

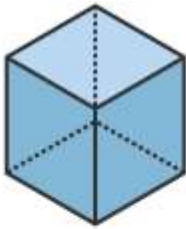
Lesson Plan

3D solid shapes

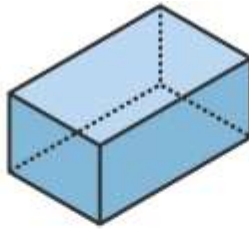
Here are some common solid shapes.



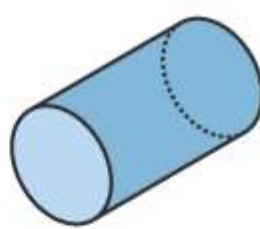
Sphere



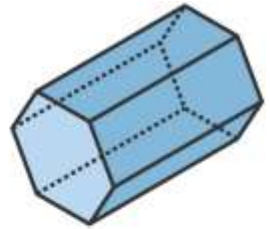
Cube



Cuboid



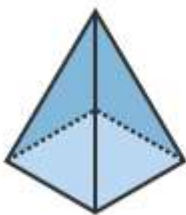
Cylinder



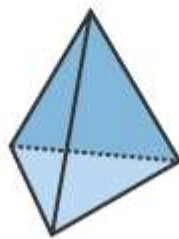
Hexagonal prism



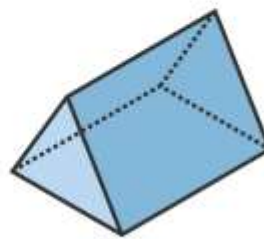
Cone



Square-based
pyramid



Tetrahedron
(triangle-based
pyramid)



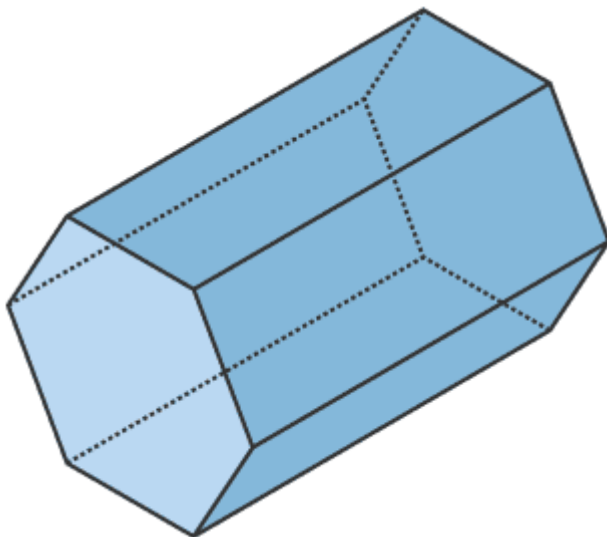
Triangular
prism

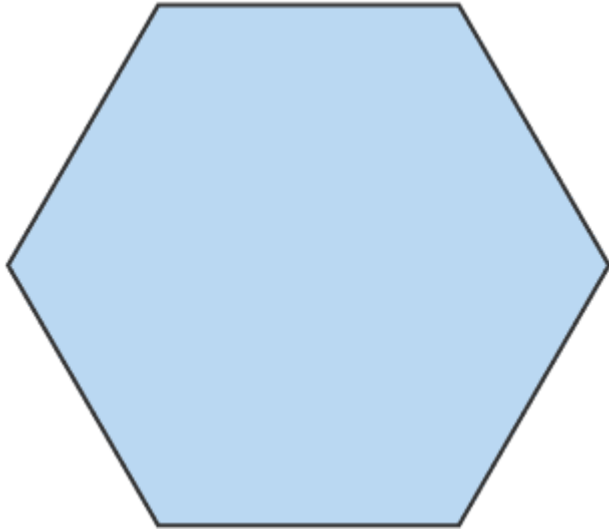
Prisms and pyramids

A **prism** is a 3D shape which has a constant cross section - both ends of the solid are the same shape and anywhere you cut parallel to these ends will give you the same shape.

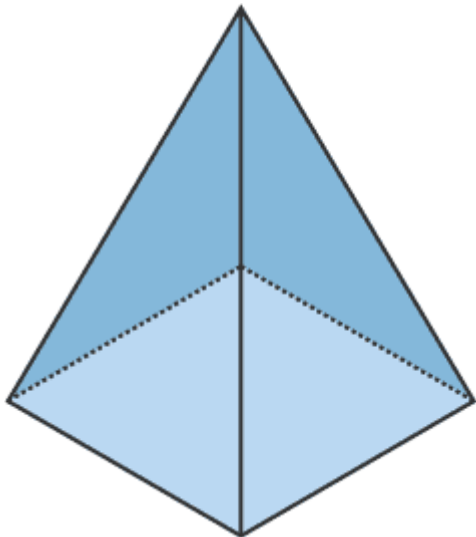
For example, in the prism below, the cross section is a hexagon.

