## 3D Geometry

## Activity 3 - Solid Shapes and Their Nets

Shapes in three dimensions have three defining measures: length, width and height. A net is the architecture of a solid shape. It is a flat shape that can be folded and have its edges joined together to make a solid shape. There is usually more than one possible net for any solid shape.

In a previous activity, you learned how a cube could be flattened to see the 2D squares which make up the cube. The flat unfolded shape, made up of the six squares, was the cube's net.
In this activity, try making a dodecahedron! Not just any dodecahedron, but a dodecahedron calendar that you can use at home or school.


For this activity you will need: glue, scissors, coloured markers or pencil crayons, index cards, bristol board or thick paper and a pencil.

## Activity Instructions:

1. Draw a pentagon onto an index card
2. Trace the cardboard pentagon on the bristol board and construct two nets. Follow the net shown above. Remember to draw your flaps.
3. Cut out the models and fold all the flaps. Crease along the sides of the inner pentagon.
4. Each face of the dodecahedron will have the calendar for one month of the year. Decorate your calendar faces and write one month on each face.
5. Glue the two models together. This will make a 12 -sided shape called a dodecahedron. Your final product should look something like this.

