

Madani Schools Federation – Mathematics (2021-2022) – Higher Schedule

2021/ 2022	AUTUMN		SPRING		SUMMER	
	HT1	HT2	HT3	HT4	HT5	HT6
Y7	<p>Area of study</p> <ul style="list-style-type: none">➤ Number <p>Key concepts</p> <p>Place Value / Order of Operations</p> <p>Whole Numbers (+/-/x/÷) / Worded Problems</p> <p>Decimal Calculations (+/-/x/÷)</p> <p>Types of Numbers / Negative Numbers</p> <p>Primes / Multiples / Factors</p> <p>Prime Factor Trees / LCM / HCF</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Algebra / Graphs <p>Key concepts</p> <p>Substitution / Simplifying</p> <p>Expand (single) / Factorise (linear)</p> <p>Making Formulas from Words / Using Formulas</p> <p>Solving Equations (one-step / two-step)</p> <p>Sequences - Calculating the nth term (linear)</p> <p>Coordinates (x, y) - four quadrants</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Fractions / Percentages / Ratio <p>Key concepts</p> <p>Fraction Basics (equivalent, simplify, convert)</p> <p>Fraction Calculations (+/-/x/÷)</p> <p>Fractions of Amounts (calc/no-calc)</p> <p>Percentages of Amounts (calc/no-calc)</p> <p>Ratio Calculations (simplify, share, recipes)</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Shape <p>Key concepts</p> <p>Properties of 2D / 3D Shapes</p> <p>Perimeter & Area (square, rectangle, triangle)</p> <p>Compound Shapes / Plans & Elevations</p> <p>Surface Area & Volume (cube, cuboid)</p> <p>Measuring & Drawing Angles</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Shape / Angles / Probability <p>Key concepts</p> <p>Angle Basics (line, point, triangle)</p> <p>Triangle Constructions</p> <p>Introduction to Transformations</p> <p>Probability Basics / Experimental / Listing Outcomes</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Data <p>Key concepts</p> <p>Types of Data (discrete / continuous)</p> <p>Mean, Mode, Median, Range</p> <p>Pictograms / Bar Charts</p> <p>Frequency Tables (calculate averages)</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test
	<p>Area of study</p> <ul style="list-style-type: none">➤ Number <p>Key concepts</p> <p>Revision of Four Operations (whole / decimal)</p> <p>Rounding (decimals places / significant figures)</p> <p>Accuracy & Estimating</p> <p>Basic Power Rules / Square Root / Cube Root</p> <p>Revision of Prime Factor Trees / LCM / HCF</p> <p>Introduction to Standard Form</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Algebra / Graphs <p>Key concepts</p> <p>Revision of Algebraic Notation (simplify / expand)</p> <p>Expand (double) / Factorise (quadratic)</p> <p>Rearranging Formulae (simple)</p> <p>Solving Equations (brackets / unknown both sides)</p> <p>Introduction to Inequalities</p> <p>Conversion Graphs / Real Life Graphs</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Fractions / Percentages / Ratio <p>Key concepts</p> <p>F/D/P Conversions / Worded Problems</p> <p>Revision of F/P (amounts / inc / dec / multi)</p> <p>Percentages (original value / percentage change)</p> <p>Best Buy / Recipes / Reading Timetables</p> <p>Unit Conversions / Maps / Scale Drawings</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Shape <p>Key concepts</p> <p>Perimeter & Area (trapezium, parallelogram)</p> <p>Revision of Perimeter & Area / Compound Shapes</p> <p>Introduction to Circles</p> <p>Surface Area & Volume (triangular prism, cylinder)</p> <p>Parallel Lines</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Angles / Transformations / Probability <p>Key concepts</p> <p>Angles in Polygons</p> <p>Translation / Rotation / Reflection</p> <p>Enlargement of Shapes</p> <p>Frequency Trees / Introduction to Venn Diagrams</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Data <p>Key concepts</p> <p>Two-Way Tables / Line Graphs</p> <p>Time Series / Pie Charts</p> <p>Scatter Graphs (correlation)</p> <p>Grouped Frequency Tables (calculate frequencies)</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test
	<p>Area of study</p> <ul style="list-style-type: none">➤ Number <p>Key concepts</p> <p>Worded Problems (whole numbers / decimal)</p> <p>Types of Numbers / BODMAS / Negative Numbers</p> <p>Simple / Compound Interest</p> <p>Revision of F/D/P (mixed / worded)</p> <p>Powers & Roots (negative, fractional)</p> <p>Manipulating Surds (simplify, rationalise)</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Algebra <p>Key concepts</p> <p>Simplifying / Expanding / Substitution</p> <p>Factorising (linear / quadratic / D.O.T.S.)</p> <p>Solve by using Quadratic Formula</p> <p>Completing the Square / Turning Points</p> <p>Solving Equations (mixed / worded)</p> <p>Rearranging Formulae (harder)</p> <p>Algebraic Fractions (+/-/x/÷)</p> <p>Functions (composite, inverse, algebraic)</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Constructions / Shape <p>Key concepts</p> <p>Constructions</p> <p>Loci (rules)</p> <p>Bearings / Scale Drawings</p> <p>Pythagoras' Theorem (2D) - ext 3D</p> <p>Trigonometry (2D) - ext 3D</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Data <p>Key concepts</p> <p>Box Plots / Cumulative Frequency</p> <p>Histograms (frequency density)</p> <p>Time Series / Scatter Graphs</p> <p>Interpreting Data / Comparing Data</p> <p>Probability Basics / Experimental / Product Rule</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Probability <p>Key concepts</p> <p>Listing Outcomes / Frequency Trees</p> <p>The AND / OR Rules (dependent / independent)</p> <p>Tree Diagrams / Conditional Probability</p> <p>Sets & Venn Diagrams</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test	<p>Area of study</p> <ul style="list-style-type: none">➤ Angles / Circles <p>Key concepts</p> <p>Revision of Graphs & Charts</p> <p>Revision of Angle Rules (mixed / worded)</p> <p>Circle Theorems - Rules</p> <p>Circle Theorems - Proof</p> <p>Assessment method</p> <ul style="list-style-type: none">➤ End of Topic Test

