

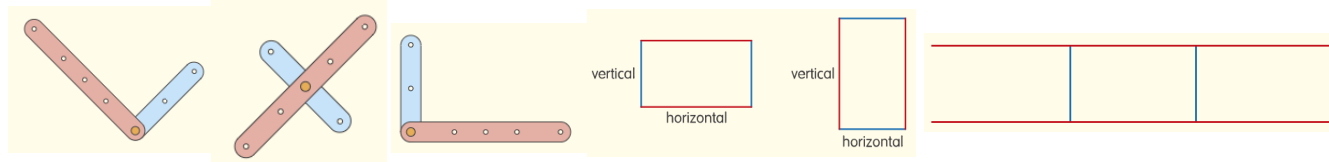
Maths - Year 3

Geometry 1: Investigating the parts and properties of polygons and polyhedra

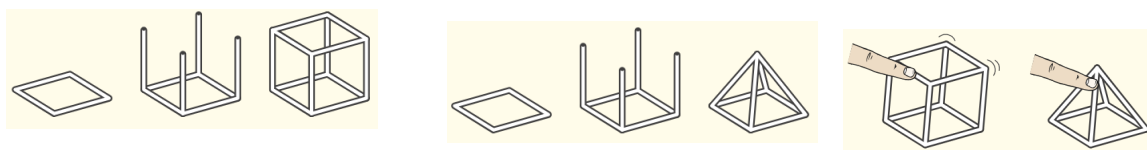
Key Vocabulary		Mathematical Skills
Horizontal	A straight line parallel to the horizon.	<ul style="list-style-type: none"> - Draw and make polygons using a variety of resources. - identify and name perpendicular, parallel, vertical and horizontal lines. - Make skeleton polyhedra and consider the parts and properties of these shapes. - Explore the number of faces, vertices and edges in polyhedra. - Work systematically and make an appropriate record of any findings.
Vertical	A straight line at right angles to the horizon.	
Perpendicular	At right angles, e.g. perpendicular lines are lines at right angles to each other.	
Parallel	Lines that remain the same distance apart and never touch.	
Right angle	An angle of exactly 90 degrees.	
identical	Exactly the same.	
polygon	A flat, geometric shape with straight sides.	
congruent	Identical in form.	
polyhedron	A 3D shape with flat faces.	
Vertex/ vertices	A point where two sides meet in a flat shape, or where three or more edges meet in a 3D shape.	

Mathematical Methods

- Exploring vertical and horizontal lines, noticing patterns e.g. lines that are parallel and perpendicular.



- Building 3D skeleton shapes, making observations and exploring patterns.



- Investigating the relationship between the number of faces, edges and vertices in any polyhedron.

Can you..?

- Can you highlight the parallel lines?



- Can you highlight the perpendicular lines?



- Liam has 12 straws. What 3D skeleton shape could you make?

- An octahedron has 8 faces and 12 edges. Can you predict how many vertices it will have?