Mathematics at Maplewell

At Maplewell Hall School we believe in careful curriculum planning, which dynamically adheres to students' needs, is the basis of solid student progress. We streamline this through three pathways which are outlined below, however this differs from year to year as we mould our curriculum to our specific cohort of students.

In light of the COVID-19 pandemic, we have put the necessary adaptations to the curriculum in place to support the learning of our students. We continue to adapt and update our schemes of work to provide our students with a complete learning experience.

All classroom resources will be made available on Google Classroom for students who are learning from home.

We have devised plans to continue teaching the curriculum during a number of possible scenarios.

School learning – students are in school full time	Blended learning – a mixture of learning at school and at home	Remote learning – learning that takes place only at home
Continue with the curriculum, making regular assessments of students' understanding and adapting schemes of work where required to support learning following from school closures in the summer term.	All classroom resources to be made available on Google Classroom for students learning from home. Students will receive feedback on the work completed at home. They can then continue with the curriculum taught in school on their return.	All learning is completed online through Google Classroom. The curriculum will be taught as planned through a combination of live and pre-recorded video lessons, resources for students to complete the work and feedback during the school day from their teachers.

Year 7

7A – Initially students will focus on developing skills in number, place value, addition, subtraction, multiplication and division. Also covered in this year are topics such as perimeter, time and measurements. The curriculum is taught with a strong emphasis on reasoning and problem solving to strengthen these skills. Teachers will regularly assess the students' knowledge so they can identify any topic areas that need extra attention following school closures in the summer term.

Autumn	Number: Place Value	Number: Addition and Subtraction	Number: Multiplication and Division
Spring	Number: Multiplication and Division	Measurement: Money | Statistics	Measurement: Length and Perimeter | Number: Fractions | Consolidation
Summer	Number: Fractions	Measurement: Time | Geometry: Properties of Shape	Measurement: Mass and Capacity | Consolidation

7B – Students will follow a scheme of work that is heavily focused on developing their skills in number. This will include topics like place value, addition, subtraction, multiplication and division. This curriculum is targeted to improve the students' understanding of numbers and their uses. Teachers will regularly assess the students' knowledge so they can identify any topic areas that need extra attention following school closures in the summer term.

Autumn	Number: Place Value	Number: Addition and Subtraction	Measurement: Money | Number: Multiplication and Division | Consolidation
Spring	Number: Multiplication and Division	Statistics | Geometry: Properties of Shape	Number: Fractions | Consolidation
Summer	Measurement: Length and Height | Geometry: Position and Direction	Consolidation and problem solving | Measurement: Time	Measurement: Mass, Capacity and Temperature | Consolidation

7MAP – Students have strong mathematical skills and therefore follow a curriculum that reflects that and challenges them. Students will be introduced to topics in the algebra branch and well as beginning a more in-depth journey into geometry. Teachers will regularly assess the students' knowledge so they can identify any topic areas that need extra attention following school closures in the summer term. It may be required that some prerequisites to the content covered in this curriculum need to be delivered ahead of the planned content. Topics in the planned pathway may need an extended amount of time to deliver to ensure those prerequisites are taught so that students can access the content on the planned pathway.

	Algebraic Thinking			Place Value and Proportion	
Autumn	Sequences	Understand and use algebraic notation	Equality and equivalence	Place value and ordering integers and decimals	Fraction, decimal and percentage equivalence

	Applications of Number			Directed Number	Fractional Thinking
Spring	Solving problems with addition & subtraction	Solving problems with multiplication and division	Fractions & percentages of amounts	Operations and equations with directed number	Addition and subtraction of fractions

	Lines and Angles		Reasoning with Number		
Summer	Constructing, measuring and using geometric notation	Developing geometric reasoning	Developing number sense	Sets and probability	Prime numbers and proof

Year 8

8A – In their second year at Maplewell Hall School, students delve deeper into the topics covered in year 7 to broaden their understanding and application of the skills they've learned. This cyclic approach allows for our philosophy of mastery teaching to be effectively delivered. The curriculum will be delivered with additional time dedicated to each topic for teachers to regularly assess the students' knowledge and plan to deliver prerequisite content for the planned curriculum to ensure students have the necessary skills to access it following school closures in the summer term.

