

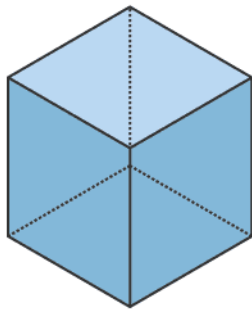
Year 7 Teaching Sheet

Nets

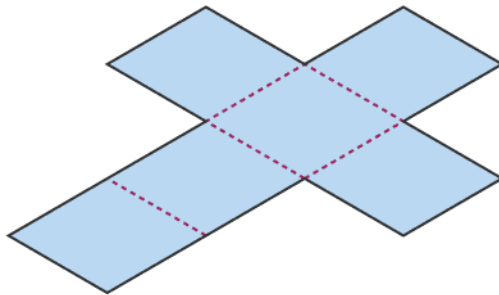
Some 3D shapes, like cubes and pyramids, can be opened or unfolded along their edges to create a flat shape. The unfolded shape is called the **net** of the solid.

Here are some 3D shapes and their nets:

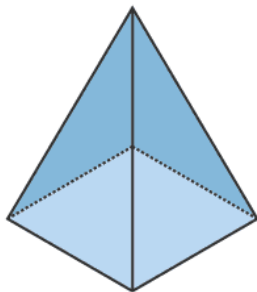
Cube (6 faces)



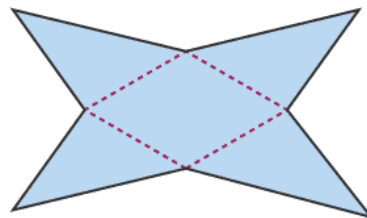
Net of a cube (6 faces, unfolded)



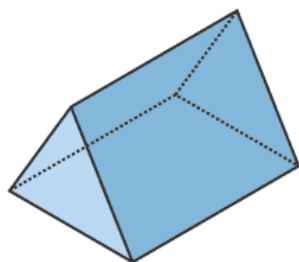
Square-based Pyramid (5 faces)



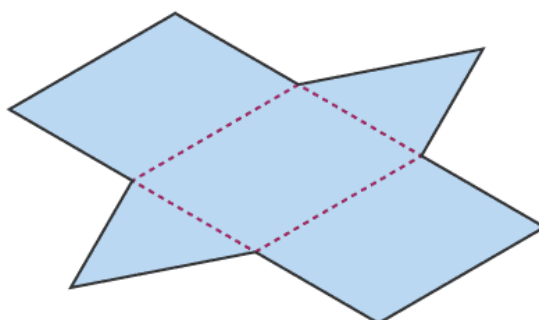
Net of a Square-based Pyramid (5 faces, unfolded)



Triangular Prism (5 faces)



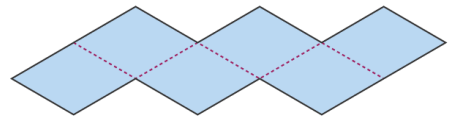
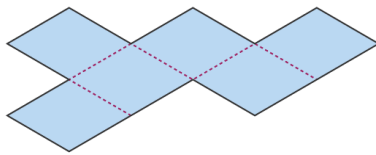
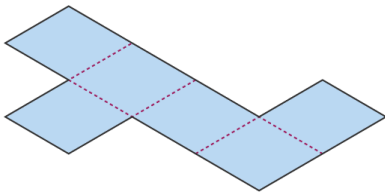
Net of a Triangular Prism (5 faces, unfolded)



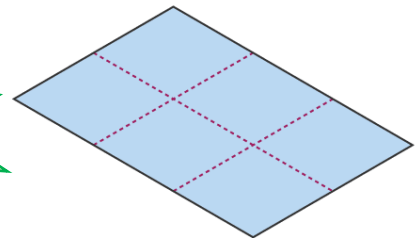
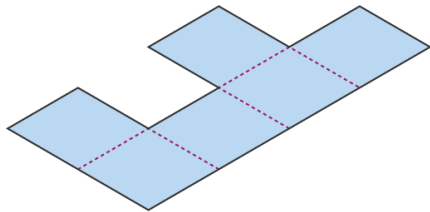
When looking at nets it is important to visualise how they would fold up to form a 3D shape. Sometimes it helps to draw the shape on a piece of paper and count the number of faces it has.



