



Shape, Position and Movement

The Shape, Position and Movement Progression Overview:

- Provides a **brief overview** of progression within Shape, Position and Movement
- **Aligns with** the Shape, position, and Movement *Progression Pathway*
- **Should be used** in conjunction with the *Shape, Position and Movement Progression Pathway*
- **Should not be used** as a standalone document.
- **Can be used** as part of **professional dialogue** in relation to **Teacher Professional Judgement**

	Early		First			Second		
	Phase 1 – Prerequisite	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
	Key vocabulary: face, edge, side, vertex / vertices, point, base, surface, angle, diagonal, square, rectangle, triangle, circle, oval, pentagon, hexagon, heptagon, octagon, regular polygon, irregular polygon, cube, cuboid, sphere, cylinder, cone, prism, pyramid, hemisphere, semi hemisphere, rolls, stacks, slides, turns, flat, curved, long, radius, diameter, circumference							
Properties of 2D Shapes and 3D Objects	<ul style="list-style-type: none"> I have investigated simple 2D shapes and 3D objects through play. I can use shapes and objects in creative ways according to their properties e.g. ones that can roll, stack, print etc. I can investigate drawing basic shapes (square, triangle, rectangle, circle) I can sort and match simple 2D shapes and 3D objects. I can incorporate 2D shapes with growing accuracy in creative tasks (draw around) 	<ul style="list-style-type: none"> I can use shapes creatively. I can describe shapes and objects using key vocabulary (flat, curved, point) I can compare simple 2D shapes and 3D objects according to their properties (turn to fit together, stack, roll etc.) I can incorporate 2D shapes with growing accuracy in creative tasks (from memory/description) I can select appropriate 3D objects in model building. I can sort 2D shapes and 3D objects using my own and others' criteria. I can describe 2D shapes and 3D objects using appropriate vocabulary (including but not necessarily shape name) I can identify and match everyday objects to 3D objects (cans/cylinder, balls/sphere etc.) 	<ul style="list-style-type: none"> I can identify a 2D shape that is a face of a 3D object. I can identify 2D shapes in cross sections of objects. I can look at flat pictures of 3D shapes and understand that not all the objects can be seen. I can draw 2D shapes from memory. I can recognise differences between similar 2D shapes (square/rectangle, circle/oval) 	<ul style="list-style-type: none"> I can use mathematical language to describe the properties of a range of 2D shapes and 3D objects including side, face, edge, base. I can be creative with 2D shapes and 3D objects and use mathematical language to describe their strength and stability in tasks (build a model house etc.) I can recognise 2D shapes in different planes. I can draw a cross section of a real object (cut and check, orange is a circle) I can look at 3D objects and match to drawings or diagrams. I can use shapes to create a tiling pattern without gaps (tessellation) I can recognise repetition of shapes and objects that create patterns. 	<ul style="list-style-type: none"> I can use mathematical language to describe 2D shapes and 3D objects including vertex, surface, angle (plus phase 3 vocabulary) I can name, identify, and classify a range of simple 2D shapes and 3D objects and recognise these shapes in different orientations and sizes. I can sort, describe, and draw 2D shapes and 3D objects. I can identify examples of tiling in the environment and apply knowledge of the features of 2D shapes to create tiling patterns incorporating two different shapes. I can explain why a shape will not tile without gaps. 	<ul style="list-style-type: none"> I can use a range of mathematical language to describe 2D shapes and 3D objects (regular, irregular, vertices, vertex, edges, faces, diagonals, angles) appropriately. I can visualise 2D shapes and 3D objects following a description (e.g. create mental images that match a criteria) I can identify 2D shapes and 3D objects in the environment noting their purpose (bridges, buildings) I can create skeletons of a variety of 3D objects. I can create 3D objects using a variety of different media (skeletons, nets, models) I can discuss the effect of geometric shapes in art and design (architecture and art) I can create models and drawings that fulfil criteria related to faces, edges, angles (annotate model/drawing) 	<ul style="list-style-type: none"> I can create nets of 3D objects using 3D objects to create a template. I can discuss similarities and difference between regular and irregular polygons. I can create skeletons of a prism and pyramid from a set of measurements. I can draw 2D shapes and representations of 3D objects using square and isometric paper. I can match prisms and pyramids with their nets. I can interpret 2D drawing of 3D models using cubes (ability to build the unseen sections) I can identify corresponding faces on a 3D model from a net without folding the net (e.g. where would the red face be on a cube) I can link features such as rigidity and flexibility to structures (e.g. benefits of 2D shapes and 3D objects in construction) I can use technology to create 2D shapes and 3D objects and understand that not all parts may be seen Use and understand the terms circumference, radius, and diameter to describe a circle 	<ul style="list-style-type: none"> I can use a range of mathematical language to describe 2D shapes and 3D objects (regular, irregular, vertices, vertex, edges, faces, diagonals, angles) correctly and consistently. I can sort regular and irregular polygons. I can describe and model regular and irregular polygons. I can draw prisms, pyramids, cuboids, cones, and cubes recognisably using various mathematical tools. I can use the relationship between diameter and radius to draw circles of different sizes using a pair of compasses
	Early		First			Second		
