



TOOT HILL DESIGN TECHNOLOGY DEPARTMENT

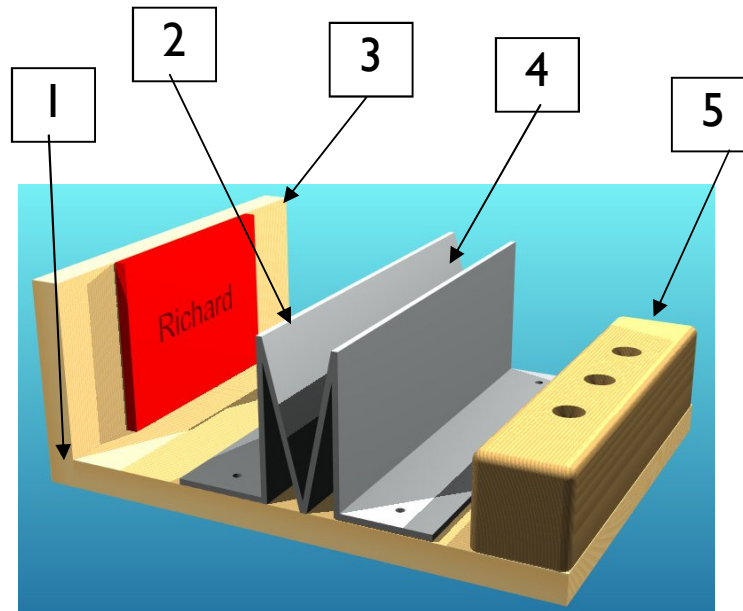
YR 8 DESK TIDY



In this project you will learn:

- Research Skills.
- Health and Safety
- Practical Skills
- Quality Control
- Lap Joints
- Marking out skills
- Cutting Plastics
- Assembly methods

PRODUCT ANALYSIS



KEY WORDS

Letter Holder Pens/ Pencils Plywood

Plastic Lap Joint Screws

PRODUCT ANALYSIS

TASK 1: Look at the drawing of the desk tidy on the previous page and correctly name the 5 different components.

- 1.....
- 2.....
- 3.....
- 4.....
- 5.....

TASK 2: Complete the following sentences using the Key words on the previous page.

LITERACY

Theis made from plastic, which is called High Impact Polystyrene.

Ais used to join the wooden base and side of the desk tidy together

.....is the material used to make the base and the side of the desk tidy.

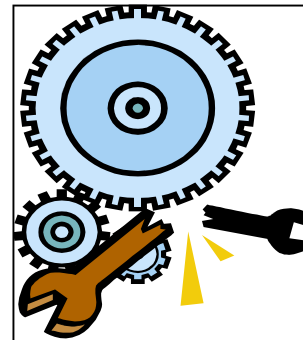
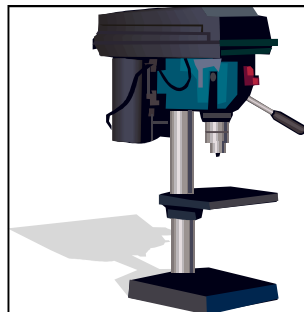
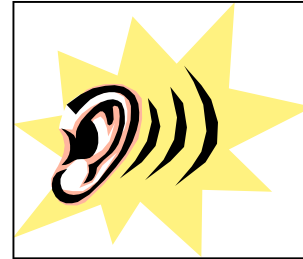
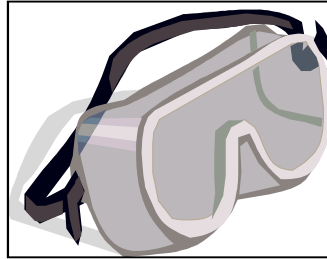
A block of plywood is drilled to create holes for and

The plastic letter holder is attached to the base using wood.....



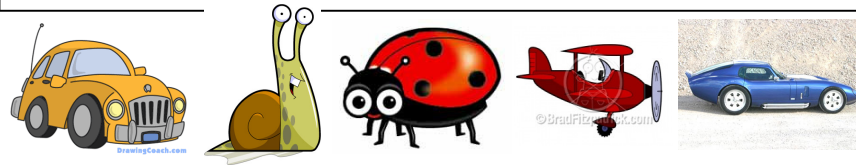
HEALTH & SAFETY- HOMEWORK

TASK 3: During today's lesson you will learn several safety rules when working in the workshop. Design a safety poster in your exercise book explaining 4 basic rules of the workshop. Make sure it is clear and bold. You will be marked on your presentation.



