

PRIOR LEARNING

- MARKING OUT TIMBER
- CUTTING AND SHAPING TIMBER
- ISOMETRIC DRAWING
- USE OF SOLIDWORKS

FUTURE LEARNING

- PRODUCTION AIDS
- FORCES & STRESSES
- WOOD JOINTS
- APPLY WAX FINISH
- 2D DESIGN- DRAWING OWN SHAPES
- BENDING PLASTIC
- FINISHING PLASTIC

CROSS CURRICULAR LINKS:

- ACCURATE RADIUS ON 2D DESIGN
- MAKING A TEMPLATE
- SCALE DRAWING OF PCB
- ELECTRONIC COMPONENTS

DESIGN & TECHNOLOGY: YEAR 8 MOODLIGHT

DESIGN

- SPECIFICATION OF SUCCESS CRITERIA (PG 98-99)
- DESIGNER INSPIRED LIGHTS
- 3D DRAWING (PG 108-109)
- ANNOTATE USING SPECIFICATION POINTS



TECHNICAL KNOWLEDGE

- DESIGNER INVESTIGATION (PG 94-95)
- ELECTRONIC SYSTEMS (INPUTS, PROCESSES, OUTPUTS) (PG 26-27)



MAKE

- USE A TEMPLATE TO DRAW ROUND (PG 42-43)
- CUT & SHAPE MANUFACTURED BOARD (PG 64-67)
- DRILL HOLE USING FORSTNER BIT (PG 66- 67)
- USE CAD TO DESIGN ACRYLIC WINDOW (PG 4-5)
- SOLDER A CIRCUIT (PG 71)
- USE TEMPORARY FASTNERS- WOOD SCREWS (PG 61)
- APPLY A PAINT OR WAX FINISH (PG72-73)

EVALUATE

- PRACTICAL REVIEW
- DESIGN IDEAS- PEER ASSESS



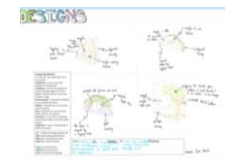
EVIDENCE IN BOOK



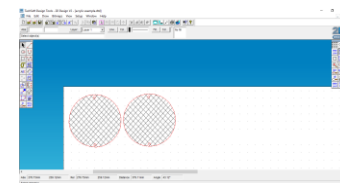
- ☐ DESIGNER INVESTIGATION DATE SET:



- ☐ 3D DESIGN IDEAS X 4 DATE SET:



- ☐ 2D DESIGN SCREEN SHOT- ACRYLIC DATE SET:



- ☐ PRACTICAL WORK

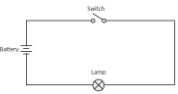
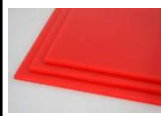
TOOLS, EQUIPMENT & PROCESSES

- | | |
|---|---|
| ☐ FORSTNER BIT | ☐ SOLERING A CIRCUIT |
| ☐ PILLAR DRILL | ☐ APPLYING A PAINT |
| ☐ COPING SAW | ☐ FINISH |
| ☐ FILES- FLAT & HALF ROUND | ☐ TRY SQUARE |
| ☐ BAND-FACER | ☐ 2D DESIGN- CAD |
| ☐ BENCH HOOK | ☐ LASER CUTTER |
| ☐ TEMPLATE | |

CAREER LINKS, INDEPENDENT STUDY IDEAS

- PRACTISE 2D DESIGN AT LUNCH TIME
- FIND OUT ABOUT MORE THAN JUST ONE OF THE DESIGNERS, OR ANALYSE ONE OF THEIR PIECES IN MORE DETAIL
- FIND OUT ABOUT THE PROPERTIES OF YOUR CHOSEN MANUFACTURED BOARD, WHAT ELSE CAN BE MADE WITH IT? WHAT IS THE ENVIRONMENTAL IMPACT?
- BECOME A CIRUCIT DESIGNER
- DESIGN PRODUCTS USING CAD

DT 2 MRS BINDON

KEY WORD	IMAGE	DEFINITION	KEY WORD	IMAGE	DEFINITION
Soldering		Soldering is the process of attaching electronic components to PCBs (printed circuit boards). You are aiming for a cone shape to cover the hole where the component comes through. You melt solder using a soldering iron & must wear goggles.	2Ddesign		A CAD software package used to draw our acrylic covers. These can then be laser cut. Red lines are for cutting, black lines are for etching
Electronic systems		Inputs- need interaction to make them work. Component examples include switch, sensors. Processes- receive information from input, pass onto output. No interaction needed, can't see/ hear if they are working. Components include integrated circuits, resistors, microcontrollers. Outputs- show us they are working in some way eg sound, light, motion. Component examples include, lamp, buzzer, motor	Hand/ power drill		Used for drilling smaller holes, good for awkward to reach places or out and about.
			Screwdriver		Used to put screws into join materials together. We use it to join the acrylic to the MDF.
			MDF		Manufactured board made up of wood fibres and resin. Good for painting due to it's smooth finish. Easy to cut and shape. Low cost compared to other manufactured boards.
			Acrylic		A thermoplastic which comes in a range of colours. Hard, stiff and shiny, good weather resistance. Can be quite brittle (not tough).
Coping saw		Used for thin woods & plastics. Cuts curves or complex shapes.	Paint finish		Good for adding colour to wood & manufactured board. Applied with a brush.
Band facer		Sands the edges of wood.			
Bench hook		Cut material on to protect the work bench. Used to cut your MDF on.			
Forstner bit		Drills large holes in timber, used to make the hole for the PCB.			