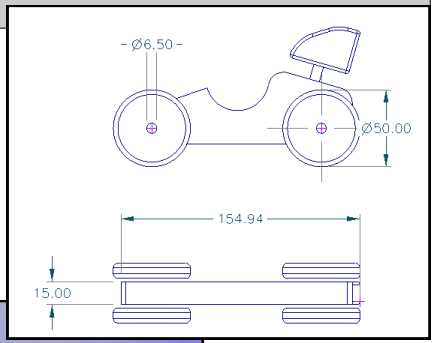
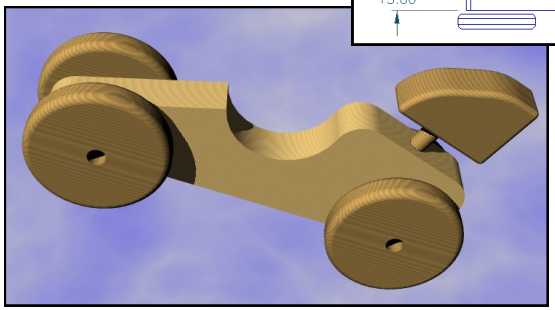
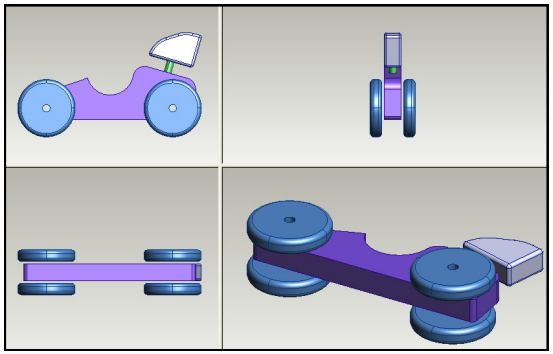
TOOT HILL DESIGN TECHNOLOGY DEPARTMENT

YR 7 CAR PROJECT







In this project you will learn:

Research Skills.

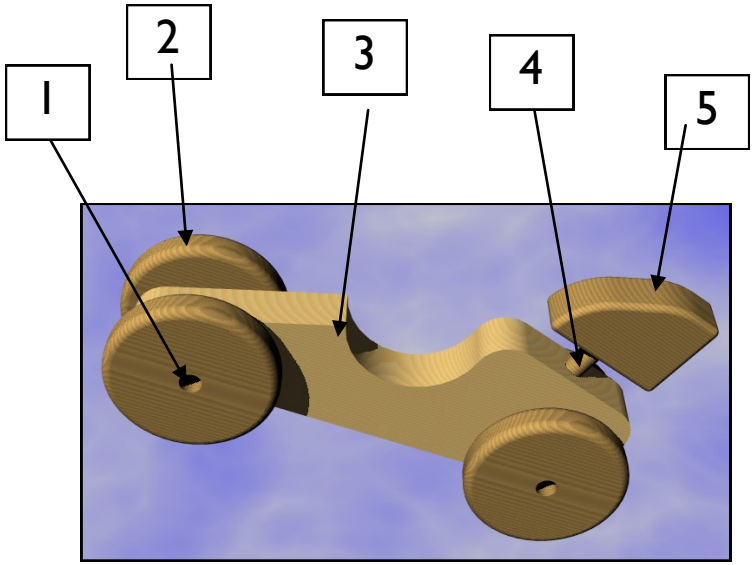
Health and Safety

Practical Skills

Quality Control

Generating ideas

PRODUCT ANALYSIS



KEY WORDS

CAR BODY	WHEELS	AXLE
SPOILER	DOWEL	WOOD

Progress Feedback Sheet

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

Student Target Comment

Teacher Target Comment
Final Level

HOMEWORK

Week	Task	Done?
1	Using the internet find 2 examples of wooden toys and write a description about them. Write about the COST, FUNCTION, and aesthetics	
2	On A4 paper, or in your exercise book design a safety poster to highlight the dangers that could occur if the safety rules are not followed!	
3	Draw on graph paper the size of your material that you will use to manufacture your car.	
4.	Complete your initial ideas. Try to present them as clearly as you can, Include colour and sentences explaining which idea you like the most.	
5.	Find some old card from home to make a template for another design from your initial ideas.	
6.	Using the internet find and print a picture of Pine , Oak and Plywood	
7.	Complete the evaluation exercise for your last lesson.	

