## Geometry - Properties of shapes

shapes in a number of different contexts.  Identify the 2D shapes squares, circles and triangles and triangles.  Begin to identify the 3D shapes: cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  Talk about and discuss the properties of shapes.  Talk about and discuss the properties of shapes.  EYFS  Create constructions with 3D shapes and explore the properties of shapes and descuse the properties of shapes and explore the properties of shapes and properties of symmetry properties		IDENTIFYING SHAPES AND THEIR PROPERTIES									
shapes in a number of different contexts.  Identify the 2D shapes (including adverse), circles and triangles]  **Begin to identify the 3D shapes: cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  Talk about and discuss the properties of shapes and explore the properties of shapes.  Talk about and discuss the properties of shapes and explore the properties and and properties and explore the properties of shapes and explore the properties and triangle and explore the properties and explore the properties and triangle and explore the properties of shapes and explore the properties and explore the properties and triangle and explore the properties of shapes and explore the properties and explore the properties and explore the properties and triangle and explore the properties of shapes and explore the properties and explore the properties and triangle and explore the properties of shapes and explore the properties and triangle and explore the properties and triangle	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6				
shapes, including:  * 2-D shapes [e.g., rectangles (including) squares), circles and triangles.  * 2-D shapes [e.g., cuboids (including) squares), circles and triangles.  * 3-D shapes [e.g., cuboids (including) cubes), pyramids and spheres].  * 3-D shapes [e.g., cuboids (including) cubes), pyramids and pyramids.  * 3-D shapes (and pyramids).  * 3-D shapes (and describe) the properties of 3-D shapes, including the number of sides and line symmetry in a vertical line  * 4-D shapes (and pyramids).  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 5-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid]  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 7-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 6-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 7-D shapes (for example, a circle on a cylinder and a triangle on a pyramid)  * 8-D shapes (for example, a circle	Play and explore	recognise and name	identify and describe		identify lines of	identify 3-D shapes,	recognise, describe and				
mumber of different different contexts.  Identify the 2D shapes [e.g. rectangles and triangles. rectangles and triangles. cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  EVFS  Create constructions with 3D shapes and explore the properties of and explore the properties of and explore the properties of and explore the properties and triangles and explore the properties of and expression and explores the properties of shapes and explore the properties of and expression and explores the properties of shapes and explore the properties of symmetry in a vertical line symmetry in a vertical line properties of sides and line symmetry in a vertical line properties of sides and line symmetry in a vertical line properties of shapes, including the number of sides and line symmetry orientations or expresentations orientations or expresentations or expression or expresentations or expression including expression or expre	shapes in a	common 2-D and 3-D	the properties of 2-D		symmetry in 2-D shapes	including cubes and	build simple 3-D shapes,				
contexts.  Identify the 2D shapes squares, circles, rectangles and triangles]  * 3-D shapes [e.g. cuboids (including the parts of circles, rectangles and triangles.  Begin to identify the 3D shapes: cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  Talk about and discuss the properties of shapes.  **Tolk about and discuss the properties of shapes with 3D shapes and explore the procession of the surface of 3-D shapes in parts.  **Tolk about and discuss the properties of shapes and make 3-D shapes and make 3-D shapes and make 3-D shapes in of symmetric figure with degrees (°)  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes in the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes and make 3-D shapes in of symmetric figure with make 3-D shapes in of symmetry  **Tolk about and discuss the properties of shapes in the properties of shapes and make 3-D shapes in of symmetry  **Tolk abo	number of	shapes, including:	shapes, including the		presented in different	other cuboids, from 2-D	including making nets				
Identify the 2D shapes squares), circles and triangles] * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].  * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].  * 3-D shapes [e.g. cuboids (including cubes), pyramids and spheres].  * 3-D shapes [e.g. cuboid (including cubes), pyramids and spheres].  * 3-D shapes [e.g. cuboid gnd parts of circles, including radius, diameter and circumference and kind that the diameter is twice the radius  * 3-D shapes [e.g. cuboid gnd parts of circles, including radius, diameter and circumference and kind that the diameter is twice the radius  * 3-D shapes [for example, a circle on a cylinder and a triangle on a pyramid]  * 5-PS  * Create  * Constructions  * Make 3-D shapes using  * modelling materials:  * respect to a specific line  * of symmetry  * Graw given angles, and  * measure them in  * degrees (°)  * Adraw 2-D shapes using  * modelling materials:  * respect to a specific line  * of symmetry	different	<ul><li>* 2-D shapes [e.g.</li></ul>	number of sides and line		orientations	representations	(appears also in Drawing				
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shapes squares, circles, rectangles and triangles.  Begin to identify the 3D shapes: conses, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  EYFS  Create constructions with 35 shapes and constructions with 35 shapes and explore the action of symmetry  * 3-D shapes [e.g. cuboids (including and describe the properties of 3-D shapes, including radius, diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is the number of symmetric figure with measure them in degrees (°) and the properties of symmetric figure with degrees (°) and figure and and the properties of symmetric figure with degrees (°) and figure and circumference and kn that the diameter is twice the radius diameter and circumference and kn that the diameter is the properties of shapes and circle and ci		squares), circles and	line								
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triangles.  Begin to identify the 3D shapes: cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  EYFS  Create constructions with 3D shapes and make 3-D shapes and make 3-D shapes and make 3-D shapes using modelling materials; and explore the	circles,	cuboids (including	the properties of 3-D				parts of circles,				
vertices and faces    vertices and faces	_		shapes, including the								
Begin to identify the 3D shapes:	triangles.	spheres].	,				diameter and				
the 3D shapes: cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  EYFS  Create constructions with 3D shapes and explore the  identify 2-D shapes on the surface of 3-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]  DRAWING AND CONSTRUCTING  draw 2-D shapes and make 3-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in  twice the radius			vertices and faces				circumference and know				
cones, sphere, cube, cuboid and pyramids.  Talk about and discuss the properties of shapes.  EYFS  Create constructions with 3D shapes and explore the  Talk about and discuss the properties of shapes.  Create constructions with 3D shapes and explore the  Talk about and discuss the properties of shapes.  DRAWING AND CONSTRUCTING  Complete a simple symmetric figure with respect to a specific line degrees (°)  angles  angles	, ,						that the diameter is				
cube, cuboid and pyramids.  Shapes, [for example, a circle on a cylinder and a triangle on a pyramid]  Talk about and discuss the properties of shapes.  EYFS  Create  constructions with 3D shapes and explore the  Shapes, [for example, a circle on a cylinder and a triangle on a pyramid]  DRAWING AND CONSTRUCTING  complete a simple symmetric figure with respect to a specific line of symmetry  Araw 2-D shapes using modelling materials; recognise 3-D shapes in of symmetry	· ·						twice the radius				
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different											
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shapes together											
in different ways.											

	COMPARING AND CLASSIFYING						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Compare shapes and talk about why they are similar and why they might be different.		compare and sort common 2-D and 3- D shapes and everyday objects		compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes	use the properties of rectangles to deduce related facts and find missing lengths and angles	compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	
					distinguish between regular and irregular polygons based on reasoning about equal sides and angles	recognise, describe and build simple 3-D shapes, including making nets (appears also in Identifying Shapes and Their Properties)	
	ANGLES						
			recognise angles as a property of shape or a description of a turn		know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles		
			identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle	identify acute and obtuse angles and compare and order angles up to two right angles by size	identify:  * angles at a point and one whole turn (total 360°)  * angles at a point on a straight line and ½ a turn (total 180°)  * other multiples of 90°	recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles	
			identify horizontal and vertical lines and pairs of perpendicular and parallel lines				