Heathfield
Community College and Sixth Form

Numeracy Across the Curriculum Statement 2026

Aim

Heathfield Community College is committed to raising the standards of numeracy of all its students. This means developing the ability of students to use numeracy skills effectively in all areas of the curriculum and beyond, so that students can use numeracy skills to cope confidently with the demands of further education, employment and adult life.

Definitions of Numeracy

The Department for Education defines numeracy in the following way:

"Numeracy is a proficiency which involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills and an inclination and ability to solve number problems in a variety of contexts. Numeracy also demands a practical understanding of the ways in which information is gathered by counting and measuring, and is presented in graphs, diagrams, charts and tables."

The National Numeracy organisation includes the following in their definition of numeracy:

"Mathematical literacy is an individual's capacity to identify and understand the role that mathematics plays in the world, to make well–founded judgements and to use and engage with mathematics in ways that meet the needs of that individual's life as a constructive, concerned and reflective citizen."
(www.nationalnumeracy.org 2013)

Finally, the Curriculum for Excellence defines numeracy as:

"Being numerate is defined as sharing the confidence and competence in using numbers…to solve problems, analyse information and make informed decisions based on calculations." *(Curriculum for Excellence: Numeracy Across Learning – Principles and Practice 2009)*

Heathfield Community College is committed to providing students with every opportunity to improve their numeracy skills. This is to:

- Enable students to be confident in applying numeracy to everyday situations
- Support students in the application of their mathematical skills to other subjects.
- Ensure students are confident problem-solvers and can understand how to break a problem down into smaller steps.
- Encourage students to use logic and reasoning when explaining a solution.

Numeracy Themes

The school has identified the following as key numeracy themes:

- Numbers (and the number system): Using numbers, whole numbers, size and order, place value, patterns and sequences, numbers 'in between' whole numbers
- Handling Information: graphs and charts, types of data, processing data, comparing sets of data, probability
- Operations and Calculations: Addition and subtraction, multiplication and division, number operations, effective use of a calculator
- Shape, Space and Measure: measurement, shape and space, solving problems with shape, space and measure

These themes are represented visually in Appendix 1.

Roles and responsibilities

The Mathematics Department

All members of the Department are responsible for

- Delivering high quality lessons for all aspects of the Mathematics curriculum
- Promoting a positive attitude towards numbers and numeracy.
- Promoting effective ways for students to solve problems
- Providing opportunities for assessment on Key Skills in mathematics.
- Assessing students fortnightly on their Key Skills in Numeracy and Mathematics.
- Ensuring students have the opportunity to reflect on their Key Skills and assess which skill they need to improve on.
- Students in Y9 and 10 have the opportunity fortnightly, to look at numeracy in exam questions from other subjects such as science and geography, in Maths Across the Curriculum lessons (MAC lessons)

There are 2 key positions in the Mathematics Department who all work together to promote Numeracy across the Curriculum.

- Curriculum Leader for Mathematics
  - To ensure the mathematics curriculum and schemes of work have regular, specific numeracy and problem solving opportunities
  - To ensure there are planned activities in the mathematics curriculum to allow students to learn and practise their range of numeracy skills, applying these to a range of different contexts
  - Provide opportunities to promote parental engagement in improving students' numeracy skills
  - Provide resources to support parents on how to help their child at home.

Assistant Curriculum Leader i/c Achievement

Establish strong links with other subject areas who explicitly need the application of mathematical skills namely Science, Technology and Geography.

- To deliver CPL sessions on teaching numeracy to other departments.
- Work with members of these departments to create opportunities for
- students to transfer their mathematical skills.
- Create opportunities in Key Skills assessments for students to apply their
- numeracy skills in other subject areas.
- Support the CL for mathematics with delivering CPL on teaching numeracy.
- Provide opportunities to promote parental engagement in improving
- students' numeracy skills
- Provide resources to support parents on how to help their child at home

Teachers of subjects other than Mathematics

- To be aware of where numeracy themes appear within their curriculum and how they can support the delivery of numeracy within their subject
- To 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
- To build activities into their lesson planning to ensure students have an opportunity to develop their numeracy skills whilst applying them to the subject based content
- To be aware of appropriate expectations of students and difficulties that might be experienced with numeracy skills
- To help students develop a positive attitude to numeracy skills within their curriculum area
- To recognise that individuals may use informal mathematical techniques, and to support and encourage individuals in developing both their formal techniques and their personal strategies
- As a department, to liaise with the Assistant Headteacher for Mathematics to find best practice in supporting students in these areas.

Monitoring and evaluation of the policy

- Measuring numeracy levels of students through regular low stakes testing and formative assessments, Teacher assessment, and GCSEs
- Through lesson observations and book scrutiny
- Through relevant references in departmental schemes of work
- Through informal monitoring using line management links between the attached leadership person and Subject Leaders
- Through scrutiny and support by the Assistant Headteacher for Mathematics

Appendix 1: Essentials of Numeracy for All



Source: www.nationalnumeracy.org.uk/essentialsofnumeracy

Appendix 2: Numeracy within the Curriculum

Links to other subjects include:

- Art.
  Perspective drawing (one point, two points)

  Fractal art (using computers to generate art)

  Geometric art (aesthetics of mathematical shapes, tessellation)

  Islamic Art.

  Perspectives and golden ratio

  Escher – tessellations. The art of Wasilly Kandinsky, Piet Mondrian, Theo Doesburg and others use geometrical shapes.

  Cubism

- Biology
  Genetics (Chromosomes, DNA)

  Field study (using quadrats for a survey)

  Golden ratio/Fibonacci sequence

- Physics
  Speed, Distance & Time (Calculations, graphs, gradients, and areas)

  Analysing Experimental Data (using scatter diagrams to find relationships)

  Physical Relationships (Using formulae for: period of a pendulum, energy calculations, Hooke's Law, Density

  Planetary and atomic distances (Standard Form)

- Chemistry
  Compounds (ratio of elements)

  Reaction Rates (plots of reaction rate/concentration)

- I.C.T.
  Spreadsheets (sequences, graphing, using formulae)

  Databases (Surveys and collection of data)

  LOGO (Using LOGO to draw geometrical shapes/ procedures for more complex tasks)

- Modern Languages
  Language practise (simple ‘mental’ questions in target language)

  Measures of length/distance, time and weight

  Exchange rates, Money/costs.

- History
  Research (Reading about the history of maths)

  Bias (Researching differing accounts of discoveries and breakthroughs)

  Graphs and charts of various kinds.

  Percentages, ideas of large numbers, wealth.

  Measures of weight, length, time.

  Interrogating databases

- Geography
  Places (Understanding where developments in maths took place)

  Graphs and charts of all kinds.

  Population growth.

  4 figure (or more) grid references.

- Technology
  Graphs and charts of all kinds.

  Construction and measure of 2-D and 3-D shapes. Nets.

  Ratios in recipes