Parkside School Curriculum Map 2025/6

Mathematics

Year 11: Foundation

Half term 1: Autumn 1	Half term 2: Autumn 2	Half term 3: Spring 1	Half term 4: Spring 2	Half term 5: Summer 1
Transformations **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Similar shapes • Congruent triangles • Enlargement drawing and describing **Prior knowledge:** • Translation using vectors • Rotation: draw/ describe rotation using a direction and a centre of rotation • Reflection: describe and draw given a line of reflection **How will this be assessed?** See Box 2 --- **Quadratic graphs** **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Draw quadratic graphs • Recognise roots and turning points in graphs **Prior knowledge:** • Factorise and expand double brackets • Drawing linear graphs • Substitution **How will this be assessed?** See Box 2	**Representing data** **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Stem and leaf diagrams • Pie charts • Scatter graph **Prior knowledge:** • Pictograms • Bar charts • Two way tables • Frequency polygons • Correlation and how to draw a line of best fit • Mode, median, mean and range • Using a protractor and measuring angles • Plot coordinates **How will this be assessed?** See Box 2 --- **Constructions and Loci** (will run into Spring 1) **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Use a compass • Construct triangles • Bisect a line • Bisect an angle • Construct Loci **Prior knowledge:** • Use a protractor and ruler **How will this be assessed?** See Box 2	**Inequalities** **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Draw and interpret inequalities • Inequalities on a number line • Solve linear inequalities • Solve simultaneous equations • Draw inequalities on a graph **Prior knowledge:** • Solve linear equations • Draw linear graphs **How will this be assessed?** See Box 2	**Revision/ Exam practice** **Purpose:** To use Question Level Analysis from mock papers completed and teach a topic/s that students do not fully understand. The list of topics will run from Year 9 up to Year 11 Inequalities. **Overview of the knowledge and skills covered in this unit:** Will be based on the Question Level Analysis, please speak to your maths teacher about what topics are being re-taught this half term. **How will this be assessed?** Exam questions will be used to check understanding/ reteach again where needed.	**Revision/ Exam practice** **Purpose:** To use Question Level Analysis from mock papers completed and teach a topic/s that students do not fully understand. The list of topics will run from Year 9 up to Year 11 Inequalities. **Overview of the knowledge and skills covered in this unit:** Will be based on the Question Level Analysis, please speak to your maths teacher about what topics are being re-taught this half term. **How will this be assessed?** Exam questions will be used to check understanding/ reteach again where needed.

Box 1:	**Box 2:**
Designed to reinforce foundational concepts from Years 7, 8, and 9, each unit actively extends students' mathematical understanding into real-world applications.	Each unit concludes with a post-assessment. Additionally, a comprehensive mock assessment will be held in Autumn Term 2, covering all knowledge from the start of Year 9 through to the Year 11 Spring Term 2.

Parkside School Curriculum Map 2025/6

Mathematics

Year 11: Higher

Half term 1: Autumn 1

Transformations

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Similar shapes
- Congruent triangles
- Enlargement drawing and describing
- Negative enlargement
- Fractional enlargement
- Combined transformations
- Area and volume of similar shapes

Prior knowledge:
- Translation using vectors
- Rotation: draw/ describe rotation using a direction and a centre of rotation
- Reflection: describe and draw given a line of reflection
- Area and volume of shapes

How will this be assessed?
See Box 2

Quadratic graphs

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Draw quadratic graphs
- Recognise roots and turning points in graphs
- Expand 3 brackets
- Quadratic formula
- Complete the square

Prior knowledge:
- Factorise and expand double brackets
- Drawing linear graphs
- Substitution
- How to use a calculator

How will this be assessed?
See Box 2

Half term 2: Autumn 2

Constructions and Loci (will run into Spring 1)

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Use a compass
- Construct triangles
- Bisect a line
- Bisect an angle
- Construct Loci

