

Year 6 Shape and Measurement Rubric

	Describes and constructs 2D shapes	Uses standard units of measurement to solve problems in real-life situations involving 2D	Describes and constructs 3D shapes	Uses standard units of measurement to solve problems in real-life situations involving 3D shapes	Understands the relationships between units of measurement.
Advanced	<p>Labels the following components on a circle – centre, arc, radius, diameter, circumference, chord, segment, sector, tangent and secant</p> <p>Identifies and describes the properties of more complex regular and irregular shapes (hendecagon 11, dodecagon 12, tridecagon 13, etc.)</p>	<p>Solves problems involving the area of irregular polygons and circles.</p> <p>Develops a rule for finding the approximate area of a circle.</p>	<p>Identifies patterns and relationships in the properties of complex 3D shapes</p> <p>Calculates the volume of cylinders, and triangular prisms</p> <p>Can accurately reduce or enlarge 3D shapes to scale</p>	<p>Applies knowledge of regular polyhedra and compound shapes to solve problems involving mass, capacity and volume, including cubes, rectangular prisms, triangular prisms and cylinders</p> <p>Use algebraic expressions to solve problems involving, capacity and volume of cubes, rectangular prisms, triangular prisms and cylinders</p> <p>Accurately uses tools such as protractors, compasses, rulers, measuring tapes, trundle wheels, scales etc. to solve complex real life problems.</p>	<p>Converts lengths units (mm and centimetres) involving decimals and/or skips units (eg. mm to km).</p> <p>Converts mass units (grams to kilograms) involving decimals and/or skips units (eg. grams to tonnes).</p> <p>Converts capacity units (ml to litres) involving decimals and/or skips units.</p>

<p style="text-align: center;">3 = Proficient (Phase 4)</p>	<p>Accurately measures and constructs angles in degrees using a protractor (right, acute, obtuse, straight, reflex)</p> <p>Draws circles accurately using a compass</p> <p>Labels the following components on a circle – centre, arc, radius, diameter, circumference, chord, segment and sector</p> <p>Identifies and describes the properties of (vertices, sides, angles, parallel, regular, irregular) more complex regular and irregular shapes (nonagon, decagon, ellipse,)</p> <p>Describes and constructs equilateral, isosceles and scalene triangles</p> <p>Can reduce or enlarge 2D shapes to scale</p>	<p>Applies knowledge of regular polygons and compound shapes to solve problems involving area and perimeter.</p> <p>Use algebraic expressions to solve problems involving perimeter and area.</p>	<p>Uses standard language to describe 3D shapes.</p> <p>Uses standard measurements to accurately weigh various objects</p> <p>Measures and calculates the volume of cubes and rectangular prisms</p> <p>Identifies patterns and relationships in the properties of polyhedra e.g. $(F+V=E-2)$</p> <p>Can accurately draw 2D representations of 3D shapes</p> <p>Creates and models how a 2D net converts to a 3D shape and vice versa.</p>	<p>Applies knowledge of regular polyhedra and compound shapes to solve problems involving surface area, mass, capacity and volume, including cubes, rectangular prisms and triangular prisms</p> <p>Use algebraic expressions to solve problems involving, capacity and volume of cubes and rectangular prisms.</p> <p>Accurately uses tools such as protractors, compasses, rulers, measuring tapes, trundle wheels, scales etc. to solve real life problems.</p>	<p>Consistently converts lengths units (mm to metres)</p> <p>Consistently converts mass units (grams to kilograms)</p> <p>Consistently converts capacity units (ml to litres)</p>
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Consolidating	<p>Measures and constructs angles in degrees using a protractor (right, acute, obtuse, straight, reflex) with some accuracy</p> <p>Draws circles using a compass with some accuracy</p> <p>Labels some of the following components on a circle – centre, arc, radius, diameter, circumference, chord, segment and sector</p> <p>Identifies and describes equilateral, isosceles and scalene triangles</p> <p>Can reduce or enlarge 2D shapes to scale with some accuracy</p> <p>Can recognise and describe the properties of basic regular and irregular shapes (rectangle, square, triangle, circle, pentagon, hexagon, heptagon, octagon)</p>	<p>Applies knowledge of regular polygons and compound shapes to simple solve problems involving area and/or perimeter.</p> <p>Uses algebraic expressions to solve simple problems involving perimeter and area.</p>	<p>Uses standard language to describe simple 3D shapes.</p> <p>Uses standard measurements to weigh various objects with some accuracy</p> <p>Measures and calculates the volume of cubes and rectangular prisms with some accuracy</p> <p>Can draw 2D representations of 3D shapes with some accuracy</p> <p>Can reduce or enlarge 3D shapes to scale with some accuracy</p>	<p>Applies knowledge of regular polyhedra and compound shapes to solve problems involving mass, capacity and volume, including cubes and rectangular prisms</p> <p>Use algebraic expressions to attempt to solve problems involving, capacity and volume of cubes and rectangular prisms.</p> <p>With some accuracy, uses tools such as protractors, compasses, rulers, measuring tapes, trundle wheels, scales etc. to solve simple real life problems.</p>	<p>Converts lengths units (mm and centimetres)</p> <p>Converts mass units (grams to kilograms)</p> <p>Converts capacity units (ml to litres)</p> <p>*May have some errors</p>
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Beginning	<p>Names some basic shapes (rectangle, square, triangle, circle) and describes their basic properties (number of sides and corners)</p> <p>Identifies some angles (right, acute, obtuse, straight, reflex) with some consistency</p>	<p>Attempts to solve simple problems involving perimeter (may be able to identify operation only)</p> <p>With support, uses a formula to find the area of a square or rectangle</p>	<p>Uses basic language to describe simple 3D shapes.</p> <p>With support, uses standard measurements to weigh various objects with some accuracy</p> <p>Is able to define 3D shapes</p> <p>Can match 2D representations of 3D shapes with some accuracy</p>	<p>Uses water and measuring jugs to identify volume and capacity (through displacement) of 3D objects</p> <p>With support, can solve simple problems involving mass, volume and capacity</p>	<p>With support, converts lengths units (mm and centimetres) with some accuracy</p> <p>With support, converts mass units (grams to kilograms) with some accuracy</p> <p>With support, converts capacity units (ml to litres) with some accuracy</p>
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