Autumn	Number: Place Value	Number: Addition and Subtraction	Measurement: Length and Perimeter	Number: Multiplication and Division
Spring	Number: Multiplication and Division / Measurement: Area	Number: Fractions	Number: Decimals	Consolidation
Summer	Number: Decimals / Measurement: Money / Measurement: Time / Statistics	Geometry: Properties of Shape	Geometry: Position and Direction	Consolidation

8B – Students skills in number topics will continue to be refined and their understanding of how number is used will be strengthened. Students will revisit topics covered in year 7 at a deeper level to ensure they are progressing in these topics. The curriculum will be delivered with additional time

dedicated to each topic for teachers to regularly assess the students' knowledge and plan to deliver prerequisite content for the planned curriculum to ensure students have the necessary skills to access it following school closures in the summer term.

Autumn	Number: Place Value	Number: Addition and Subtraction		Number: Multiplication and Division	
Spring	Number: Multiplication and Division	Measurement: Money / Statistics	Measurement: Length and Perimeter	Number: Fractions	Consolidation
Summer	Number: Fractions	Measurement: Time	Geometry: Properties of Shape	Measurement: Mass and Capacity	Consolidation

8MAP – Students will begin to study topics which will underpin their journey towards GCSE mathematics. They will be learning skills that will be progressively built upon throughout their time at Maplewell Hall School and will give them the tools to begin GCSE level content in year 9. The planned curriculum will be delivered after the completion of the topics that were missed from the year 7 curriculum due to school closures. (Below is the planned Year 8 curriculum which will be delivered after the 'catch-up' of missed Year 7 topics.)

	Proportional Reasoning			Representations		
Autumn	Ratio and scale	Multiplicative change	Multiplying and dividing fractions	Working in the Cartesian plane	Representing data	Tables & Probability
	Algebraic Techniques			Developing Number		
Spring	Brackets, equations and inequalities	Sequences	Indices	Fractions and percentages	Standard index form	Number sense
	Developing Geometry			Reasoning with Data		
Summer	Angles in parallel lines and polygons	Area of trapezia and circles	Line symmetry and reflection	The data handling cycle		Measures of location

Year 9

9A – Students will be starting a new 3-year GCSE scheme of work which they will continue throughout their time in KS3 and KS4. The topics taught will be directly linked to topics covered in the GCSE and will begin a foundation that can be built upon and developed over the coming years. Where required, more time will be dedicated to each topic for teachers to assess students regularly in order to support them following the school closure in the summer term. Contingency time has been planned into this scheme of work so more time can be spent on topics and the prerequisites as needed.

Autumn 1	Basic Number	Factors and Multiples	Angles	Scale diagrams and bearings	Contingency	DIRT 1 Review and Revision 1	
Autumn 2	Basic Algebra	Basic Fractions		Basic Decimals		Contingency	EXAMS
Spring 1	Rounding	Basic Percentages		Introduction to Perimeter and Area (1)	Contingency	DIRT 2 Review and Revision 2	
Spring 2	Introduction to Perimeter and Area (2)	Ratio and Proportion		Collecting and Representing Data (1)	Contingency		
Summer 1	Collecting and Representing Data (2)	Sequences	Equations			Contingency	DIRT 3 Review and Revision 3
Summer 2	Basic Probability	Scatter Graphs	Contingency	Revision and end of year exams	Contingency/End of year activites		

9B – Students will continue on their spiral curriculum by revisiting topics from years 7 and 8 but continuing to deepen their understanding a develop their skills. Topics 'Time,' 'Properties of shapes,' and 'Mass and capacity' have been identified as topics that will need to be covered in more detail as these were topics that were not delivered at the end of Year 8 due to school closures. Additional time will be dedicated to these topic areas so prerequisites to the learning can also be delivered by teachers.