PRODUCT ANALYSIS

TASK 1: Look at the drawing of the car on the previous page and correctly name the components of the car.

1…….

2……..

3……...

4……...

5……...

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

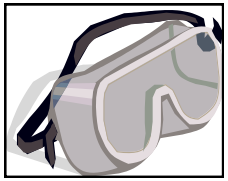
LITERACY

- The…… of the car enable the toy to be pushed along a surface.
- The wheels are glued to the…….. These are then positioned inside the car body.
- On a real car a ……..is used to give you more grip when driving. It is also used to make a car look sporty.
- …… is used to fix the spoiler to the car and also used to make the axles.
- The material used to manufacture the car is …….

Health and Safety

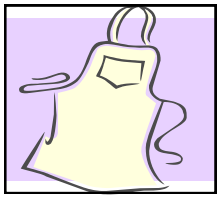
TASK 3: During today's lesson you will learn several safety rules when working in the workshop. Answer the following questions

Why is it important to listen to all instructions at the start of a practical session?



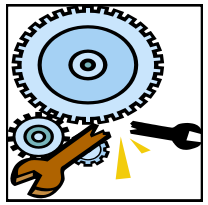
Why is it important to wear safety glasses?

Write an example of when you would wear them.



Why is it important to wear an apron during practical lessons?

You should not run in the workshop. Why?



What should you do If you find something in the workshop which appears to be broken?

End of Module Test

Task 15: 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 is a coniferous tree?
4. What is an evergreen tree?
5. Write one example of hardwood.
6. Write one example of softwood.
7. What tool do you use to measure millimetres?
8. What is the name of the tool used for drilling the cockpit or window in your car?
9. What is the name of the tool used for drilling your axle holes?
10. Name device used to help change a drill bit in the pillar drill.
11. Name the tool to cut out your design in wood?
12. What is the name of the hand tool used to make edges of wood smooth?
13. Name 2 different methods of using a file.
14. When using sand paper to clean surfaces of wood what rule must you always follow?
15. Why should you always drill holes before cutting out material using a saw?
16. What material was used for the axles of your car?
17. Name 2 methods of researching existing toy cars?
18. Why should you paint the different components of your car before gluing?
19. Using pictures and annotations, explain hoe you could improve the design of your car.
20. What did you use to colour your toy car?

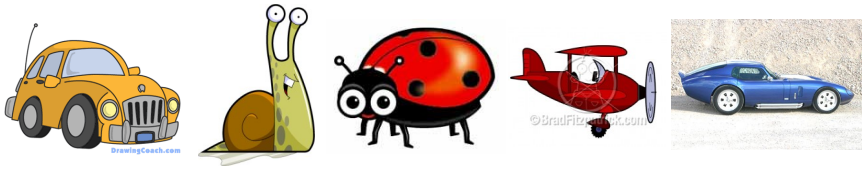
KEY WORDS

Task 14: Learn the definition and spelling of the following key words.

1. Safety
2. Man made wood
3. Soft Wood
4. Hard Wood
5. Millimetres
6. Steel Rule
7. Coping Saw
8. Forstner Bit
9. Twist Drill Bit
10. Template
11. Cross File
12. Draw file
13. Initial Ideas
14. Sand Paper
15. Evaluate
16. Wood Stain
17. Medium Density Fibreboard
18. Pine
19. Oak
20. Plywood
21. Assemble
22. Polyvinyl acetate glue
23. Axle
24. Spoiler
25. Wheels

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 car. 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 and mark out the axle holes and cockpit hole. Your teacher will help you with this during the lesson.

