

**Ormiston Beachcroft Academy Vision for Education – Maths 2022-2023**

The Curriculum Vision for Mathematics

The school's mission is **Together Everyone Achieves More**. Our values are built on the four principles of Trust, Excellence, Ambition, Motivation: we are a community built on Trust, we strive for Excellence in everything we do, we are Ambitious in our aims and we are Motivated to help all succeed.

With these values and principles in mind, we need to ensure that learners can achieve both currency and character. Our learners must be able to achieve qualifications that will support life chances, whilst being able to develop as individuals who have the characteristics that will allow them to integrate successfully into a Modern Britain.

Beachcroft Programme of Education (Maths)

Intent

Central to the concept of the curriculum intent in mathematics is the planning, preparation and delivery of lessons based on three assessment objectives. They are:

- using and applying standard techniques across the board
- being able to reason, interpret and communicate mathematically and
- solving problems by linking various parts of the maths curriculum and relating these to real-life experiences

Implementation

At Key Stage 3, there are 3 Maths lessons each week. There are also 5 Maths lessons a week for our Year 10 students, and 4 lessons per week for the Year 11 students at our Academy.

At the heart of lesson planning and preparation are medium and long-term Schemes of Work and Schemes of Learning. Particular attention is paid to filling the gaps in students' previous learning experiences and consolidating prior topic-based and generic knowledge. These strategies are supplemented by Learner Profiles which identify individual students' learning needs. Emphasis is also placed on students' acquisition and consolidation of subject-specific and generic skills. Some of the key skills which learners are expected to learn and fine-tune with the passage of time are shown below the strands in the curriculum map. These skills are transferable not only in maths as a school subject but elsewhere in life. The focus of every lesson is to stress the importance of reading comprehension and the uses to which keywords can be put when answering maths questions in class.

Impact:

Students' learning outcomes are usually measured through their performance in externally-set examinations during or at the end of each Key Stage.

Assessment in Maths

We formally assess our students in terms 2, 4 and 6 respectively.

Key Stage 3 students are formally assessed using the GL (12 – 14) Test package and Edexcel standardised test. The choice of the former package is because it is a standardised test that tallies with the National Curriculum. Teacher feedback is an on-going process for learners with a focus on what each student does well and what they need to do to improve further.

Besides teacher feedback and the setting of smart targets for the students to achieve, Key Stage 4 students are assessed using mock GCSE examinations, practice papers and topic-based skills tests.

We moderate assessments in the following two ways:

- 1) Using GCSE mark schemes for test and practice papers and
- 2) Using mark schemes for tests ranging from Entry Level 1 to Functional Skills Levels 1 and 2.

It is an approach that enables students to leave school with a qualification at the end of Year 11.

Curriculum Map/Programme of Study

Key Stage / Year	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Key Stage 3</b>	<b>Unit 1</b> Integers and place value  Decimals  Indices, powers and roots  Factors, multiples and primes	<b>Unit 2</b> Algebra: the basics  Expanding and factorising single brackets  Expressions and substitution into formulae	<b>Unit 3</b> Tables  Charts and graphs  Pie charts  Scatter graphs	<b>Unit 4</b> Fractions  Fractions, decimals and percentages  Percentages	<b>Unit 5</b> Equations  Inequalities  Sequences	<b>Unit 6</b> Properties of shapes, parallel lines and angle facts  Interior and exterior angles of polygons  <b>Unit 8</b> Perimeter and area  3D forms and volume
<b>Year 10</b>	<b>Unit 7</b> Statistics and sampling  The averages	<b>Unit 9</b> Real-life graphs  Straight-line graphs  <b>Unit 10</b> Transformations1: translations, rotations and reflections  Transformations2: enlargement and combinations	<b>Unit 11</b> Ratio  Proportion  <b>Unit 12</b> Right-angled triangles: Pythagoras and trigonometry	<b>Unit 13</b> Probability I  Probability II  <b>Unit 14</b> Multiplicative reasoning  Unit14 Assessment	<b>Unit 15</b> Plans and elevations  Constructions, loci and bearings  <b>Unit 16</b> Quadratic equations: expanding and factorising  Quadratic equations: graphs  Circles, cylinders, cones and spheres	<b>Unit 17</b> Circles, cylinders, cones and spheres
<b>Year 11 (2021/2 only)</b>	<b>Unit 16</b> Quadratic equations: expanding and factorising  Quadratic equations: graphs  <b>Unit 17</b> Circles, cylinders, cones and spheres	<b>Unit 18</b> Fractions and reciprocals Indices and standard form  <b>Unit 19</b> Similarity and congruence in 2D Vectors	<b>Unit 20</b> Rearranging equations, graphs of cubic, reciprocal functions and simultaneous equations	Mop up any missed topics  Mock Exam	Revision and past paper	

**Qualifications offered:**

Level	Exam Board	Specification Code	Qualification title
GCSE	Pearson Edexcel	*Paper code: 1MA1/1F or 1MA1/1H	Pearson Edexcel Level 1/Level 2 GCSE (9-1) in Mathematics (1MA1)
Functional Skills	Pearson Edexcel	603/4269/9 (entry level 1), 603/4265/1(entry level 2), 603/4266/3(entry level 3)	Mathematics Entry Levels 1-3
		603/4267/5(level 1), 603/4268/7(level 2)	Mathematics Level 1 and Level 2