This is called a **hexagonal prism**.

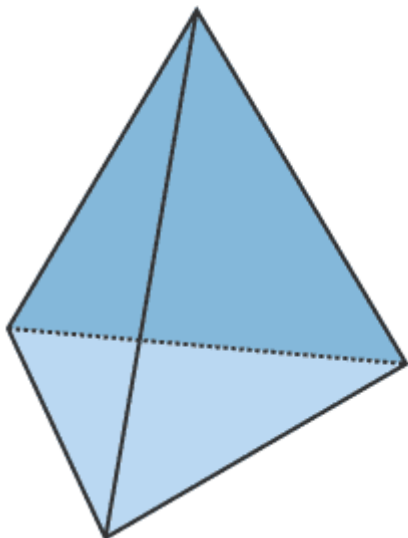




A **pyramid** has sloping faces that meet at a vertex.



Square-based pyramid



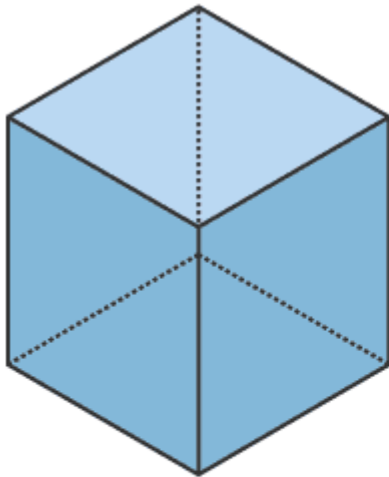
Tetrahedron

Nets

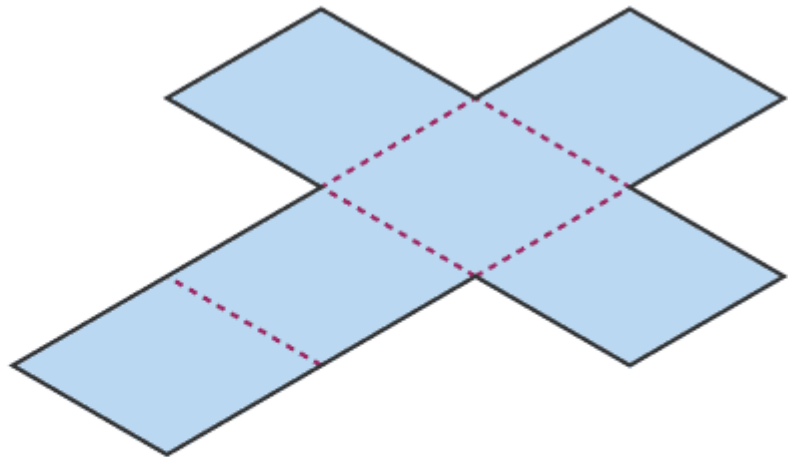
Some 3D shapes, like cubes and pyramids, can be opened or unfolded along their edges to create a flat shape.

The unfolded shape is called the **net** of the solid.

Here are some 3D shapes and their nets.



Cube

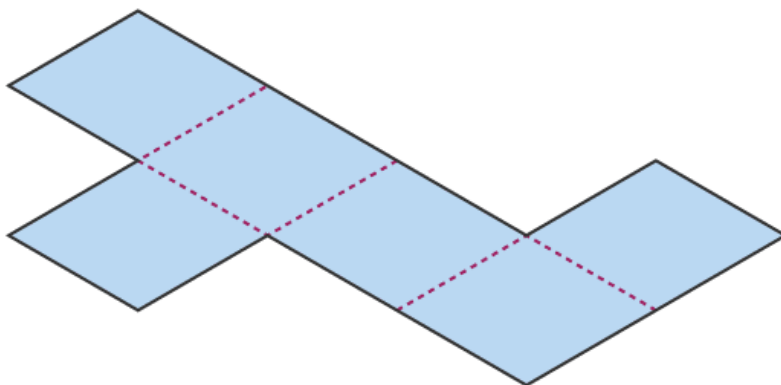


Net of a cube

3D Shapes and their nets

Getting nets right

A net has to be able to fold up into the 3D shape. All of the following shapes are nets of a cube.



Nets of a cube

Getting nets wrong

The shapes below are **not** nets of cubes. Consider why they **wouldn't** fold up into a cube?

