

Curriculum Sequencing - Year 9

Year 9 Challenge Tasks: Structures and PLTS

Topics covered:

PLTS

Structures and forces Health and safety in the workshop The design process Tools and Equipment used to cast and finish metals Group work skills and soft skills

Modelling and prototyping

How it links to what you have studied before:

In your previous projects you will have learnt about a range of materials. This will allow you to broaden your knowledge of structures and forces. You will work within teams to develop your skills.

How it links to what you will study:

The theory and practical work will allow you to experiment and develop your skills to allow you to design, make and evaluate your own design ideas.

Key words:

skills

Hazard, Control Measure, risk, Mass, Frame, Shell, Complex, Tension, Torsion, Shear, Bend, centrifugal, static, dynamic load, struts ties, gussets, triangulation, modelling, net scoring, corrugated card, Brief, Specification and Evaluation

Key skills:

Designing and generating Design Ideas Making skills including sawing, sanding and soldering **Evaluating skills**

Assessment focus

Designing and generation of ideas Making skills and safety through the practical **Evaluation skill**

Theory through a Google quiz on key theory

Revision tips

Use the revision materials on the Google site.

https://sites.google.com/worthinghigh.net/designtechnology/ks3/year-9/pewter-casting

Why we study it: Design and technology provides skills for life and future careers. This topic will teach you how to prototype ideas, develop modelling skills and will increase your personal learning and thinking skills. These are all highly important skills for numerous careers but this could lead to careers in product design, architecture, graphic design, engineering to name a few.

Mastery in this subject: Independent, problem solving, collaborative when working and able to model to an excellent finish. Students will be able to score 80% or above within their knowledge quiz.



