

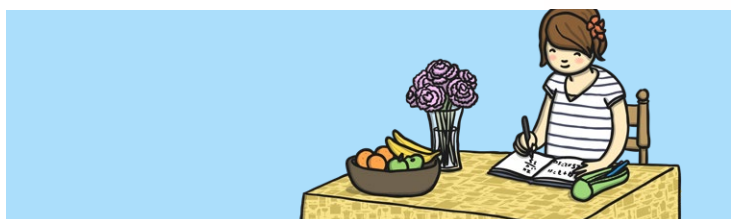
Introduction

In this unit the children extend their drawing skills to create 3D models based on using the software SketchUp. The free version of this is suitable for the unit, although the full version can also be used if the teacher already has access to this. Children will learn how to create simple and complex 3D models. They will be able to add detail and manipulate 3D models using a variety of tools.



Health & Safety

Children should be encouraged to have good posture and sit up to the computer.



Home Learning

Garden Shed: Children use SketchUp to create a Garden Shed. They must include a window and a door as well as making the shed look as though it is made from wood.

Garden Table: Children use SketchUp to create a Garden Table. They must include a square or round top, 3 or 4 legs as well as making the table look as though it is made from either wood or metal.

Assessment Statements

By the end of this unit...

...all children should be able to:

- Draw 2D shapes or lines.
- Draw simple 3D models.
- Manipulate 2D shapes into 3D shapes.
- Import 3D models from the 3D warehouse.
- Use a range of SketchUp tools including: shape, push, pull, orbit, pan, zoom, erase and fill.

...most children will be able to:

- Draw and manipulate 3D models independently.
- Use inference points to draw lines and shapes.
- Use a wide range of SketchUp tools and concepts including: the dimensions toolbar and guides, tape measure, zoom extents and the 3D warehouse.

...some children will be able to:

- Draw and manipulate scale 3D models.
- Select the correct tools for different features.
- Independently use a wide range of SketchUp tools and concepts including: making groups and components, offset, inference, arc, scale and follow me (only on the large toolbar).

To look at all the resources in the 3D Modelling: SketchUp unit [click here](#).

To find out more about PlanIt download our [free guide here](#).

Lesson Breakdown

1. 2D to 3D

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by drawing and manipulating simple 3D shapes.

- I can draw 3D shapes.

2. Detail

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by adding detail to simple 3D shapes.

- I can add detail to 3D drawings.

3. Inside

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by adding detail to simple 3D shapes.

- I can add detail to 3D drawings.

4. Furniture

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by adding more complex 3D models.

- I can add and manipulate 3D models.

5. A Table

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by creating complex 3D furniture models.

- I can create a complex 3D model.

6. Your Room

Select, use and combine a variety of software (including Internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information by applying the skills they have learnt in this unit to their own design.

- I can create a 3D model of my own design.

Resources

- Desktop computer/ laptop
- SketchUp Make installed



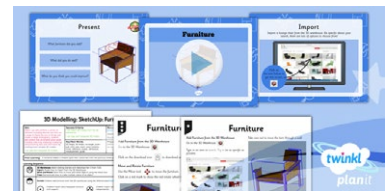
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