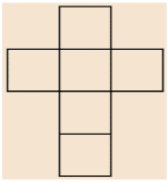
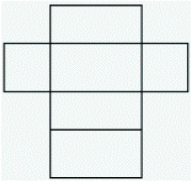
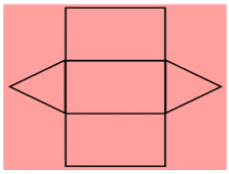
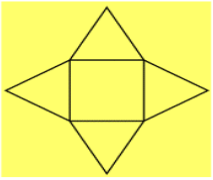
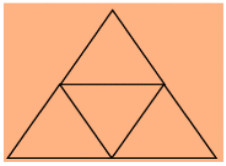
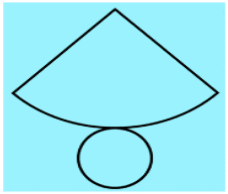
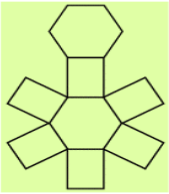
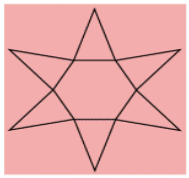
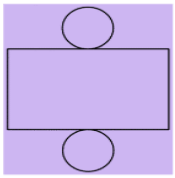
SHQ: What does a net of a 3D shape look like?

We have so far looked at the properties of 2D shapes and in particular a circle. Now we are going to look at some 3D shapes, and how they can be constructed.

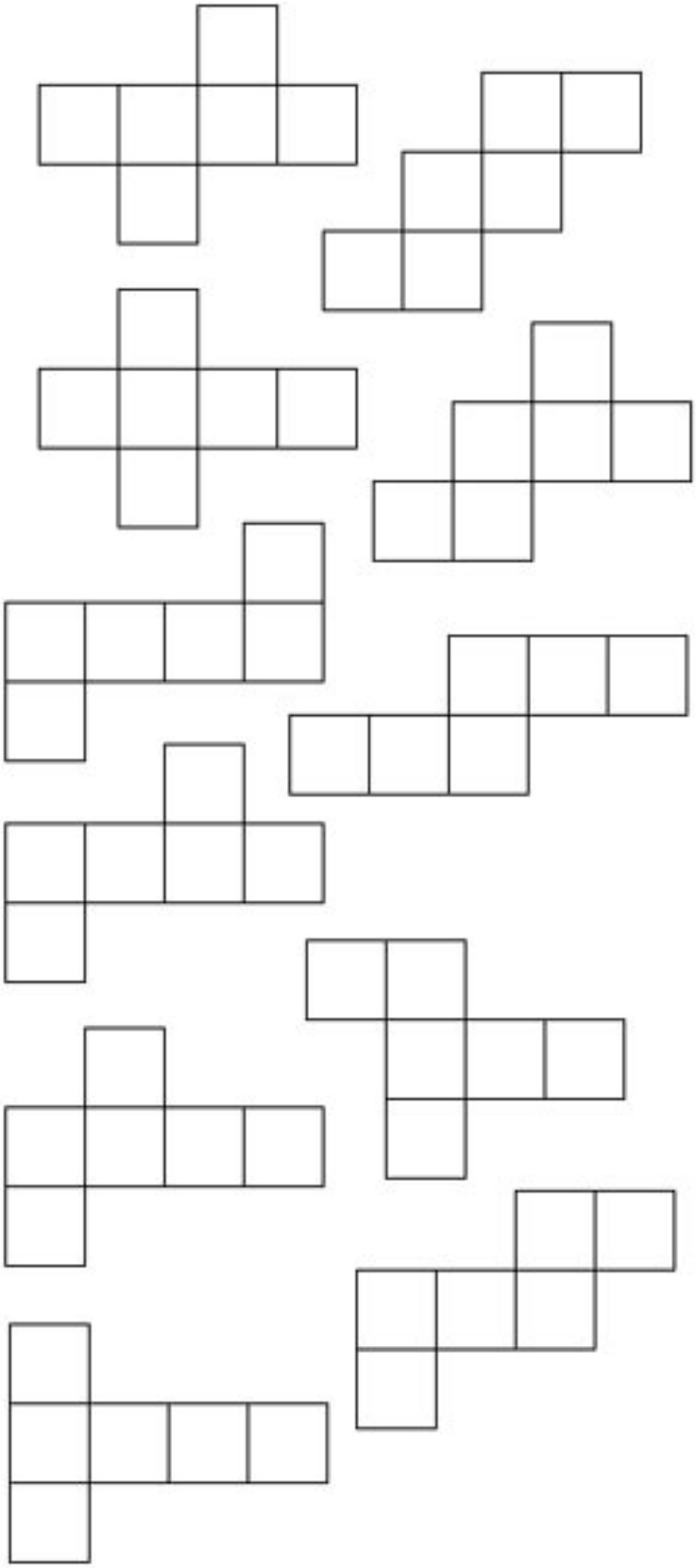
To start with, watch this short BBC Bitesize animation and read the information that goes with it. This will explain what the net of some 3D shapes looks like. how a 3D shape can be turned into a net, and how a net can be made into a 3D shape?

https://www.bbc.co.uk/bitesize/topics/zt7xk2p/articles/z247tv4

Here are pictures of some nets of 3D shapes that you will remember from our classwork. Can you work out what these shapes will look like when they are made into 3D shapes?

 **Cube** Faces: 6 Edges: 12 Vertices: 8	 **Cuboid** Faces: 6 Edges: 12 Vertices: 8	 **Triangular Prism** Faces: 5 Edges: 9 Vertices: 6
 **Square-based Pyramid** Faces: 5 Edges: 8 Vertices: 5	 **Tetrahedron** (Triangular-based Pyramid) Faces: 4 Edges: 6 Vertices: 4	 **Cone** Faces: 2 Edges: 1 Vertices: 0 or 1
 **Hexagonal Prism** Faces: 8 Edges: 18 Vertices: 12	 **Hexagonal Pyramid** Faces: 7 Edges: 12 Vertices: 7	 **Cylinder** Faces: 3 Edges: 2 Vertices: 0

It is important to remember that there is more than one net for some 3D shapes, for example, a cube could be made from the nets shown on the following page. Try cutting some of the nets out to prove that they do make a cube:



Note:

You will need this information for your next worksheet so keep this page and keep any nets that you cut out and make!

Now it's your turn: Using this information, work through the questions on the Power Maths resource for Worksheet 8. There are taken from Power Maths Geometry Unit 13, Lesson 11. Answers are included in 'Week 7 Maths Answers'.