GHS Mathematics Department
Term 2, 2026
Form 5/ Accelerated Form 4

Week	Topic	Learning Objectives
1	Circle Theorems	1. Explain the theorems associated with a circle 2. Solve problems using the theorems related to the properties of a circle
2 - 4	Vectors	1. Define a vector 2. Give the different ways in which a vector may be represented 3. Add and subtract vectors using component form, that is, vectors written as 2 × 1 column matrices 4. Add vectors by the triangle and parallelogram laws 5. Multiply a vector by a scalar number 6. Recognize that a scalar may be distributed over addition of vectors 7. Recognize zero vectors and the negative of a vector 8. Determine the magnitude of a vector 9. Identify parallel vectors 10. Associate a position vector $\overrightarrow{OP} = \begin{pmatrix} a \\ b \end{pmatrix}$ with given point P (a, b) where O is the origin (0, 0) and represent this vector on graph 11. Associate a unit vector as a vector of unit length 12. Use vectors to solve problems in geometry (e.g. proving that points are collinear, proving line segments parallel, prove shapes to be a parallelogram, etc.)
4 – 6	Transformation	1. Define transformation 2. State the relationship between object and image after a geometric transformation 3. Translation a. Define translation and give the properties of translation b. Translate a point/object in the x and y plane c. Identify coordinates and image/object d. Identify translation vector (column vector) given a figure and its image e. State the coordinates of the image/object/translation by using the formula: Object + Translation = image 4. Reflection a. Define reflection b. State the properties of reflection

		c. Reflect a point/shape in the given lines, for example, $x-axis, y-axis, y=x, y=-x, x=k, y=c$ d. Identify mirror lines given the object and the image 5. Rotation a. Define rotation b. List the properties of rotation c. Rotate a point/object about a given centre and in a given direction d. Find the centre, angle and direction of rotation given the object and its image 6. Enlargement a. Define an enlargement b. List the properties of enlargement c. Produce an enlargement when given object, centre of enlargement and scale factor d. Find centre of enlargement and scale e. Factor when object and its image are given 7. Identify each transformation above given object and image 8. State the relationship between an object and its image as the result of a composition of transformation 9. Perform successive transformations combining any two of enlargement, translation, rotation and reflection
7	Transformational Matrices	1. Determine and use the 2 × 2 matrices associated with the following: enlargement, rotation, reflection 2. Determine the 2 × 2 matrix representation of the single transformation which is equivalent to the composition of two linear transformations in a plane (where the origin remains fixed) 3. Locate the image of a set of points when each transformation is performed using a transformation matrix
8	Measurement: Surface area & Volume of Solids	1. Identify a solid shape 2. Investigate each solid shape for sides, edges and vertices 3. Define cross - section 4. Calculate the total surface area of a cube, cuboid, cylinder, prism, pyramid, cone, sphere 5. Calculate the volume of cube, cuboids, cylinder, and other prisms 6. Calculate the volume of pyramids, cones and spheres

		7. Solve problems involving Solids
9	Linear Programming	1. Draw the graph of linear inequalities 2. Use Linear programming techniques to solve problems involving two variables 3. Use linear programming to find maximum profit/minimum cost

Accelerated Form 4 and Form 5 (Easter classes)

Topic	Learning Objectives
Constructions	1. Construct with compasses only 60º, 30º, 45º, 90º, 120º, etc. 2. Construct the perpendicular bisector of a given line 3. Construct triangles with compasses and without the aid of a protractor when: b. The measurements of the three sides are given c. The measurements of two sides and an angle are given d. The measurements of one side and two angles are given 4. Construct quadrilaterals 5. Construct parallel lines
Travel graphs	1. Draw and interpret distance – time graphs 2. Draw and interpret speed – time graphs