

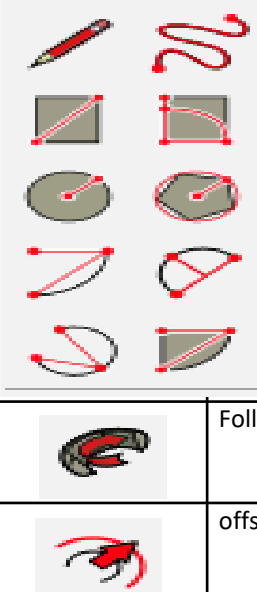












‘Google Sketch-Up’ Tools						
	Select		Fill	Draw		
	Eraser		Orbit			
	Pan		Zoom model			
	zoom		Zoom window			
	Move		Push/pull			Follow me
	Rotate		Scale			offset

Advantages and Disadvantages of CAD/CAM

	Advantages	Disadvantages
CAD Computer Aided Design	<ul style="list-style-type: none"> It’s easier to make drawings more accurate. You can edit or change things very easily and quickly. You can make identical copies very easily. You can show different materials and views. You can add lighting or special FX You can email designs (environmentally friendly) You can store lots of designs on a computer. 	<ul style="list-style-type: none"> Software and computers are very expensive. You need training on the software – slow initially. Viruses/hacking etc. You need compatible software to share designs.
CAM Computer Aided Manufacture	<ul style="list-style-type: none"> Easier to be accurate than making something by hand. Can make identical copies very easily. Machines don’t need a rest and don’t get sick so more can be made . Do not need to consider health and safety – machines can work in hazardous environments with hazardous technologies. 	<ul style="list-style-type: none"> Machines are very expensive. Employees need training– slow initially Machines need maintenance – expensive. Software can be corrupted.

Key Words		
1	Client	The person who you are commissioned to make the design for.
2	Expert	Someone who knows a lot about a specific subject
3	User	Person who is going to use the product you design.
4	Vanishing point	Specific point where lines are drawn towards in one and two point perspective

Types of Drawing /Projection		Uses
1	Exploded view	A drawing that shows how a product fits together Ikea flat-packed wardrobe.
2	Isometric Projection	3D drawing style where horizontal lines are drawn at 30 degrees to the vertical. Used Design for a package/product.
3	3rd Angle Orthographic Projection	Working drawing used to show different views (elevations) of a product [plan, front, side] it is usually drawn to scale. Working drawing of a product
4	One point perspective	A drawing that uses one vanishing point. Interior views of a house
5	Two Point perspective	A drawing that uses two vanishing points Street view of a building
6	Oblique Projection	3D drawing style where the front face is flat and the side is at 45degrees Artistic sketch

Design Strategies	
Iterative	A cyclical strategy where designs are constantly modified, tested and evaluated against design specifications.
System	Follows a specific system with little feedback.
User-Centred	Where specific users are consulted and give feedback about design decisions.

Command Words		
1	Apply	To use your knowledge to answer the question.
2	Justify	Give evidence so that you can show or prove to be right or reasonable.
3	Consider	Show and understanding of all elements before making a decision.
4	Review	A critical appraisal of something.
5	Compare and contrast	Give similarities and differences between several things, not just one.