

Y8 ROADMAP – DESIGN & TECHNOLOGY

Subject Aim: You developed your confidence and skills in year 7 Design and Technology. Year 8 builds on this and allows you to create more realised finished products using timbers and electronics. You will develop your knowledge of the design cycle and explore how designers develop and test ideas.

TERM 1

Why is planning and accuracy important when making something?

In this project you will learn all about timbers. You will explore different tree types and how it links to sustainability. You will develop your skills in 3D drawing and rendering to communicate your design ideas as well as learning how to plan for a practical. You will be shown how to use a range of tools for marking and measuring to help make your work accurate. You will develop your skills in using different saws to make your wooden storage box. You will then learn different finishing techniques to make a high quality outcome using these valuable materials.

TERM 2

TERM 3

Why is structure important?

Structures are all around us both in nature and the man made world. Having an understanding of structure is important when designing things such as buildings and bridges. You will learn how to apply mathematics and physics when designing structures. You will also have the opportunity to work collaboratively to design and make structures using different materials. You will have the opportunity to test out your designs. You will also be shown how to use computer software to test out and cost your own designs.

TERM 4

What is a micro bit?

This project provides you with an opportunity to learn about computing and the use of electronics to embed intelligence in to products which respond to inputs and control outputs, using programable components. You will learn how to use BBC microbit technology to make a pressure pad suitable for use in sports.

TERM 5

TERM 6

How can nature influence design?

Designers look for inspiration from many places and nature is one of them. In this unit you will explore biomimicry and learn how to use the design cycle to generate ideas for your own response to a brief on the theme of nature.



ASSESSMENT

- In technology your work is assessed against different areas including designing, making, knowledge and evaluation.
- Your teachers will be looking at the work you are doing in lessons and offering suggestions about how to develop and improve it.
- You will learn how to peer assess work to support your development.
- During your lessons your teachers will assess your knowledge and understanding in a range of ways including retrieval tasks .
- For each unit you will have an assessment which covers the key knowledge within each project as well as some longer questions where you can apply your understanding.



INDEPENDENT LEARNING

- Knowledge Organisers are expected to be used weekly to support the learning and recap of key vocabulary as the course progresses.
- There will be various independent learning challenges set each half-term which will allow you to develop your subject specialist skills as well as knowledge and understanding.



ENRICHMENT

What Next? Year 8 builds on your foundation of skills in the kitchen and begins to introduce more complex skills and processes such as bread making and food science. You will develop your understanding of healthy eating by learning about nutrients and their role in the diet.