Curriculum Sequencing - Year 8



Year 8 Mechanisms: Mechanisms and Systems

Topics covered:

- Mechanisms
 (levers/ cams/ linkages and gears)
- Health and safety in the workshop
- The design process
- Systems
- Tools and Equipment used to shape and form manufactured boards and woods

How it links to what you have studied before:

In your previous projects you will have learnt about woods and manufactured boards. This will introduce you to mechanisms and teach you how to make mechanical devices..

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:

Hazard, Control Measure, risk, Graphics, Perspective drawing Systems and control, Coping saw, Try Square, Tenon saw, Comb joint, Beltsander, Sandpaper, Gritt, Adhesive, PVA, Finish, hand drill, bench hook pillar drill, dowel, Manufactured boards, MDF, Plywood, composites, Hardwoods, Oak, Teak, Softwoods, Pine, Metals, Ferrous, Non ferrous, Emboss, Engrave, 2D design, CAD, CAM laser cutter, lever, linkage bell crank, crank and slider, parallel motion, reverse motion, treadle, linear, oscillating, reciprocating, rotary, cam pear, heart, eccentric, follower, 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

Revision tips

Use the revision materials on the Google site.

https://sites.google.com/worthinghigh.net/design-technology/ks3/year-8/year-8-mechanisms

Theory through a Google quiz on key theory

Why we study it: Design and technology provides skills for life and future careers. This topic will teach you how to work with woods and timbers, use mechanical systems and will help you develop your design skills. This could lead to careers in mechanics, systems design, product design, CAD/ CAM, graphic design or carpentry or wood work.

Mastery in this subject: Independent, problem solving, accuracy with the mechanism and an excellent paint finish on their product. Students will be able to score 80% or above within their knowledge quiz.

Year 8 Textiles Sustainable Monsters: Textiles

Topics covered:

- Textiles and technical textiles
- Health and safety in the workshop
- The design process
- Sustainable and moral design issues
- Tools and Equipment used to shape and join textiles

How it links to what you have studied before:

In your previous project you learnt how to shape and form woods and composites, work with plastics and boards. This will give you more in depth knowledge of a range of different materials including textiles.

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:

Hazard, Control Measure, risk, Textiles, Applique, Trapunto, Embroidery sewing seam allowance,

Key skills:

Designing and generating Design Ideas

Making skills including sawing, sanding and soldering

chalk pencil, needle, dressmakers pins, fabric scissors, running stitch, backstitch, ladder stitch, buttons, CAD, CAM, Sustainability, reduce, repair, recycle, rethink, refuse, reuse, obsolescence, inclusive design, renewable, non renewable, cotton, wool, weaving, bonded fabrics, knitted fabrics, kevlar, Gortex, thermochromic, smart materials, Brief, Specification and Evaluation

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-8/year-8-textiles

Why we study it: Design and technology provides skills for life and future careers. This topic will teach you how to work with textiles, smart materials and about sustainability and will help you develop your design skills. This could lead to careers in textile design, the fashion industry, working with composites, CAD/ CAM or graphic design.

Mastery in this subject: Independent, problem solving, accuracy with the sewing and excellent applique on their product. Students will be able to score 80% or above within their knowledge quiz.