Prior knowledge:
- Use a protractor and ruler

How will this be assessed?
See Box 2

Inequalities

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Draw and interpret inequalities
- Inequalities on a number line
- Solve linear inequalities
- Solve simultaneous equations
- Draw and shade inequalities on a graph
- Solve quadratic inequalities
- Solve quadratic simultaneous equations

Prior knowledge:
- Solve linear and quadratic equations
- Draw linear and quadratic graphs

How will this be assessed?
See Box 2

Advanced Trigonometry

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:

Half term 3: Spring 1

Functions and Advanced Graphs

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Recognise quadratics
- Evaluate functions
- Graphs of a circle
- Trigonometric graphs
- Transformation of graphs
- Identify and draw exponential graphs
- Inverse functions
- Compositie functions

Prior knowledge:
- Transformations of shapes
- Substitution

How will this be assessed?
See Box 2

Circle Theorems

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- To name and use all 10 circle theorem rules 1) Two radii form an isosceles triangle, 2) The perpendicular bisector of a chord passes through the radius, so find the centre of a circle by bisecting two chords, 3) A tangent meets a radius at 90o, 4) The angle at the centre is double the angle at the circumference when subtended from the same two points, 5) The angle in a semi circle is always 90o, 6) Angles in the same segment are equal, where angles are at the circumference and subtended from the same points, 7) Opposite angles in a cyclic quadrilateral add up to 180o, 8) Tangents drawn from the same point to opposite sides of a circle are the same length, 9) The angle between a chord and a tangent is the

Half term 4: Spring 2

Vectors

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Vector notation, multiply, adding and subtracting
- Vector geometry

Prior knowledge:
- Translation and vectors
- Substitution
- Ratio
- Parallel lines

How will this be assessed?
See Box 2

Proof

Purpose:
See Box 1

Overview of the knowledge and skills covered in this unit:
- Disprove statements by finding counter examples
- Prove expressions are odd, even or multiples
- Recurring decimal proof
- Interpret and answer algebraic expressions and proof

Prior knowledge:
- Index laws
- Averages
- Inequalities
- Properties of shapes
- Recurring decimals
- Write expressions

How will this be assessed?
See Box 2

Half term 5: Summer 1

Revision/ Exam practice

Purpose:
To use Question Level Analysis from mock papers completed and teach a topic/s that students do not fully understand. The list of topics will run from Year 9 up to Year 11 Inequalities.

Overview of the knowledge and skills covered in this unit:
Will be based on the Question Level Analysis, please speak to your maths teacher about what topics are being re-taught this half term.

How will this be assessed?
Exam questions will be used to check understanding/ reteach again where needed.

Representing data **Purpose:** See Box 1 **Overview of the knowledge and skills covered in this unit:** • Stem and leaf diagrams • Pie charts • Scatter graph • Box plots • Histograms **Prior knowledge:** • Pictograms • Bar charts • Two way tables • Frequency polygons • Correlation and how to draw a line of best fit • Mode, median, mean and range • Using a protractor and measuring angles • Plot coordinates	• Sine rule • Cosine rule • Area of a triangle using 0.5absinc • Pythagoras in 3D • Trigonometry in 3D **Prior knowledge:** • To know what sin/cos/ tan are • Pythagoras • Trigonometry • Exact Trigonometry **How will this be assessed?** See Box 2	same as the angle formed in the opposite segment, 10) Alternate segment theory) • Understand the proof of circle theorems **Prior knowledge:** • Understand parts of a circle • Know shape properties of quadrilaterals **How will this be assessed?** See Box 2		

Box 1:	**Box 2:**
Designed to reinforce foundational concepts from Years 7, 8, and 9, each unit actively extends students' mathematical understanding into real-world applications.	Each unit concludes with a post-assessment. Additionally, a comprehensive mock assessment will be held in Autumn Term 2, covering all knowledge from the start of Year 9 through to the Year 11 Spring Term 2.