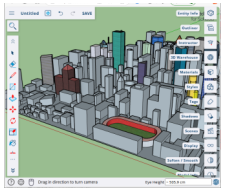
Computing

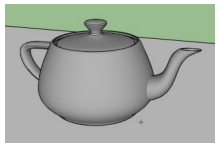
3D modelling

Overview



The term 3D stands for three-dimensional, meaning an object has three dimensions. For instance, a cube is a 3D shape, while a square is a 2D shape.

3D modelling is the process of using computer software to create digital three-dimensional shapes, often representing real-world objects.



This technique enables designers to explore different perspectives, adjust designs, and experiment with variations.

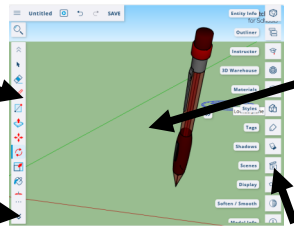
Various industries rely on 3D modelling, including architecture, interior design, and video game development.

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 at your model from various. preset angles.

More advanced techniques

	Lasso tool. Used to select models in the workspace. Copy and paste can then be used to duplicate models.
	Arc tool. Creates arcs that can be added to models to make shapes with curved sides.
	Polygon tool. Creates polygons other than squares and rectangles in order to create more advanced 3D shapes.
	Offset. Used to measure and place shapes exactly within large shapes. Can be used with push/pull to make complex shapes.
	Material fill. Changes the material of 3D shapes. Can be used to make windows or simulate other real world materials.
	Rotate. Rotate your view around the shape.
	Zoom extent. Fit your 3D model to your down so you can see it all at one time.
	Pan. Move left, right, up and down on one plane.

Key Questions

What does "3D" stand for?

"3D" stands for three-dimensional, meaning something has height, width, and depth.

How is a 3D shape different from a 2D shape?

A 3D shape has depth, making it solid, while a 2D shape is flat and only has height and width.

What is 3D modelling?

3D modelling is the process of using computer software to create digital three-dimensional shapes or objects.

Why is 3D modelling useful?

It helps designers see objects from different angles, test ideas, and make changes before creating real-life versions.

Key Vocabulary	Modelling, Three-Dimensional, Workspace,
Faces, Vertices, Edges, Resize, Position, Design, Modify	