

PRIOR LEARNING

- ELECTRONIC SYSTEMS
- METALS, ALLOYS, & POLYMERS
- NEW MATERIALS
- CUTTING AND SHAPING MANUFACTURED BOARD
- ISOMETRIC DRAWING
- APPLYING A PAINT FINISH

FUTURE LEARNING

- PRACTICAL WORKSHOPS USING A RANGE OF MATERIALS
- PLAN AND COMPLETE A DESIGN AND MAKE PROJECT
- THEORY KNOWLEDGE EG MATERIALS, PROCESSES ETC
- MATHS SKILLS EG AREAS, VOLUMES
- DRAWING SKILLS EG PERSPECTIVE, ORTHOGRAPHIC

DESIGN & TECHNOLOGY: YEAR 9 PRODUCTION AIDS

DESIGN

- DESIGN SPECIFICATION (P98-99)
- MEMO-CLIP DESIGNS (P104-107)
- CRATING TO DRAW OUT DESIGNS (P108-109)
- EXPLODED DRAWING (P110-111)



TECHNICAL KNOWLEDGE

- FORCES & STRESSES (P42-43)
- PRODUCTION AIDS (P36-37)
- MARKING OUT TOOLS (P116-117)



MAKE

- ACRYLIC LAMINATED MEMO-CLIP (P68-69)
- STRIP HEATED STAND (P68-69)
- PLASTIC FINISHING- BUFFING MACHINE, WET & DRY PAPER (P72-73)
- HAND TOOLS- TENON SAWS, COPING SAWS (P64-65)
- MACHINES- BAND FACER, PILLAR DRILL (P66-67)
- WAX FINISH (P72-73)

EVALUATE

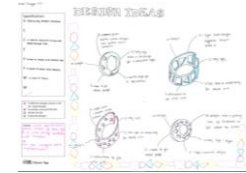
- REVIEW DESIGN IDEAS
- THIRD PARTY FEEDBACK ON FINAL PRODUCT (P114-115)
- SPECIFICATION REVIEW ON FINAL PRODUCT (P114-115)
- TESTING OF FINAL PRODUCT (P114-115)
- SUGGEST IMPROVEMENTS TO FINAL PIECE (P114-115)



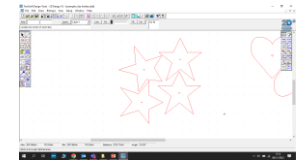
EVIDENCE IN BOOK



- ☐ 3D DESIGN IDEAS X 4
DATE SET:



- ☐ CAD EVIDENCE FROM MEMO CLIP
DATE SET:



- ☐ PLAN OF MAKING
DATE SET:



- ☐ PRACTICAL WORK

CROSS CURRICULAR LINKS:

- SIZES FOR WOOD JOINTS
- RADIUS FOR HOLE SIZES
- FORCES & STRESSES IN SCIENCE

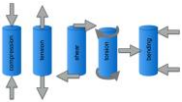
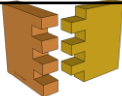
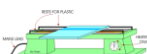
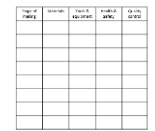
TOOLS, EQUIPMENT & PROCESSES

- | | |
|--|---|
| ☐ STEEL RULE | ☐ STRIP HEATER |
| ☐ TENON SAW | ☐ BAND FACER |
| ☐ COPING SAW | ☐ PILLAR DRILL/ HAND DRILL |
| ☐ 2DDSIGN | ☐ WIRE WOOL |
| ☐ SOLIDWORKS | ☐ PAINT |
| ☐ TENSOL CEMENT | ☐ PAINT BRUSH |
| ☐ WET & DRY PAPER | |
| ☐ BUFFING MACHINE | |

CAREER LINKS, INDEPENDENT STUDY IDEAS

- CONTINUE SOLIDWORKS USING YOUTUBE TUTORIALS
- CONTINUE USING 2DDSIGN
- FUNCTIONAL & STATIC ANTHROPOMETRICS
- CAD DESIGNER

DT 2 MRS BINDON

KEY WORD	IMAGE	DEFINITION	KEY WORD	IMAGE	DEFINITION
Forces & stresses		Compression= squashing/ pushing force, Tension= pulling/ stretching force, Torsion= twisting force, Shear- mis-aligned forces sliding past each other, Bending- type of shear, load applied to one area	Finger joint		Fingers are cut into each side to be joined, this is usually an odd number in total.
Resist or work with forces		Layers of materials which add strength & rigidity, Folding- makes a material more flexible, Bending-reinforce/ stiffen a materials, Webbing- good tensile strength, woven fabric, Interfacing – adds strength to delicate fabrics.	Template		Used to draw around to ensure the same size and shape every time.
Design Specification		The success criteria used before you design items and then used to see how successful your making has been. Makes use of the ACCESS FM headings: Aesthetics, customer, cost, environment, size, safety, function, materials, making methods.	Wire wool		Fine metal mesh used for applying wax. Need to wear gloves to protect fingers.
			Beeswax		Used to add a sheen to timber. Provides a layer of protection to woods.
			Plywood		A manufactured board which is laminated in multiple layers for added strength.
			Strip heating		Used to make straight bends in plastics. Need to heat both sides to avoid the plastic burning or cracking.
2Ddesign		CAD software used to draw out designs for laser cutting. Red for cutting, black for etching. We tessellated our shapes to minimise waste.	Tensol cement		A solvent cement used to glue plastics together. It is applied along the join using a paintbrush. Goggles must be worn.
Production Aids		Used to help in the manufacture of products. They help speed up production & ensure consistency every time. Examples include; reference points, templates, jigs, patterns for textiles, patterns for casting.	Wet & dry paper		Can be used wet or dry on the edges of plastics to smooth and finish the edges.
Plan of Making		Used to explain how to make items. Used by the manufacturer and contains all the materials, equipment etc needed.	Buffing machine		Used to polish up both metals and plastics. A wheel spins and the material is offered up to it. Goggles must be worn.