Autumn	Number: Place Value	Number: Addition and Subtraction		Number: Multiplication and Division	
Spring	Number: Multiplication and Division	Measurement: Money	Statistics	Measurement: Length and Perimeter	Number: Fractions
Summer	Number: Fractions	Measurement: Time	Geometry: Properties of Shape	Measurement: Mass and Capacity	Consolidation

9MAP - Students will be starting a new 3-year GCSE scheme of work which they will continue throughout their time in KS3 and KS4. The topics taught will be directly linked to topics covered in the GCSE and will begin a foundation that can be built upon and developed over the coming years. Where required, more time will be dedicated to each topic for teachers to assess students regularly in order to support them following the school closure in the summer term. Contingency time has been planned into this scheme of work so more time can be spent on topics and the prerequisites as needed.

	Topics
Autumn 1	Basic Number / Factors and Multiples / Angles / Scale diagrams and bearings / Contingency / DIRT 1 Review and Revision 1
Autumn 2	Basic Algebra / Basic Fractions / Basic Decimals / Contingency / EXAMS
Spring 1	Rounding / Basic Percentages / Introduction to Perimeter and Area (1) / Contingency / DIRT 2 Review and Revision 2
Spring 2	Introduction to Perimeter and Area (2) / Ratio and Proportion / Collecting and Representing Data (1) / Contingency
Summer 1	Collecting and Representing Data (2) / Sequences / Equations / Contingency / DIRT 3 Review and Revision 3
Summer 2	Basic Probability / Scatter Graphs / Contingency / Revision and end of year exams / Contingency /End of year activites

Year 10

10A – Students will be starting a new 2-year GCSE scheme of work of GCSE content which they will continue into year 11. This curriculum will be more content-heavy as we aspire for students to achieve the best possible grades for themselves and to prepare them for college/further education. The topics covered will contribute towards Foundation (and in the case of our most able; Higher) GCSE, in line with the National Curriculum. As well as continuing to learn new skills they will also be developing their ability to reason and problem solve. Where required, more time will be dedicated to each topic for teachers to assess students regularly in order to support them following the school closures in the summer term. Contingency time has been planned into this scheme of work so more time can be spent on topics and the prerequisites as needed.

Autumn 1	**Basic Number**	**Factors and Multiples**	**Angles**	Scale diagrams and bearings	**Basic Algebra**	DIRT 1 Review and Revision 1	
Autumn 2	**Basic Fractions**	**Basic Decimals**		Coordinates and Linear Graphs	**Rounding**	Contingency	E X A M S
Spring 1	**Basic Percentages**	**Perimeter and Area**	**Ratio and Proportion**		Contingency	DIRT 2 Review and Revision	
Spring 2	**Collecting and Representing Data**	**Sequences**	**Equations (1)**				
Summer 1	**Equations (2)**	Circumference and Area	**Properties of Polygons**		**Indices**	DIRT 3 Review and Revisio	
Summer 2	**Standard Form**	**Probability**	Scatter Graphs	Revision and end of year exams	Contingency/ End of year activites		

10B - Students will be entered onto the AQA Entry Level Certificate qualification course. This course is largely based on the use of mathematical skills in real-life situations. Students on this course will be developing basic mathematical skills that will be useful to them during and beyond their time in school.

Year: 10B   Pathway: AQA Entry Level

Autumn Term 1											
	Component 1: Properties of Number					Component 2: The Four Operations					
Autumn Term 2											
	Component 2: The Four Operations				Component 3: Ratio						
Spring Term 1											
	Component 4: Money					Component 5: The Calendar and Time					
Spring Term 2											
	Component 5: The Calendar and Time			Component 6: Measures							
Summer Term 1											
	Component 7: Geometry										
Summer Term 2											
	Component 8: Statistics										

10MAP - Students will be starting a new 2-year GCSE scheme of work of GCSE content which they will continue into year 11. This curriculum will be more content-heavy as we aspire for students to achieve the best possible grades for themselves and to prepare them for college/further education. The topics covered will contribute towards Foundation (and in the case of our most able; Higher) GCSE, in line with the National Curriculum. As well as continuing to learn new skills they will also be developing their ability to reason and problem solve. Where required, more time will be dedicated to each topic for teachers to assess students regularly in order to support them following the school closures in the summer term. Contingency time has been planned into this scheme of work so more time can be spent on topics and the prerequisites as needed.