	Phase 1 – Prerequisite	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 7
	Key Vocabulary: under, between, right, left, forward, turn, clockwise, anticlockwise, position, direction, symmetry, line of symmetry, tessellation, map, grid, compass, route, angle, right angle, coordinates, supplementary, corresponding, complementary, acute, obtuse, right, reflex, straight							
Angle, Symmetry and Transformation	<ul style="list-style-type: none"> I can respond appropriately to positional and orientational language (under, on, near, between, through, right and left) I can respond appropriately to language of movement (forward, backwards, around, past, turn) I can use language of position, movement, and orientation. I can find directions on mazes on paper and digitally. I can create symmetrical patterns by folding. I can create tessellating patterns using shapes 	<ul style="list-style-type: none"> I can create simple maps in play. I can identify some features on informal maps (e.g. during outdoor learning) I can describe turns using directional language (half turn, clockwise, anticlockwise) I can give directions in the correct order. I can describe the location of an object using positional language. I can identify patterns and pictures that show symmetry (one line of symmetry) I can explain if a shape is symmetrical or not. I can use technology to create symmetrical patterns. I can use programmable technology for directions. 	<ul style="list-style-type: none"> I can place key features on a map following instructions. I can find key features on a map (path, buildings) I can follow directions that give between as location (the car is between the house and the road) I can use language of position, movement and orientation with increasing accuracy and complexity. I can create symmetrical patterns by sliding, flipping, and turning 2D shapes. I can use repeated multiple copies of 2D shapes to give a symmetrical pattern. I can identify symmetry in pictures, patterns, and the environment. I can find right angles in the environment. 	<ul style="list-style-type: none"> I can investigate grids on simple maps. I can explore the four main point of the compass. I can recognise that grid references give position of a square. I can explain why grid references are used. I can plot grid references. I can find grid references. I can give instructions for directions on paper and using digital technology. I can identify a line of symmetry. I can use mirrors to check for symmetry in patterns. I can visualise why a shape is symmetrical by imagining a fold. I can describe turns using directional language. I can describe a right angle as 90 degrees. I can attempt to give and draw a bird's eye view of a route (simple map) 	<ul style="list-style-type: none"> I can use grid references to locate a position on a map. I can explore positional language in relation to compass points and their appropriate angles. I can explore relevant maps and identify features using a legend/key. I can create simple grid maps with legends/keys. I can discuss location and routes using appropriate language. I can use technology to follow and create routes. I can create symmetrical patterns with more than line of symmetry. I understand that an angle is a measure of rotation. I can use mathematical language to describe angles (acute, obtuse, reflex, straight) I can explore right angles and straight angles in relation to turns (90/180) I can use informal methods to estimate, compare, measure, and describe the size of angles in the environment. I can predict the end point of a sequence of movements (2 forward, turn left 90 degrees, two back) 	<ul style="list-style-type: none"> I can use multiples of 45 degrees to give directions. I can use distance and directions including angles on maps. I can use co-ordinates on a grid to identify and plot location. I can give clear instruction for locating and moving objects in the environment or on maps/plans. I can interpret relevant maps to find my way around an environment in real life. I can place or describe key features on a map with accuracy. I can visualise and reproduce the folds and cuts to make complex symmetrical patterns (e.g. pop-up cards and snowflakes) I can describe the angle of a turn 	<ul style="list-style-type: none"> I can relate angles of 45 degrees to the 8-point compass rose. I can use conventional maps to find location and routes that meet criteria (e.g. safest route, closest post office) I can record routes that involve turning. I can explore scale. I can identify and describe lines of symmetry in 2D shape. I can take a shape that already tessellates and change it using transformations (slide, flip, turn) to create a new shape that still tessellates. I can produce designs that exhibit a specified symmetry, translation, or reflection (e.g. fold paper, use mirror or computer graphic) I can experiment with protractors to measure angles. I can explore acute, obtuse, and reflex angles by comparing to right angles and straight angles. I can explore complementary, corresponding, and supplementary angles 	<ul style="list-style-type: none"> I can use simple scale to calculate actual size or distance (e.g. 1cm = 2km) I can enlarge models made with cubes to a small whole number scale (e.g. double size of model) I can create routes and follow that use 8-point compass directions. I can visualise movements of objects through different orientations (e.g. imagine what a shape would look like if it rotated 90 degrees left) I can create and explain complex symmetrical patterns and tessellation. I can measure and draw angles accurately using a protractor to within +/-2 degrees. I know the relationship between complementary, corresponding, and supplementary angles and use this information to calculate missing angles. I can describe and use the sum of the angles in a triangle and quadrilaterals in problem solving activities. I can calculate interior and exterior angles.