<div>Area of study<ul style="list-style-type: none">➤ Number</div> <div>Key concepts</div> <div>Revision of Prime Factor Trees / LCM / HCF</div> <div>Revision of Powers & Roots / Manipulating Fractions</div> <div>Fractions & Recurring Decimals</div> <div>Rounding / Estimation / Iteration</div> <div>Upper & Lower Bounds</div> <div>Standard Form Calculations</div>	<div>Area of study<ul style="list-style-type: none">➤ Algebra / Shape</div> <div>Key concepts</div> <div>Sequences (linear / quadratic)</div> <div>Inequalities (linear / quadratic)</div> <div>Graphical Inequalities / Proof</div> <div>Simultaneous Equations (linear / quadratic)</div> <div>2D Shapes / Perimeter & Area</div> <div>Circles - Sectors / Segments</div>	<div>Area of study<ul style="list-style-type: none">➤ Graphs</div> <div>Key concepts</div> <div>Coordinates / Midpoints</div> <div>Straight Line Graphs (gradient / intercept)</div> <div>Parallel Lines / Perpendicular Lines</div> <div>Plotting Graphs (linear / quadratic)</div> <div>Harder Graphs / Circle Graphs</div>	<div>Area of study<ul style="list-style-type: none">➤ Graphs / Percentages</div> <div>Key concepts</div> <div>Graph Transformations</div> <div>Distance Time Graphs</div> <div>Velocity Time Graphs</div> <div>Real Life Graphs / Gradients of Real Life Graphs</div> <div>Revision of Percentages (mixed / worded)</div>	<div>Area of study<ul style="list-style-type: none">➤ Ratio / Proportion</div> <div>Key concepts</div> <div>Revision for Mock Exams</div> <div>Ratio Calculations (mixed / worded)</div> <div>Direct / Inverse Proportion</div> <div>Unit Conversions / Speed, Density, Pressure</div> <div>Revision for Mock Exams</div>	<div>Area of study<ul style="list-style-type: none">➤ Transformations</div> <div>Key concepts</div> <div>Translation / Rotation / Reflection</div> <div>Enlargement of Shapes (negative, fractional)</div> <div>Work Experience</div>
<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>
<div>Area of study<ul style="list-style-type: none">➤ Shape</div> <div>Key concepts</div> <div>Congruent / Similar Shapes</div> <div>Pythagoras' Theorem / Trigonometry (2D)</div> <div>Pythagoras' Theorem / Trigonometry (3D)</div> <div>Sine Rule / Cosine Rule</div> <div>Mixed Worded Problems (Pyth/Trig/Sin/Cos)</div> <div>Vectors</div>	<div>Area of study<ul style="list-style-type: none">➤ Revision 1</div> <div>Key concepts</div> <div>Topic Revision: Number</div> <div>Topic Revision: Number & Assessment</div> <div>Topic Revision: Algebra</div> <div>Topic Revision: Algebra & Assessment</div> <div>Topic Revision: Graphs / Ratio</div> <div>Topic Revision: Graphs / Ratio & Assessment</div> <div>Mock Past Paper Practice: Set 1</div> <div>Mock Past Paper Practice: Set 2</div>	<div>Area of study<ul style="list-style-type: none">➤ Revision 2</div> <div>Key concepts</div> <div>Topic Revision: Data / Probability</div> <div>Topic Revision: Data / Probability & Assessment</div> <div>Topic Revision: Geometry</div> <div>Topic Revision: Geometry & Assessment</div> <div>Mock Past Paper Practice: Set 3</div> <div>Mock Past Paper Practice: Set 4</div>	<div>Area of study<ul style="list-style-type: none">➤ Past Papers 1</div> <div>Key concepts</div> <div>Past paper practice 2016</div> <div>Past paper practice 2017</div> <div>Mock Past Paper Practice: Specimen</div>	<div>Area of study<ul style="list-style-type: none">➤ Past Papers 2</div> <div>Key concepts</div> <div>Past paper practice 2018</div> <div>Past paper practice 2019</div> <div>Mock Assessment Exams</div>	<div>Area of study<ul style="list-style-type: none">➤ Examinations</div> <div>Key concepts</div> <div>Exam Revision</div>
<div>Assessment method<ul style="list-style-type: none">➤ End of Topic Test</div>	<div>Assessment method<ul style="list-style-type: none">➤ Past Papers</div>	<div>Assessment method<ul style="list-style-type: none">➤ Past Papers</div>	<div>Assessment method<ul style="list-style-type: none">➤ Past Papers</div>	<div>Assessment method<ul style="list-style-type: none">➤ Past Papers</div>	<div>Assessment method<ul style="list-style-type: none">➤ Past Papers</div>

NOTES	AREAS OF STUDY	KEY CONCEPTS	ASSESSMENT METHOD