Ultimate Shapes KIWAMI Curriculum

Grade 1	❖Sort, classify and describe the object on the basis of number of the objects
	❖Sort, observe and classify objects
	❖Visualize nets of dice
	❖Define angle : right-angle
Grade 2	❖Define side, vertex, angle. Understand properties of rectangle, square, triangle
	❖Identify shapes from pictures in different positions and orientations
	❖Calculate the length of sides in cubes and cuboids
	❖Know angles are measured in degrees
Grade 3	❖Introduce concepts of length and properties of square, rectangle and circle
	❖Measure and calculate areas and perimeters of basic shapes
	❖Introduce common solids such as cubes and cuboids
	❖Define sides, vertices, faces of solid
	❖Visualize common 2D shapes and 3D solids
	❖Find the size of angle formed by the long and short hand of a clock
	❖Introduce parallel and perpendicular lines, angles : corresponding, vertically opposite
Grade 4	❖Convert unit of measurement (cm, m) from larger to smaller and vice versa
	❖Define the concepts of solids, volume of cubes and cuboids
	❖Define properties of pyramid, cylinder and their nets
	❖Measure and calculate angles formed by a paper folded back
	❖Recapitulate parallel and perpendicular line, angles : corresponding, vertically opposite
Grade 5	❖Define properties of various quadrilaterals : trapezium, parallelogram, rhombus
	❖Recapitulate properties of a circle - centre, radius, diameter, circumference
	❖Introduce standard units of measuring volume and convert units (L, mL, dL) and the methods of finding the volume of cube, cuboid
	❖Visualize nets of dice, common 2D shapes and 3D solids
	❖Define properties of various triangles and angles : interior angle, the exterior angle theorem
	❖Understand that the sum of the interior angles of a triangle and a quadrilateral
	❖Define moving figures, where students are asked to find the area obtained after a rectangle makes a rotation
Grade 6	❖Introduce the method of finding the area of a circle
	❖Introduce the method of finding the number of diagonal lines in a polygon
	❖Match appropriate nets with their corresponding 3D figures
	❖Introduce the interior angle of a polygon
Grade 7	❖Define circumference and area of a circle and sector
	❖Recapitulate standard units of measuring length and area (cm^2, m^2, ha, km^2)
	❖Introduce the method of finding the volume of cylinder, pyramid, a solid of revolution
	❖Visualize the cutting surface of 3D figures
	❖Application of volume in practical problems
	❖Introduce nets of pyramid and cylinder
	❖Introduce the concept of surface area of cylinder and pyramid
Grade 8	❖Identify and interpret patterns in shapes and apply the patterns in solving word problems
	❖Introduce the concept of congruence : Understand three conditions for congruent triangles
	❖Introduce the concept of scale factor : Know that maps are expressed in a scale factor
	❖Define circle, central angle of a circle, circumference angle of a circle
	❖Apply ratios to find the length and area of triangles