### CURRICULUM PLAN-MATHEMATICS

### KS3:

#### YEAR 7

TERM 1	TERM 2	TERM 3
CONTENT Number Skills Decimals and Rounding Algebraic Expressions	CONTENT Indices Solving Equations Ratios	CONTENT Angle rules 2D Shapes – properties, area and perimeter 3d shapes End of year project
ASSESSMENTS <ul> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments</li> <li>Ninja booklets</li> </ul>	<ul> <li>ASSESSMENTS</li> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments (Hegarty)</li> <li>Ninja Booklets</li> </ul>	ASSESSMENTS <ul> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments (Hegarty)</li> <li>Ninja Booklets</li> <li>End of year exam</li> </ul>
HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch	HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch	HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch

## KS3:

# YEAR 8

TERM 1	TERM 2	TERM 3
CONTENT	CONTENT	CONTENT
Sequences Graphs Basic Standard Form and rules of Indices Bounds	Solving complex linear Equations Averages – discrete and Continuous Ratio	**Calculator work** Percentages Probability End of year project e .g. best buys/ to include percentages on calc etc
ASSESSMENTS <ul> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments (Hegarty)</li> <li>Fortnightly times table tests (starting after half term</li> </ul>	<ul> <li>ASSESSMENTS</li> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments (Hegarty)</li> <li>Fortnightly times table tests</li> </ul>	ASSESSMENTS <ul> <li>Standardized Tests which can monitor progress</li> <li>Homework assessments (Hegarty)</li> <li>Fortnightly times table tests End of Year Exam</li> <li>End of year exam</li> </ul>
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson
Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch

### KS4:

### YEAR 9 - Exam Board EDEXCEL – Pearson Textbook

TERM 1	TERM 2	TERM 3
CONTENT	CONTENT	CONTENT
Ch 1. Number: Calculations Ch 2Number: Algebra - expressions Ch 3 Representing Data	Ch 4 Fractions, Ratio & Percentages Ch 5 Algles and Trig	Chapter 6 Graphs Chapter 7– Area and Volume Chapter 8 - Transformations
ASSESSMENTS	ASSESSMENTS	ASSESSMENTS
<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> </ul>	<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> </ul>	<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> <li>End of Year Exam</li> </ul>
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson
Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch

### YEAR 10 - Exam Board EDEXCEL- Pearson Textbook

TERM 1	TERM 2	TERM 3
Ch 9 Equations and Inequalities1 Ch 10 Probability Ch 11 Multiplicative Reasoning	Ch 12 Similarity and Congruency Ch 13 More Trig Ch 14 Further Statistics	Ch 15: Equations and Graphs Ch 16 Circle Theorems Ch 17 More Algebra
ASSESSMENTS	ASSESSMENTS	ASSESSMENTS
<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> </ul>	<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> <li>Mid-Year Exams</li> </ul>	<ul> <li>End of Unit Assessments</li> <li>Homework Assessments</li> </ul>
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson
Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch	Ensuring your child is able to access and use Hegarty Maths and Maths Watch

## YEAR 11 – Exam Board EDEXCEL

TERM 1	TERM 2	TERM 3
Ch 19 – Proportions and Graphs Revision for mocks	Ch18 – vectors and geometric proof Revision for GCSE	Revision and preparation for GCSE exam
ASSESSMENTS <ul> <li>1 tests measuring progress during this first term</li> <li>Mock Exams</li> </ul>	ASSESSMENTS <ul> <li>2 tests measuring progress during this second term and regular use of practice papers</li> </ul>	ASSESSMENTS <ul> <li>In class exam practice using past papers</li> </ul>
HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch	HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch	HOW PARENTS CAN SUPPORT LEARNING Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use Hegarty Maths and Maths Watch

#### YEAR 12 – Mathematics – Exam Board EDEXCEL

TERM 1	TERM 2	TERM 3
Papers 1 and 2: Pure Mathematics 1	Papers 1 and 2: Pure Mathematics 1	Papers 1 and 2: Pure Mathematics 1
Paper 3: Statistics and Mechanics	Paper 3: Statistics and Mechanics	Paper 3: Statistics and Mechanics
Content overview	Content overview	Content overview
Indices and Surds	• Trigonometry	<ul> <li>Integration continued</li> </ul>
Quadratics & Discriminant	Differentiation	<ul> <li>Logarithms and Exponentials</li> </ul>
Simultaneous Equations & Inequalities	Integration	Variable Acceleration
Cubic, Quartic and Reciprocal Graphs	Constant Acceleration Equations	Correlation
Straight Line Graphs	Probability	Regression
Equation of a Circle	•Forces and Motion	• Binomial Distribution & Hypothesis Testing
Algebraic Division & Factor Theorem	Resolving Forces	
Sampling	• Vectors	
Measures of Spread		
Representing Data		
Modelling in Mechanics		
ASSESSMENTS	ASSESSMENTS	ASSESSMENTS
ASSESSIVIENTS	ASSESSMENTS	ASSESSIVIEINTS
<ul> <li>Progress test by half term and progress test at end of term</li> </ul>	<ul> <li>Mock exam at start of term, progress test at end of term</li> </ul>	Ongoing exam preparation and practise
Progress test by half term and progress test at	Mock exam at start of term, progress test at	
<ul> <li>Progress test by half term and progress test at end of term</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> <li>Ensuring your child completes homework and brings</li> </ul>	<ul> <li>Mock exam at start of term, progress test at end of term</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> <li>Ensuring your child completes homework and brings the</li> </ul>	<ul> <li>Ongoing exam preparation and practise</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> <li>Ensuring your child completes homework and brings the</li> </ul>
<ul> <li>Progress test by half term and progress test at end of term</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> </ul>	<ul> <li>Mock exam at start of term, progress test at end of term</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> </ul>	<ul> <li>Ongoing exam preparation and practise</li> <li>HOW PARENTS CAN SUPPORT LEARNING</li> </ul>

