

**Computing**

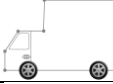






**Unit 5.6 – 3D Modelling**

**Year 5**

**Key Learning**

- To be introduced to 2Design and Make and the skills of computer aided design.
- To explore the effect of moving points when designing.
- To understand designing for a purpose.
- To understand printing and making.

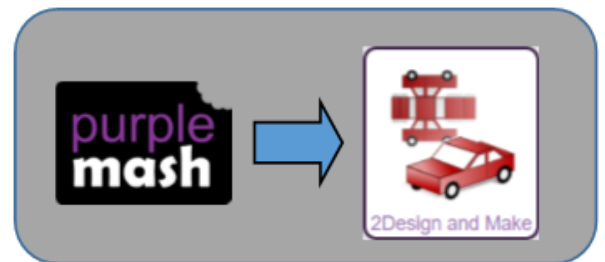
**Key Images**

2D Image	
3D Image	
Net View	
Colour palette	
Clear, Undo and Redo	
Fill options	
Magnify	

**Key Vocabulary**

<b>CAD – Computer aided Design</b>	A CAD computer program or app allows you to design a 3D object or environment in 2D and visualise it in 3D on the screen from many angles.
<b>Modelling</b>	The activity of making models.
<b>3D</b>	Something that has three dimensions; height, width and depth.
<b>Viewpoint</b>	A person's opinion or point of view.
<b>Polygon</b>	An object with at least three straight sides and angles, and typically five or more.
<b>2D</b>	Something that has only two dimensions; height and width.
<b>Net</b>	A pattern that you can cut and fold to make a model of a solid shape.
<b>3D Printing</b>	The action or process of making a physical object from a three-dimensional digital model, typically by laying down many thin layers of a material in succession.
<b>Points</b>	An exact position or location on a 2D surface.
<b>Template</b>	Something that serves as a model for others to copy

**Key Resources**



**Key Questions**

<b>What are the different view of an object available in 2Design and Make?</b>	Net, Points and 3D.
<b>How can the objects designed in 2Design and Make be turned into 3D objects?</b>	You can print the net and then cut and fold this into shape or you can convert the file into a format recognised by 3D printers.
<b>How is CAD software used in industry?</b>	It is used to design 3D objects in a 2D environment. Some examples are; Architectural plans for buildings; designing layouts for interiors; designing objects such as packaging and designing mechanical components; designing shoes and clothing.