NUMERACY !

Measuring with a Steel Rule.

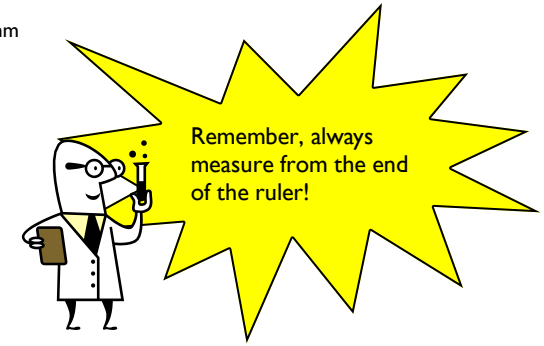
TASK 7: Using a steel rule and sharp pencil draw in the space below a line to the following measurements.

1. 10 mm
2. 20mm
3. 30mm
4. 40mm
5. 50mm

NUMERACY !

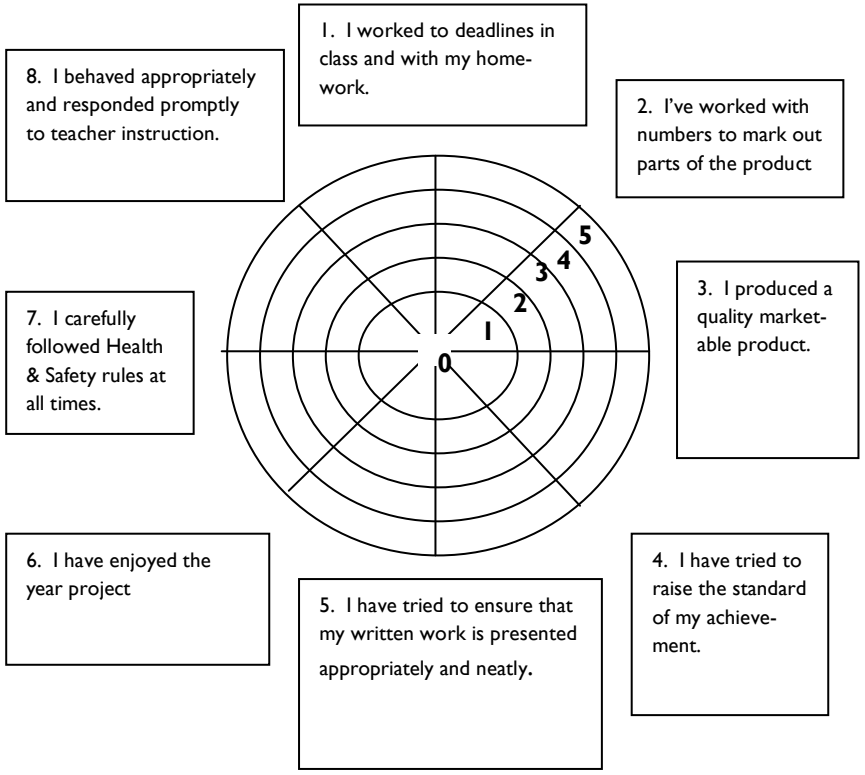
TASK 8: Using a steel rule and sharp pencil draw a rectangle to the following measurement.

