. Shakespeare vs. Bacon)</p> <p>Line Graphs – charting emotional response</p> <p>Algebraic aspects of poetry structure.</p>	<p><u>Science</u></p> <p>Various arithmetical calculations</p> <p>Golden ratio/Fibonacci sequence in nature.</p> <p>Graphs and charts of all kinds</p>	<p><u>Construction</u></p> <p>Measurements and converting units.</p> <p>Constructions, drawing and Trigonometry.</p> <p>Calculations used in electronics.</p>
<p><u>Computing</u></p> <p>Spread sheets, databases and flowcharts.</p> <p>Use of functions in spread sheets for various topics in mathematics.</p> <p>Dimensions of graphics.</p>	<p><u>History</u></p> <p>Timelines and dates.</p> <p>Interpreting statistics.</p> <p>Relevancy of shape in iconography/propaganda.</p> <p>History of maths.</p>	<p><u>MFL</u></p> <p>Money and time design menus with costs.</p> <p>Arithmetic in different languages.</p> <p>Reading numerical signs and information.</p>
<p><u>PE</u> Distance, speed and time calculations.</p> <p>Angles – closing down.</p> <p>Ratios – Power/weight.</p> <p>Shape – Equipment.</p> <p>Counting in Dance.</p>		

Dissemination of the Policy

This policy is available on the school website, on request to parents, the LA and OFSTED through the Principal.

Other Policies that have relevance are:

Teaching and Learning

Date approved by governors: July 2016

Date for review: July 2019