Pupils should be taught to:	As outcomes, Year 4 pupils should, for example:
Describe and visualise 3-D and 2-D shapes; classify them according to their properties	Use, read and write the words: *pattern, shape, 2-D, two-dimensional, 3-D, three-dimensional… line, side, edge, face, surface, base, point, angle, vertex, vertices… centre, radius, diameter… net… make, build, construct, draw, sketch…* and adjectives such as: *curved, straight… regular, irregular… concave, convex… closed, open… circular, triangular, hexagonal, cylindrical, spherical… square-based, right-angled…*

Name, classify and describe 2-D and 3-D shapes:
circle, semi-circle, triangle, equilateral triangle, isosceles triangle, quadrilateral, rectangle, oblong, square, pentagon, hexagon, heptagon, octagon, polygon… cube, cuboid, pyramid, sphere, hemi-sphere, cylinder, cone, prism, tetrahedron, polyhedron…

For example:

3-D shapes
Know that in a polyhedron:
- each face is a flat surface and is a polygon;
- an edge is the straight line where two faces meet;
- a vertex is the point where three or more edges meet.

Know that a prism has two identical end faces and the same cross-section throughout its length.
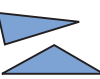Collect, name and describe examples.

2-D shapes
Know that a polygon is a closed, flat shape with three or more straight sides, and that regular polygons have all their sides and all their angles equal.

Know the angle and side properties of isosceles and equilateral triangles, and use them: for example, to make triangular patterns.

Name and classify polygons.

Know some of their properties. For example:

- all heptagons have seven sides;
- a quadrilateral is any shape with four straight sides;
- the square and the equilateral triangle are examples of regular polygons;
- an isosceles triangle is an example of an irregular polygon;
- a polygon can be concave or convex.

Identify particular shapes from a mixed set.
For example, which of these shapes are hexagons?