

READ FIRST

YEAR 6: 3D MODELLING

CURRICULUM MILESTONES

I can modify and adjust objects in a 3D space.

I can recognise the difference when working with 3D objects in comparison to 2D shapes.

WHY THIS? WHY NOW?

CURRICULUM SEQUENCING AND ASSESSMENT

This unit gives children a taste of 3D design software in the intuitive world of Tinkercad. This software is very much a first step into the world of computer aided design, and lays some really important foundations for children moving onwards into secondary education.

The unit follows on from graphics related work in year 5 (vector drawing) and clearly has cross curricular links with the topic of maths, particularly 3D shape. There are also Design-Technology links that can be made with this unit.

THE SIMPLE RUBRIC DOCUMENT MIGHT WORK FOR YOU AS AN ASSESSMENT TOOL, BUT DO CHANGE CRITERIA FOR YOUR OWN NEEDS.

It's essential (and makes life easy) if teachers set up an education Tinkercad account and use this to run classes with children. [See here for instructions.](#)

This series of lessons has cross-curricular links with Maths: 3D shape and design technology in general. You might want to consider children's final 3D modelling output – lessons 5 and 6 – as a cross-curricular theme. Religious buildings such as mosques, churches and synagogues have made great RE-based tasks, or any number of DT projects incorporate the computer-aided design approach.

EASY ACCESS TIPS: LESSONS 1, 2, 3 & 4

If short on time, these sessions can be amalgamated into fewer sessions. It is important that children have enough time to experiment with making basic objects out of the shapes that are provided in Tinkercad. There is no point spending lots of time deciphering the minor details – Tinkercad has a fairly intuitive interface.

Do get children to explain their findings to the whole class as they explore – that way you can all learn together.

EASY ACCESS TIPS: LESSONS 5 AND 6

You may wish to devote a good amount of time to this design and build stage, depending on the task ahead for children.