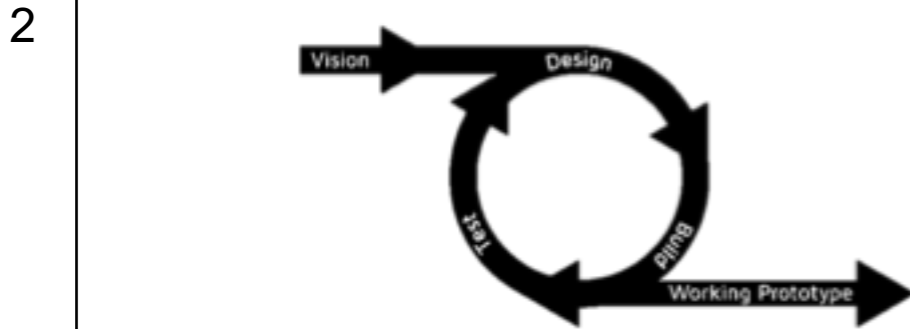


A INTERACTIVE DESIGN

1 Iterative design is a design methodology based on a cyclic process of prototyping, testing, analysing, and refining a product or process. Based on the results of testing the most recent iteration of a design, changes and refinements are made.



B KEY VOCABLUARY

	Key Terms	Definition
1	Shape	A two dimensional enclosed space built with line
2	Detail	The small areas of your design
3	Scale	The size of an object (a whole) in relationship to another object (another whole)
4	Composition	Where you place objects on the page
5	Media	Materials you are creating your design/illustration with.
6	Tone	The lightness or darkness of something
7	Blending	A seamless transition between two colours
8	Annotation	detailed notes or explanations added to labels
9	Texture	How an object feels to touch
10	Model	A 3D representation of what I product might look like. Often smaller but to scale and made with different materials (not always) to test an idea.
11	Prototype	A first or preliminary version of a product from which other forms are developed.

C ADVANTAGES OF CAD DISADVANTAGES OF CAD

	Advantages	Disadvantages
1	Designs can be created, saved and edited easily, saving time	CAD software is complex to learn
2	Designs or parts of designs can be easily copied or repeated	Software can be very expensive
3	Designs can be worked on by remote teams simultaneously	Compatibility issues with software
4	Designs can be rendered to look photo-realistic to gather public opinion in a range of finishes	Security issues - Risk of data being corrupted or hacked
5	CAD is very accurate	
6	CAD software can process complex stress testing	

D CAM – COMPUTER AIDED MANUFACTURE

	Type of CAM
1	Laser Cutter
2	Vinyl/knife cutter
3	CNC Router (Computer Numerical Control)
4	CNC lathe (Computer Numerical Control)
5	CNC Milling machine (Computer Numerical Control)
6	3D printer

A KEY VOCABULARY		
	Materials	Definition
1	Polymer	The umbrella term for synthetic materials engineered from a string of monomers.
2	Plastic	A synthetic polymer traditionally derived from finite petrochemicals such as oil, gas and coal, but are increasingly produced from sustainable sources such as vegetable starches.
3	Thermoforming	Also known as thermoplastics, they are generally more flexible, especially when heated. They are easily formed into complex shapes and easier to recycle because of their polymer structure.
4	Thermosetting	Also known as thermoset, they are more rigid and are 'set' once they are formed. When heated, they tend to burn rather than melt making most of them difficult to recycle.

D THERMOFORMING PLASTICS				
	Materials	Symbol	Characteristics	Uses
1	Polyethylene terephthalate (PET or PETE)		Dimensionally stable, easily blow moulded, chemically resistant and fully recyclable.	Bottles, food packaging, sheeting and some food wrap.
2	Polyvinyl phenol chloride (PVC)		Flexible, high plasticity, chemically resistant, tough and easily extruded.	Raincoats, pipes, electrical tape, air mattresses and self-adhesive vinyl.
3	High impact polystyrene (HIPS)		Flexible, impact resistant, lightweight, can be food safe. Sheets used for vacuum forming. Very toxic when burnt.	Vacuum-formed products such as food containers or yogurt pots.
4	Acrylic		Tough but brittle when thin. Easily scratched, formed and bonded. Common in school workshops with laser cutting and line bending.	Car lights, display stands, trophies, table tops, modern baths, jumpers, hats and gloves.

