

# **Numeracy Policy**

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## 1. Aims and Objectives:

'Good numeracy is the best protection against unemployment, low wages and poor health.' (Andreas Schleicher, OECD, 2013)

At Rushden Academy we are committed to raising standards of numeracy and mathematics both in mathematics classrooms and across all subjects. At the Academy we believe that students need to develop and be proficient with the numeracy skills needed in daily life. Numeracy is a life skill that is used in all subjects across the curriculum. Each member of staff has a responsibility for promoting the use of numeracy skills where appropriate and in reducing the stigma around numeracy to increase confidence levels with our students. Within our maths department we have developed a consistency of practice with respect to mathematical notation and vocabulary. We have also developed and shared teaching practice of key skills across the school to promote a consistency of teaching methods used in and out of mathematics lessons. By delivering these objectives we believe that we can raise standards of numeracy in our students and close the gaps between lower and higher attaining students to allow all our students the essential numeracy skills needed for life.

This policy is written to be used in conjunction with the Numeracy Across the Curriculum Staff Handbook which gives detailed methods on particular topics relating to numeracy methods and vocabulary.

## Aims of the Policy

- To raise the profile of numeracy across the school
- To tackle the stigma around numeracy and raise confidence competence and proficiency of numeracy skills for all our students
- To encourage a consistency of practice of numeracy skills across curriculum subjects
- To recognise that all teachers are facilitators of numeracy in their own subjects and are responsible for assisting pupils in developing transferable knowledge

# 2. DEFINITION OF NUMERACY

## - Mathematics Teachers Should

- Deliver high quality maths lessons that follow the correct sequencing outlined in our schemes of work which are based on the National Curriculum.
- Use the agreed assessment policy which includes bi weekly progress checks and feedback to pupils assessing prior knowledge; end of unit assessments with feedback and targeted work to follow up on mistakes and

misconceptions; termly progress report assessments a summative assessment and feedback on a student's performance though the term.

- For years 7 and 8 use the Star Testing system to identify any gaps in learning and intervene where appropriate with retrieval starters, or taking time in lessons to fill gaps in learning.
- Promote mathematical literacy within lessons including using definitions of terms in lessons and linking to those on the wall in each classroom.
- Always use correct mathematical language and notation and have an expectation that students use this too.
- At appropriate opportunities explore the use of mathematics in everyday life and potential careers for our pupils.
- Set homework at a minimum of once per week following the whole school homework timetable. The majority of homework is set using the mathswatch system with some supplement of paper homework where appropriate. Homework set should be relevant to current learning or retrieval of previous knowledge to aid in future learning.

## - Teachers of Other Subjects Should

Teachers of all subjects play a key role in not only the promotion of numeracy within their subject but also in addressing the negative stigma around their own and their pupils' ability to be numerate. All teachers are responsible for helping to create a positive view of the importance of numeracy to help build confidence in numeracy for our pupils. Subject teachers should be familiar with the mathematical language, notation and techniques for mathematics as outlined in the Numeracy Across the Curriculum Staff Handbook. Teachers of years 7 and 8 should also be using the Star Maths testing data on their seating plans to identify those pupils in groups 1-4 (At/above, On Watch, Intervention and Urgent Intervention) when planning and delivering lessons with numeracy content to identify and support those pupils who require extra intervention. Staff should be using and applying these techniques when teaching any numeracy related skills within their subjects. Departments should encourage correct language, notation and strategies when solving numerical problems. Departments must highlight the numeracy skills they use in their subject areas and work to build transferable skills.

## - Form Tutors Should

Play a key role in positively promoting numeracy and addressing the stigma around numeracy to build confidence for their pupils.

#### - KS3 Tutors Should

- Promote the whole school problem of the week and encourage students to attempt it
- Complete the weekly problems with their tutor groups in form time. This includes encouraging correct vocabulary and skills with the use of the weekly recording if necessary.
- Support students to gain fluency in mathematics
- Remind students of the importance of numeracy as a life skill and relate it to further learning or career opportunities.
- Use the Star Maths testing on their seating plans to identify and support those students who are in groups 2-4 with the weekly problems and any other numeracy tasks in tutor time

## - KS4 Tutors Should

- Promote the whole school problem of the week and encourage students to attempt it
- Remind students of the importance of numeracy as a life skill and relate it to further learning or career opportunities
- Use opportunities when delivering the PSHE lessons where appropriate to incorporate proper numeracy and problem solving skills

# - Numeracy Coordinator Should

- Be passionate about numeracy and mathematics with a belief that everyone is able to do it.
- Raise the profile of numeracy across the school
- Improve cross curricular links and work with departments to use appropriate opportunities to focus on numeracy in their teaching
- Work with the Head of Mathematics and the Mathematics Department to ensure that the whole school numeracy approach fits in with that of the mathematics department and those of the wider school
- Plan and implement whole school approaches with the aim to build pupil confidence with numeracy
- To coordinate the Star Maths program and its communication of results across the school
- To annually monitor, review and evaluate the delivery of the Numeracy across the Curriculum
- Pupils Should

Be encouraged to solve problems mentally (which may involve making 'jottings') if possible, followed by the option of formal written methods. Calculators are introduced at key stage 3 and depending on if they are allowed in a particular subject they may favour the use of calculator methods. If mental working is necessary please refer to the methods set out in the Numeracy Across the Curriculum Handbook.

## 3. Extra Curricular Numeracy Learning Opportunities

- Weekly whole school problem
- Junior, Intermediate and Senior Maths Challenges
- External Mathematics Competitions
- Opportunities to visit local universities

## 4. Numeracy Support

- In years 7 and 8 students are assessed three times per year using the Star Maths testing system. Those pupils identified in Groups 2-4 (On Watch, Intervention, Urgent Intervention) have been invited to attend extra maths lessons on a Monday after school. Some of these pupils also receive extra support for numeracy as well as literacy in timetabled extra maths lessons once per week. These lessons are led by current members of the Mathematics Department. This support offered includes SEN and PP students who require the extra intervention as identified.
- In years 9, 10 and 11 pupils identified though the department assessment policy as requiring extra support have been invited to attend extra lessons on a Monday after school. Some of the pupils in years 9 and 11 also receive extra support for numeracy as well as literacy in timetabled extra maths lessons once per week. This support offered includes SEN and PP students who require the extra intervention as identified.

#### 5. Cross Curricular Skills

The following are the transferable cross curricular skills identified by departments that the maths department focus on through their teaching to aid in understanding across other subjects.

Art - Shape, measurement and scales

Business - Number operations, fractions, decimals and percentages

Childcare - Number operations, ratio and proportion and graphs

Dance - Mental calculations, estimation and percentages Drama - Estimation, percentages and ratio

English - Reading and writing numbers, mental calculation and percentages

Geography - Number operations, estimation, measurement, scales, graphs and charts

Graphics - Shapes and measures

History - Reading and writing numbers, number operations and sequencing

Information Communication Technology - Number operations, fractions, decimals, percentages, measurements, conversions, graphs, averages

Modern Foreign Languages - Reading and writing numbers, number operations, measurements, timetables

Music - Reading and writing numbers, number operations, fractions and percentages

Photography - Approximation, shapes and measures

Physical Education - Rounding, negative numbers, percentages and measurements

Science - Number operations, fractions, decimals, percentages, ratio, estimation, standard form, formulae, shapes, measures, conversions, graphs, averages, and sampling

Sport - Number operations, fractions, percentages, estimation, and graphs

This policy was approved by the board on: 10 <sup>th</sup> May 2022			
Signature of LGB chair:			
Name of LGB chair:	Tim Foster		
Date of renewal:	May 2024		