

PRIOR LEARNING

- SECTION 3- MORE ABOUT MATERIALS
- WOOD JOINTS
- WOOD FINISHES
- WOOD PROCESSES

FUTURE LEARNING

- CHOOSING BEST TECHNIQUE DURING NEA
- USING TECHNIQUES IN YOUR WORK
- COMBINING TECHNIQUES WITH OTHER MATERIALS

CROSS CURRICULAR LINKS:

- ACCURATE MEASURING
- SCIENCE OF MATERIALS EG THERMOPLASTICS

DESIGN & TECHNOLOGY: YR10- METAL & PLASTIC WORKSHOPS

DESIGN

- PEWTER CAST ITEM
- LETTER PUNCH ITEM



MAKE

- PEWTER CASTING
- PRESS FORMING- LETTER PUNCHES
- JOINING METALS- RIVETS
- VACUUM FORMING
- FINGER JOINTS- ACRYLIC
- ADHESIVES- TENSOL CEMENT
- LASER CUTTING

EVALUATE

- REVIEW MAKING



TECHNICAL KNOWLEDGE

- JOINING TECHNIQUES- METALS, PLASTICS
- SHAPING TECHNIQUES- METALS, PLASTICS
- FINISHES- METALS, PLASTICS



EVIDENCE IN FOLDER



DIARY OF MAKING TO INCLUDE EVIDENCE OF:

- ☐ PEWTER CASTING
- ☐ LETTER PUNCHES
- ☐ VACUUM FORMING
- ☐ ACRYLIC FINGER JOINTS
- ☐ LASER CUTTING

TOOLS, EQUIPMENT & PROCESSES

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| ☐ PATTERN FOR CASTING | ☐ BRUSH |
| ☐ BRAZING HEARTH | ☐ TENSOL CEMENT |
| ☐ LETTER PUNCHES | ☐ WET & DRY PAPER |
| ☐ HAMMER | ☐ BUFFING MACHINE |
| ☐ RIVET GUN | ☐ 2D DESIGN |
| ☐ VACUUM FORMER | ☐ LASER CUTTING |
| ☐ VACUUM FORMING MOULD | |

CAREER LINKS, INDEPENDENT STUDY IDEAS

- MAKE YOUR OWN VACUUM FORMING MOULD
- MAKE YOUR OWN PATTERN FOR PEWTER CASTING
- CREATE BUTTONS, HANDLES, FEET ETC FROM PEWER
- WORK WITH CAD TO DESIGN ITEMS

DESIGN & TECHNOLOGY: YR10- METAL & PLASTIC WORKSHOPS



KEY WORD	IMAGE	DEFINITION	KEY WORD	IMAGE	DEFINITION
PEWTER CASTING		MOLTEN METAL IS POURED INTO A PATTERN (REPLICA OF WHAT IS TO BE MADE) AND ALLOWED TO COOL.	BUFFING MACHINE		USED TO GIVE METAL AND POLYMERS A SHINY FINISH.
PATTERN FOR CASTING		A PRODUCTION AID, A PATTERN IS THE EXACT SHAPE OF WHAT IS TO BE MADE.	VACUUM FORMER		PLASTIC FORMING PROCESS USING SHEET PLASTIC. SHEET IS HEATED, MOULD IS RAISED INTO FLEXIBLE SHEET, AIR REMOVED AND SHEET ALLOWED TO COOL.
BRAZING HEARTH		A GAS POWERED TORCH, USED TO HEAT UP THE PEWTER UNTIL A LIQUID. LEATHER APRON, FACE SHIELD AND GLOVES NEED TO BE WORN.	VACUUM FORMING MOULD		MOULD SHOULD HAVE DRAFT ANGLES (TAPERED SIDES) TO ALLOW FOR EASY REMOVAL. AIR HOLES AROUND EDGE TO GET A NEATER FINISH.
PRESS FORMING- letter punches		PUNCH (SHAPE REQUIRED) IS PUSHED INTO THE METAL SHEET UNDER FORCE.	LASER CUTTER		USED TO CUT & ETCH, WOODS, METALS, PLASTICS, FABRICS, PAPERS AND BOARDS. A SUBTRACTION CAM MACHINE TO MAKE 2D SHAPES.
RIVETS		A STANDARD COMPONENT USED TO JOIN SHEET METAL TOGETHER.			
POWER DRILL		USED TO MAKE HOLES IN A RANGE OF MATERIALS.			
TENSOL CEMENT		ADHESIVE USED TO ATTACH POLYMERS TOGETHER. WORKS BY FUSING THE LAYERS TOGETHER. GOGGLES MUST BE WORN.			
WET & DRY PAPER		USED WET TO SMOOTH THE EDGES OF METALS AND POLYMERS.			