RAEDWALD ACADEMY TRUST OUTREACH TEACHING SERVICE
Key Stage 3 Mathematics Policy

Overview

The aim of the Mathematics curriculum across the Raedwald Trust Outreach Service is to ensure that all learners develop their mathematical fluency, are able to reason using this fluency and apply their knowledge to solve a wide range of practical/functional problems.

Where we are providing specific students with supplementary interventions in collaboration with their mainstream or other full-time educational placement, we will focus on those aspects of the National Curriculum identified for us by the schools as being of the most benefit to the student. Where our students are – temporarily – not on the roll of a full-time provider, we are committed to providing a bespoke curriculum which meets their needs.

We aim to provide our students opportunities to follow a programme of study based on the National Curriculum. It will build upon subject knowledge gained in KS2 whilst preparing them for the challenges of KS4. Pupils entering the Outreach Service are likely to be at different stages in their mathematical knowledge. Initially they will be assessed for prior knowledge and will enter into the programme of study at an appropriate level, progressing along curriculum strands.

Impact

The fundamental areas in our mathematics curriculum are:

- Number
- Algebra
- Ratio, proportion and rates of change
- Geometry and measurement
- Probability
- Statistics

Bespoke learning packages in collaboration with mainstream schools and initial assessment will ensure that students will access the relevant content for the unit as outlined in the curriculum strands.

	Autumn	Spring	Summer
Year 7	Number – four operations; rounding; factors and multiples; basic percentages Algebra – coordinates in all four quadrants Ratio – fractions Geometry – area and perimeter; draw and measure line segments and angles; Statistics – representing data	Number – BIDMAS; decimal place value; negative numbers Algebra – simplify algebraic expressions; substitution Ratio – calculate fractions; divide a quantity to a given ratio Geometry – properties of polygons Probability –simple probability experiments	Number - money; using a calculator; inverse operations; change between standard units (time, length etc); percentage change Algebra – sequences Ratio – scale factors; Geometry – properties of angles; transformations Statistics – analysing data
Year 8	Number– four operations; factors and multiples;	Number– rounding; percentages; money including	Number – inverse operations; negative

	BIDMAS; using a calculator Algebra – simplify and manipulate algebraic expressions; algebraic vocabulary; solve simple equations Ratio – manipulate and calculate fractions; Geometry – properties of polygons and 3D shapes; area and perimeter; volume of cuboids and prisms	decimals; percentage change Geometry – describe/draw/measure line segments and angles in shapes; properties of angles at a point Statistics – representing data	numbers; change between standard units (time, length etc); Algebra – sequences; co-ordinates in 4 quadrants; substitution; solving basic equations Ratio – divide a quantity in a given ratio probability– basic probability theory Statistics – representing and analysing data
Year 9	Number –basic number; factors and multiples; basic fractions; basic decimals; rounding Algebra – basic algebra; co-ordinates and linear graphs Geometry – angles; scale drawings and bearings; Statistics – collecting and representing data Time for review and revision	Number - basic percentages Algebra – sequences Ratio – introduction to ratio and proportion Geometry – introduction to perimeter, area and circumference Probability – basic probability Time for review and revision	Algebra - equations; Geometry – transformations; Pythagoras's theorem; 2D representations of 3D shapes Statistics – scatter graphs Time for review and revision

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Mathematics and the wider curriculum

Within the Outreach Service we believe that it is important for all students to develop cultural skills, knowledge and behaviors that will allow them to thrive in society and the world of work. The Mathematics curriculum sets out to develop our learners' cultural capital to make them ready for their next stage in their lives. This is achieved in many ways including teaching student's real-life skills related to reading timetables, budgeting, finance, recipes, speed/distance, etc.

The Mathematics curriculum promotes the British values of tolerance and resilience each lesson through problem solving and understanding of complex concepts. Students are encouraged to learn from mistakes and are supported to improve their understanding.

Every opportunity is taken within the classroom to allow students to develop their reading. Many forms of text are actively shared with students to prepare them for independence within society including reading menus, timetables, recipes, advertisements, construction plans, etc. Students are actively encouraged to read and are supported to understand key words. Staff explicitly teach the meaning of command words to aid students' understanding of

mathematical questions. Within lessons, staff promote high standards of literacy, articulacy and the correct use of standard English.