TERM 1	TERM 2	TERM 3

Papers 1 and 2: Pure Mathematics 1	Papers 1 and 2: Pure Mathematics 1	Papers 1 and 2: Pure Mathematics 1
Paper 3: Statistics and Mechanics	Paper 3: Statistics and Mechanics	Paper 3: Statistics and Mechanics
Content overview	Content Overview	Core Pure 1: Further Maths Pure Paper 1
Indices and Surds	Integration continued	Content Overview
Quadratics	<ul> <li>Logarithms and Exponentials</li> </ul>	Vectors
• Simultaneous Equations & Inequalities	Variable Acceleration	Integration
• Cubic, Quartic and Reciprocal Graphs	Correlation	• Rigid Bodies
Straight Line Graphs	Regression	• Further Kinematics
• Equation of a Circle	Algebraic Fractions	• Complex Numbers
• Sampling	Sequences and Series	Matrices
Measures of Spread	• Functions	• Further Summations
Representing Data	Binomial Expansion	Volume of Revolution
Modelling in Mechanics	Radians	
Constant Acceleration Equations	Moments	
Probability	Random Variables	
• Factor Theorem and Proof	Hypothesis Testing	
Trigonometry	• Further Trigonometry	
Differentiation	Parametric Equations	
Integration	Normal Distribution	
• Forces and Motion	Projectiles	
Resolving Forces	Differentiation	
Vectors	Numerical Methods	
• Binomial Theorem		
ASSESSMENTS	ASSESSMENTS	ASSESSMENTS
Progress tests		
	Progress tests	End of Year Mock
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the	Ensuring your child completes homework and brings the	
correct Maths equipment to every lesson	correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson
Ensuring your child is able to access and use MyMaths	Ensuring your child is able to access and use MyMaths	
online	online	Ensuring your child is able to access and use MyMaths online

TERM 1	TERM 2	TERM 3
<b>Term 1</b> Papers 1 and 2: Pure Mathematics 2 Paper 3: Statistics and Mechanics <b>Content Overview</b> • Partial Fractions • Functions • Binomial Expansion • Radians • Trigonometry • Differentiation • Trigonometry continued • Statics and Dynamics	<b>Term 2</b> Papers 1 and 2: Pure Mathematics 2 Paper 3: Statistics and Mechanics <b>Content Overview</b> • Projectiles • Parametric Equations • Numerical Methods • Further Kinematics • Rigid Bodies • Vectors • Moments • Normal Distribution • Integration	Term 3         Papers 1 and 2: Pure Mathematics 2         Paper 3: Statistics and Mechanics         Content Overview         • Sequences and Series         • Integration continued         • Proof         • Regression
ASSESSMENTS	ASSESSMENTS	ASSESSMENTS
Progress test by half term and progress test at end of term	Mock exam at start of term, progress test at end of term	Ongoing exam preparation and practice
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use MyMaths online	Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use MyMaths online	Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use MyMaths online

#### YEAR 13 – FURTHER MATHS EDEXCEL

TERM 1	TERM 2	TERM 3
apers 1 and 2: Pure Mathematics 2 aper 3: Statistics and Mechanics aper 4: Core Pure Mathematics 1 <u>ontent overview</u> Complex Numbers & Argand Diagrams Roots of Polynomials Matrix Transformations Proof by Induction Series (Maclaurin, Taylor and Limits) 3D Vectors Further Complex Numbers Differential Equations Hyperbolic Functions Methods of Calculus Reducible Differential Equations	<ul> <li>Paper 5: Core Pure Mathematics 2</li> <li>Paper 6: Further Mechanics 1</li> <li>Paper 7: Further Pure Mathematics 1</li> <li><u>Content Overview</u></li> <li>Momentum and Impulse</li> <li>Work, Energy &amp; Power</li> <li>Hooke's Law</li> <li>Conics</li> <li>Inequalities</li> <li>Advanced Trigonometric Approaches</li> <li>Collisions</li> <li>Elastic Collisions</li> <li>Numerical Methods of Differential Equations</li> <li>Taylor Series</li> <li>Further Methods in Calculus</li> </ul>	Paper 7: Further Pure Mathematics 1 Content Overview REVISION
ASSESSMENTS  Progress tests	ASSESSMENTS	ASSESSMENTS
HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING	HOW PARENTS CAN SUPPORT LEARNING
Ensuring your child completes homework and brings the correct Maths equipment to every lesson	Ensuring your child completes homework and brings the correct Maths equipment to every lesson Ensuring your child is able to access and use MyMaths	Ensuring your child completes homework and brings the correct Maths equipment to every lesson

	Ensuring your child is able to access and use MyMaths online