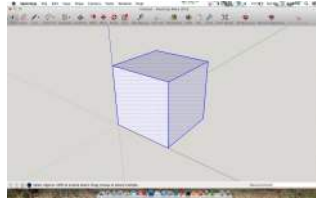


Computing 3D Modelling

Overview

The term 3D refers to something that has three dimensions — length, width, and depth. For example, a cube is a 3D shape because it has depth, whereas a square is flat and only has two dimensions, making it a 2D shape.



3D modelling is the process of using special software to build digital models that look like real objects. These models can be viewed and edited from all angles, which allows designers to try out different versions and make changes easily.

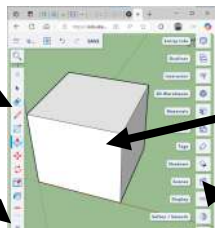
This method is widely used in many fields, such as architecture, interior design, and video game development, where visualising objects or spaces in three di-

SketchUp

Sketchup is one example of 3D modelling software

Toolbar- Where the various modelling tools can be found

More tools can be found by clicking here



Workspace. The space you build your model

Scenes allows you to look at your model from various preset angles

Basic Controls



Select tool: Selects a line or polygon so it can be moved or edited in some way using the other tools.



Eraser: Used to delete unwanted parts of a model.



Rectangle tool: Used to create a 2D rectangle on a surface.



Push/Pull tool: Used to move a plane in or out. Can be used with the rectangle to create a cube or cuboid.



Paint tool: Used to add a material to a polygon



3D text tool: Used to create and add 3D text to a model



Pan: Moves the view left and right and up and down.



Rotate tool: Rotates the view around the currently selected object.

Scale

In 3D modelling with SketchUp, scale means creating models that match real-life measurements accurately. A model that is to scale has all its parts sized in proportion to how they would be in the real world, which is important in areas like architecture and design. This ensures that windows, doors, and other features fit correctly. A model not to scale is drawn without using exact measurements and is often used for rough sketches or creative concepts. In SketchUp, using tools like the tape measure helps maintain accuracy and ensures your model reflects realistic dimensions when needed.

Key Questions

What does it mean if a model is "To Scale?"

The model has the same proportions as its full size inspiration

What is the workspace?

Where your model is made

Give an example of a 3D shape

Cube, cuboid, pyramid etc.

Give an example of an industry that uses 3D modelling

Architecture, interior design, and video game development, etc.

Key Vocabulary

Modelling, Three-Dimensional, Workspace,
Select, Erase, Pan, Rotate, Polygon,