Autumn 1	**Basic Number**	**Factors and Multiples**	**Angles**	Scale diagrams and bearings	**Basic Algebra**	DIRT 1 Review and Revision 1
Autumn 2	Basic Fractions		Basic Decimals		Coordinates and Linear Graphs	Rounding	Contingency	EXAMS
Spring 1	Basic Percentages	Perimeter and Area		Ratio and Proportion	Contingency	DIRT 2 Review and Revision
Spring 2	Collecting and Representing Data		Sequences		Equations (1)	
Summer 1	Equations (2)		Circumference and Area	Properties of Polygons		Indices	DIRT 2 Review and Revision
Summer 2	Standard Form	Probability	Scatter Graphs	Revision and end of year exams	Contingency/ End of year activites	

Year 11

11A – Following the school closures in the summer term, the topics 'Probability' and 'Vectors' were identified as topics that had not been taught at the end of year 10. These topics have been prioritised in the recovery curriculum and placed at the beginning of the scheme of work for year 11. The year 11 curriculum will be delivered as planned immediately afterwards in order for the students to continue their 2-year GCSE pathway.

Autumn 1	**Probability**	**Vectors**	**Statistical Measures**	Statistical Charts	Scatter diagrams	DIRT 1 Review and Revision 1
Autumn 2	**Transformations**	**Basic Algebra** / Surds / Algebraic Quadratics, Rearranging Formulae and Identities		**Pythagoras' Theorem**	**Angles** / **Trigonometry**	EXAMS
Spring 1	**Inequalities**	**Volume**	**Ratio** / Solving Quadratic Equations	**Congruence and Similarity** / Quadratic Graphs / Sketching graphs		DIRT 2 Review and Revi
Spring 2	Area and perimeter / Simultaneous Equations	Constructions and Loci	Real Life Graphs	Revision / Direct and Inverse Proportion		
Summer 1	**Revision**					DIRT 3 Review and Revision 3
	Circle Theorems	Equation of a Circle	Transforming Functions	**Revision**		
Summer 2	Revision and end of year exams					

11B – Students will continue to work towards their Entry Level Certificate qualification. This course is largely based on the use of mathematical skills in real-life situations. Students on this course will be developing basic mathematical skills that will be useful to them during and beyond their time in school.

11MAP - Following the school closures in the summer term, the topics 'Probability' and 'Vectors' were identified as topics that had not been taught at the end of year 10. These topics have been prioritised in the recovery curriculum and placed at the beginning of the scheme of work for year 11. The year 11 curriculum will be delivered as planned immediately afterwards in order for the students to continue their 2-year GCSE pathway.

Autumn 1	Probability	Vectors	Transformations	Congruence and Similarity	DIRT: Review and Revision
Autumn 2	Statistical Measures	Surds	Algebra: Quadratics, Rearranging Formulae and Identities	Pythagoras' Theorem	Trigonometry	EXAMS
Spring 1	Inequalities	Volume	Solving Quadratic Equations	Quadratic Graphs	Sketching graphs	DIRT 2 Review and Revision
Spring 2	Simultaneous Equations	Constructions and Loci	Real Life Graphs	Revision / Direct and Inverse Proportion
Summer 1	Revision / Circle Theorems / Equation of a Circle / Transforming Function / Revision	DIRT 3 Review and Revision
Summer 2	Revision and end of year exams

K5

K5 – All classes in KS5 will be doing one of the following:

- 1-year GCSE resit course (Foundation)
- Entry Level Certificate qualification
- Functional Skills (Level 1 or 2) qualification

Students will be assigned to the course most suited to their ability. The course will be taught from the beginning, though teachers will regularly assess students' current skills so they can plan to teach any content that may have been missed or need revisiting due to the school closures in the summer term. This will ensure they have the necessary skills to make progress on their course.