Knowledge Mat – 3D Modelling

Subject Specific Vocabulary				Sticky Knowledge
CAD – Computer Aided Design	A CAD computer program or app allows you to design a 3D object or environment in 2D and visualize it in 3D on the screen from many angles.	**3D Printing**	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.	To be introduced to 2Design and Make and the skills of computer aided design.
Modelling	The activity of making models.	**3D**	Something that has three dimensions; height, width, depth.	To explore the effect of moving points when designing.
Viewpoint	A person's opinion or point of view.	**2D**	Something that has only 2 dimensions; height and width.	To design a 3D Mode to fit certain criteria.
Polygon	An object with at least three straight sides and angles, and typically five or more.	**Net**	A pattern that you can cut and fold to make a model of a solid shape.	To refine and print a model.
Points	An exact position or location on a 2D surface.	**Template**	Something that serves as a model for others to copy.	

Key questions

What are the different view of an object available in 2Design and Make ?

Net, Points and 3D.

How can the objects designed in 2Design and Make be turned into 3D objects ?

You can print the net and cut then cut and fold this into shape or you can convert the file into a format recognized by 3D printers.

How is CAD software used in Industry ? Give some examples.

It is used to design 3D objects in a 2D environment.

Eg, Architectural plans for buildings; designing layouts for interiors; designing objects such as packaging and designing mechanical components; designing shoes and clothes.

Knowledge Mat – Concept Maps

Subject Specific Vocabulary				Sticky Knowledge
Audience	People giving attention to something	**Concept**	An idea.	To understand the need for visual representation when generating and discussing complex ideas.
Node	A way to represent concepts or ideas.	**Idea**	An opinion or belief.	To understand the uses of a 'concept map'.
Connection	A relationship or link between two nodes or ideas.	**Thought**	An idea or opinion produced by thinking or occurring suddenly in the mind.	To understand and use the correct vocabulary when creating a concept map.
Concept map	A tool for organising and representing knowledge. They form a web of ideas which are all interconnected.			To create a concept map.
Visual	A picture, piece of film or display used to illustrate or accompany something.			To understand how a concept map can be used to tell stories and information
Collaboratively	Something that is produced by, or involves, two or more parties working together.			To create a collaborative concept map and present this to an audience.

Key questions
What is a concept map? A concept map is a pictorial way of showing relationships between concepts and ideas. A concept map allows you to show information, pictures and links to support an idea or concept.
How is information arranged on a concept map ? On a concept map ideas or concepts are organised into nodes which are linked together with lines to show how the concepts and ideas link together.
How does a concept map help share ideas ? A concept map in 2Connect allows many users to contribute to the map which means that ideas or concepts can be quickly amended or additional information provided.

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Knowledge Mat – Word Processing

Subject Specific Vocabulary				key Knowledge
Textbox	A way to include text in a position that you want out of the usual flow of the document.	**Template**	A ready-made outline of a document you might want to adapt, such as a letter or certificate.	To know what a word processing tool is used for.
Font	A set of type which shows words and numbers in a particular style and size.	**Word processing tool**	A programme which allows you to write, edit and print different documents.	To add and edit images to a word document.
Readability	How easy and pleasant it is to read and understand a document.			To know how to use word wrap with images and text.
Text formatting	When you change the format of the text on a page, including the font, the size and whether it is bold, underlined or in italics.	**Text wrapping**	A feature which helps you place and position an image neatly on a page or within a paragraph or text.	To change the look of text within a document.
Copyright	When an image, logo or idea has a legal right to not be copied or used without the owner's permission.	**Cursor**	The flashing vertical line that shows your place in a Word document.	To add features to a document to enhance its look and usability.
Document	A type of file which shows written information and/or images and sometimes charts and tables.	**In-built styles**	A bank of ready-made styles which you can use to make sure your style (fonts, headers, spacing, size etc) is consistent throughout the document.	To use tables within MS word to present information.
Merge cells	A tool you can use when making a table to join cells which are next to each other on columns or rows.	**Paragraph formatting**	When you change the format of the text in a paragraph, including how the text is aligned and spaced.	To introduce children to templates
				To consider page layout including heading and columns.

Key Questions

What is a word processing tool used for ?

A word processing tool is used to create, edit and print off a document. This can contain text, images, tables or charts. Documents are a type of file that portray information.

What features can you use to make a document more readable ?

You can change the font format to give the document a theme and make it more readable. By changing the paragraph formatting, you can ensure the words are spaced evenly. You can add images and use text wrapping to ensure they are positioned well on the page.

How do you successfully add an image to a document ?

If you have an image saved onto your computer, you can click on insert - pictures - insert image form this device. You can resize and move the image and ensure it fits well on the page by

changing the text wrap setting.