RESEARCH

Task 4. Using the internet find pictures of objects or items that could help you when drawing your initial ideas. Produce an A4 page of as many different images as you can. Print your page of images and glue it into your exercise book.



Design ideas

Task 5. Draw as many different shape as you can for your plastic letter holder and side frame of the desk tidy. Annotate your designs and state which ones you prefer and why.

Remember to refer to the Assessment For Learning objectives on the wall in your classroom.



Making a Template

Task 6: Once you have completed your ideas choose your favourite design and copy it (to scale) onto graph paper. Your teacher will help you with this during the lesson.

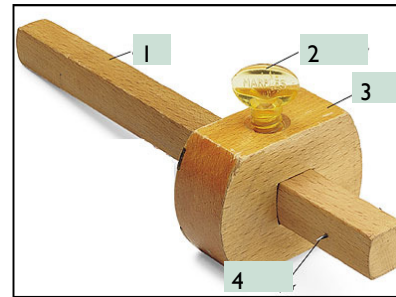
NUMERACY !



USING A MARKING GAUGE

TASK 7: Draw a side view of a marking gauge in your exercise book and label the different components of a marking gauge.

- Fence
- Spur
- Locking Screw
- Handle



TASK 8: Using a steel rule practise setting the marking gauge to the following measurements.

1. 10 mm
2. 25mm
3. 36 mm
4. 49 mm
5. 6 mm



Remember, always measure from the end of the ruler to the top of the spur!






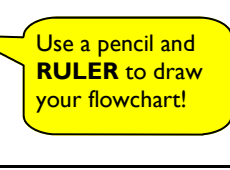


NUMERACY!

TASK 9: Why should you measure from the top of the spur and not the bottom?

LAP JOINT- HOMEWORK

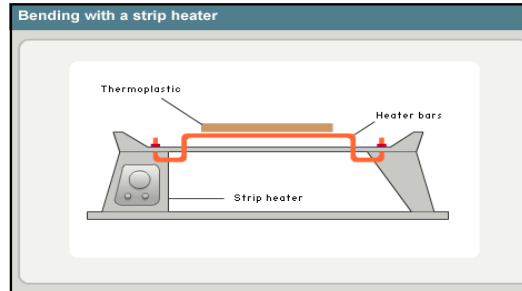


Task 10. Copy and complete the flowchart below filling in the missing words from the key words column. Complete this on a blank page in your exercise book

PROCESS	PICTURE	KEY WORDS
START		Test
1. Mark out your lap joint using a & a		Marking gauge
2.your base to the table with a scrap piece of wood with aalong side your lap joint.		G Clamp
3. Using acut through the lap joint half way through the wood using the scrap piece of wood as a		Tenon Saw
4. Place your base into aand now cut the end of the Lap Joint. Cut on the side of the joint		Guide
5. Using apair away any loose splinters of wood		Wood Vice
6.the joint.		Straight edge
STOP		Waste wood
	Use a pencil and RULER to draw your flowchart!	Chisel
		Ruler

STRIP HEATER- BENDING PLASTICS

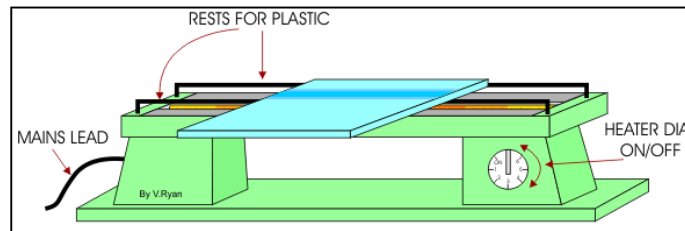
Task 11. Copy the diagram below into your exercise book and label the different parts of a strip heater.



Task 12. You will be given a demonstration on how to bend plastics using a strip heater. Some key processes are described in the table below ,however, these are not in the correct order. Rewrite the table putting the sentences in the correct order. Go onto the following website to learn more.

<http://www.technologystudent.com/joints/desk17.htm>

Heat both sides of the line that you are trying to bend	Put on heat protective gloves
Turn off Strip Heater	Place plastic on heater bars
Turn on Strip Heater	Do not leave plastic on the strip heater unattended.
Bend the line using a mould	Mark out lines for bending



MATERIALS- PLASTICS

Task 13. Using board works write 5 characteristics of thermo plastics and 5 characteristics of Thermosetting plastics. Give an example of each.