1. 10 mm x 20mm
2. 20mm x 30 mm
3. 30mm x 50mm
4. 40mm x 10mm
5. 50mm x 5mm



NAME DT TEACHER

Evaluation



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

_____

_____

_____

3 things I need to improve in the next module:

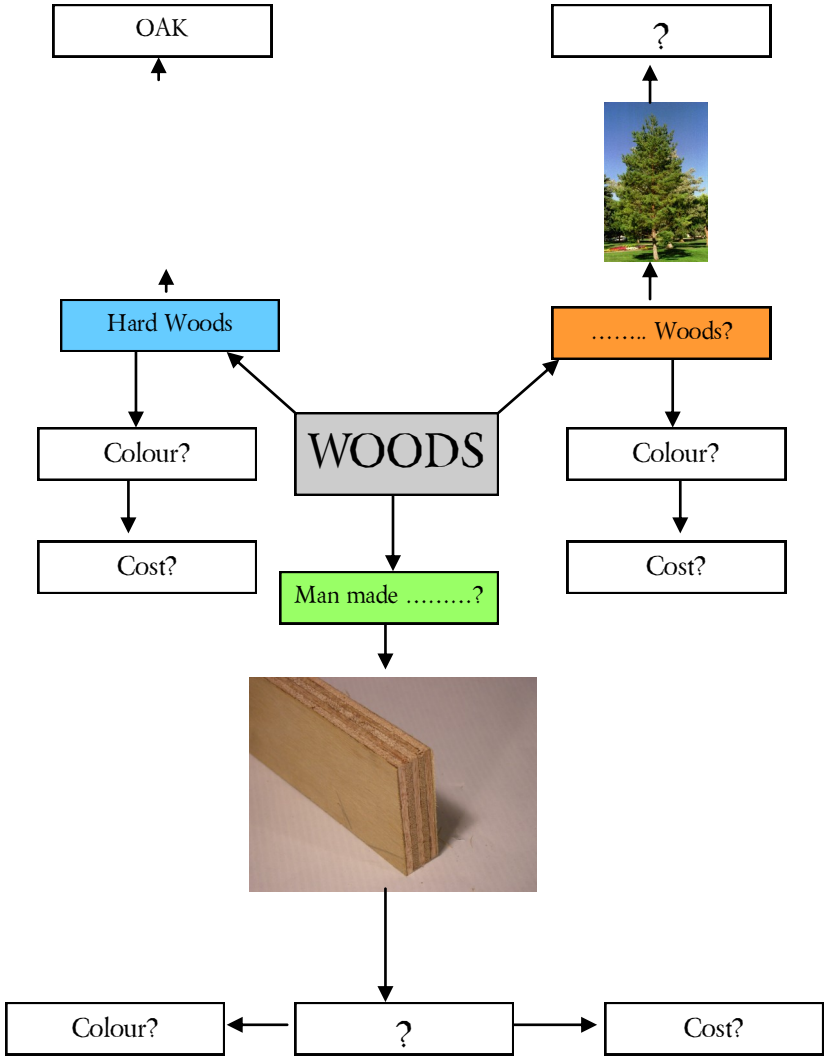
_____

_____

Task 13: 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!

Woods

TASK 12: Complete the missing words and draw a picture of the following items in the mind map below.



Tools

Task 9. Copy and complete the table below by stating the name of the tools and how they will be used to manufacture your car.

PICTURE	TOOL NAME	USE?
		
		
		
		
		

Planning

Task 10. Copy the table below and state the order of manufacture for your toy car. Use the key words below.

Process	Tools	Health and Safety
1.	Pencil, Graph paper	
2.	Wood, Pencil	
3.	Pillar Drill, 6.5 mm drill bit and Forstner Bit	
4.	Coping Saw	
5.	Belt Sander, Files and sand paper	
6.	Coping saw	
7.	Wood Stain and PVA glue.	

Make template Drill axle holes and cockpit hole Draw around template

Paint and assemble Sand down rough edges

Cut out car Cut axles using dowel

Materials

Task 11. Using the text books provided write down the explanation for the following terms.

1. **Softwood** comes from a……..tree
It sheds its leaves in ……, it is used to make……..An example is ……..

2. **Hardwood** comes from……..
Tree.
It sheds its leaves in ……., it is used to make…….
An example is…….

3. **Manmade** wood is a mixture of ……...
It is used to make…… An example is ……. It is generally used to make……..