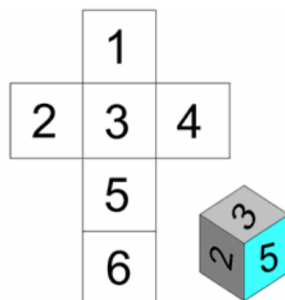
A net has to be able to fold up into a 3D shape. They can be set out in different ways, it doesn't matter as long as it can be folded up into a 3D shape. For example, the below 3 nets are all nets of a cube:



But the shapes below are NOT nets of a cube. Can you see how they could not be folded up into a cube?

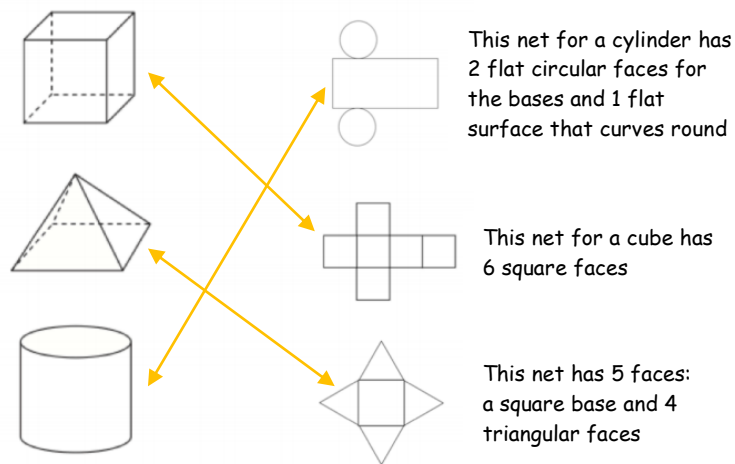


Take time to draw a net of a cube on a piece of paper, marking in each of the 6 faces. Now cut it out and fold it into a cube. Notice how many different ways you could draw the net. Consider why the above 2 shapes would NOT fold up to form a cube.

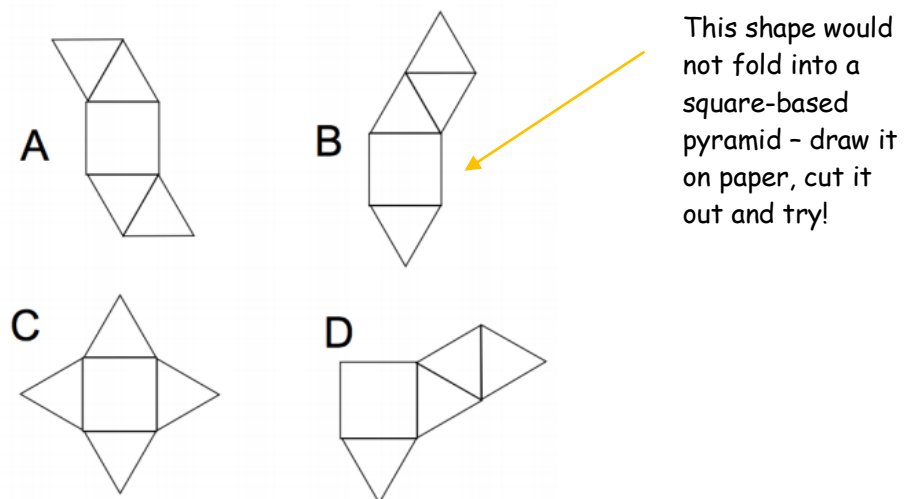


Let's practice! The below drawings show three 3D shapes and their nets.

Can you match each shape with its net?



Now have a look at the shapes below. Which shape is NOT a net for a square-based pyramid?



Now have a look at this shape:

What is wrong with this? Why is this shape NOT a net?



In order to fold into a cylinder, the 2 bases must be on different sides of the rectangle. This one is better!