THERMO PLASTICS

Characteristics	Example
1	
2	
3	
4	
5	

PLASTICS

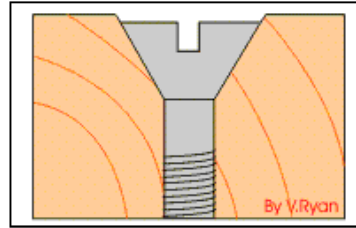
THERMOSETTING PLASTICS

Characteristics	Example
1	
2	
3	
4	
5	



WOOD SCREWS - HOMEWORK

TASK 14: You will be using wood screws to attach your plastic letter holder to the base of your desk tidy. Copy out the following information into your exercise book being careful with your presentation. Use PROUD! Use a ruler to draw your diagrams



COUNTERSUNK - SLOT HEAD: This can be used for general woodworking for example fitting hinges to doors. Because the screw is countersunk it can be tightened 'flush' to the surface of the material.



COUNTERSINK BIT: This is used so that the countersink of the screw fits flush in the materials being used.



SCREW DRIVER: This tool is used to drive the screws into the material. You can have different types, one for slot screws and one for posidrive screws.



DESK TIDY EVALUATION

1. I worked to deadlines in class and with my home-work.

2. I've worked with numbers to mark out parts of the product

3. I produced a quality market-able product.

4. I have tried to raise the standard of my achievement.

5. I have tried to ensure that my written work is presented appropriately and neatly.

6. I have enjoyed the project

7. I carefully followed Health & Safety rules at all times.

8. I behaved appropriately and responded promptly to teacher instruction.

3 things I have learnt which I can use in my next module:

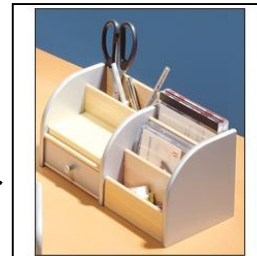
3 things I need to improve in the next module:

Task 15: Complete the above exercise in your book. Take a photograph of your finished toy and glue it into your book. Remember to refer to the Assessment for learning charts on the wall in the classroom!

KEY WORDS

Task 16: Learn the definition and spelling of the following key words.

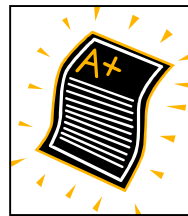
1. Safety
2. Ply wood
3. Millimetres
4. Steel Rule
5. Coping Saw
6. Marking Gauge
7. Twist Drill Bit
8. Template
9. Cross File
10. Draw file
11. Initial Ideas
12. Sand Paper
13. Evaluate
14. Wood Stain
15. Strip Heater
16. High Impact Polystyrene
17. Thermoplastic
18. Thermosetting Plastic
19. Assemble
20. Polyvinyl acetate glue
21. Slot headed screw
22. Pozi screw
23. Slot headed screw driver
24. Posidrive screw driver
25. Countersink



END OF MODULE TEST

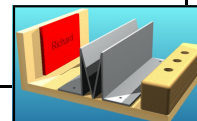
Task 17: Read the question carefully and write your answers clearly in your exercise books. Make sure you spell all key words correctly and use a ruler to draw any diagrams.

1. Name 3 safety rules when using a pillar drill
2. What does the yellow and black tape indicate on the floor around machines?
3. What tool do you use to measure millimetres?
4. What wood joint did you make on your desk tidy?
5. What tool did you use to mark out the joint?
6. What joint did you use when making your desk tidy?
7. Draw and label a marking gauge showing where the fence, spur, handle and locking screw is.
8. Why do you always measure from the top of the spur?
9. When cutting out lap joint what type of saw did you use?
10. What tool did you use to remove small splinters of wood from your joint after you had cut it out?
11. What was the technique used called for removing small splinters of wood?
12. What machine did you use to bend plastic?
13. Name 1 characteristic of a thermoplastic
14. Name 1 characteristic of a thermosetting plastic.
15. Name 1 Thermoplastic
16. Name 1 thermosetting plastic.
17. You are to redesign one aspect of your desk tidy. Using pictures explain your modification.



HOMEWORK- DESK TIDY PROJECT

Week	Task	Page in booklet
1	Safety Poster	Page 4- Task 3
2		
3	Lap Joint	Page 7- Task 10
4.		
5.	Strip Heater	Page 8-Task 12
6.		
7.	Wood Screws	Page 10- Task 14



PROGRESS FEEDBACK SHEET

Section	Student level	Teacher Level	Teacher Comment
Health and Safety			
Measuring			
Initial Ideas			
Practical			
Homework			

Student Target Comment

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Teacher Target Comment

Final Level