DT - Textiles - Must Knows - Upper KS2

Keeping Safe

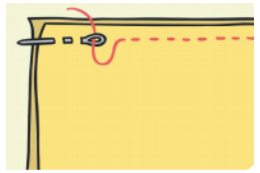
Equipment that you are using can be sharp. Be careful when using and never run when holding them.

Scissors
Cut away from yourself. Turn the material when at a corner. Hold with the blade down when passing or walking with them

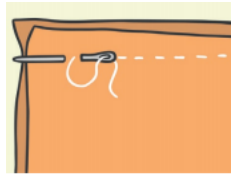
Long hair should be tied back.

Previously learned vocabulary	
Back stitch	Cross stitch
Applique (sew onto other fabrics)	Pattern
Fastening	finishing technique
seam	Annotated sketch

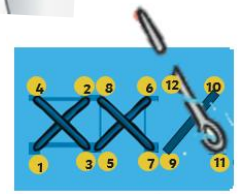
You should already know....



running stitch

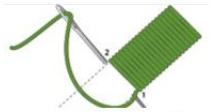


backstitch

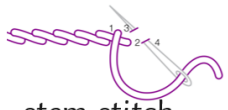


cross stitch

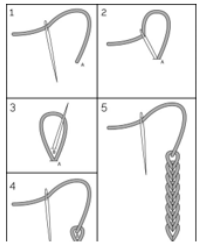
Technical Skills - Stitches



satin stitch



stem stitch

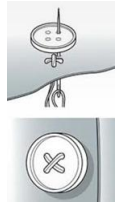


chain stitch

- Learn how to sew using a satin stitch, stem stich and chain stitch.
- Join fabrics together using any of the previously learnt stitches.

Technical Skills - Decoration

- Sew fabric onto other fabric (applique)
- Attach buttons for purpose or decoration

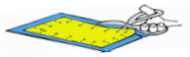


Technical Skills - Fasteners

- Chose an appropriate fastener for the design brief.
- Attach fastener using an appropriate stitch.

Technical Skills - Pattern cutting

- Create a pattern using paper or card.
- Position it so we don't waste fabric
- Pin template to fabric so it doesn't move.
- Cut out carefully with fabric scissors.

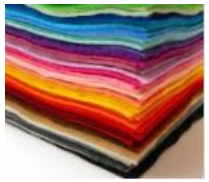


Equipment

fabric scissors

needle and thread

needle threader



felt

Items for decoration

fasteners

Famous Designers

from history William Morris / contemporary- Research own designer that uses nature in their work

William Morris

British Designer in 1800s. Created many floral patterns with repeating patterns.

New Vocabulary	
Aesthetic	Satin stitch
Chain stitch	Stem stitch
Functional	Prototype
Purpose	Design specification

DT - Structures - Must Knows - Upper KS2

Top Vocabulary	
nailing	Sanding
Appropriate	Construction shape

Previously learnt vocabulary				
stable	gluing	materials	structure	strengthen
product	construct	repair	support	purpose

Keeping Safe

Keep your work area clear.

Listen carefully to all instructions.

children should not hold nails with their fingers.

Walk around the classroom.

Long hair tied back

Technical Knowledge

Independently work through these steps to create a structure with purpose.

Prototype- a simple model that lets you test out your idea.

Mark out- to measure or mark of piece of material that needs to be cut or shaped.

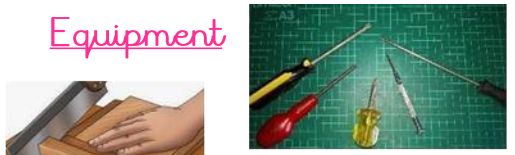
Reinforce- make a structure stronger by adding another material or element.

Modify- to change something to improve it.

Evaluate- look at how well the final product works and think of some improvement points for next time.

Equipment

Junior hacksaw



Screwdrivers

Bench hook

Sand paper

Hammer and nails

Glue

Hand drill

Famous Designers

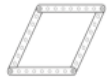
William Paterson and Oscar Carl (Karl) Kerrison- from history

The Anderson shelter was an air raid shelter designed to accommodate up to six people. It was designed in 1938 by William Paterson and Oscar Carl (Karl) Kerrison in response to request from the Home Office.

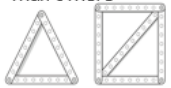
You should already know....

3D shapes are stronger and more stable with a wider base. Pyramid b here will be more stable.

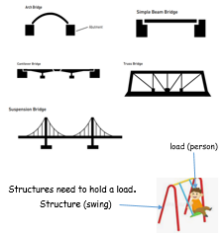
Some shapes and structures are stronger than others



This is easy to push over



Strong or reinforced shapes can't be pushed over



Technical Skills -

- Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).
- Show an understanding of the qualities of materials to choose appropriate tools to cut and shape (such as the nature of fabric may require sharper scissors than would be used to cut paper).
- Develop a range of practical skills to create products (such as cutting, nailing, gluing, and sanding).
- Choose appropriate materials to strengthen and structure.
- Understanding that different construction shapes are stronger and better suited to different tasks.

DT – Mechanisms and Mechanical Systems- Must Knows – Upper KS2

Top Vocabulary		
gear	electronics	cam

Previously Learnt Vocabulary		
Product	Mechanism	Lever
Pop up	Slider	Split pin
Wheel	Axel	chassis
linkage	pivot	Guide/ bridge

Keeping Safe

Listen carefully to all instructions.

Keep your work area clear.

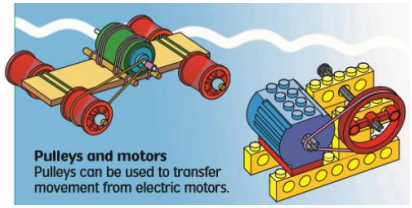
Walk around the classroom.

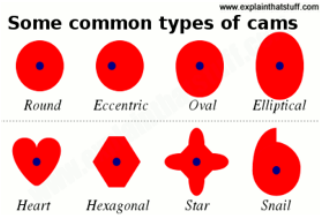
Long hair tied back

Technical Skills

Linear motion – straight line

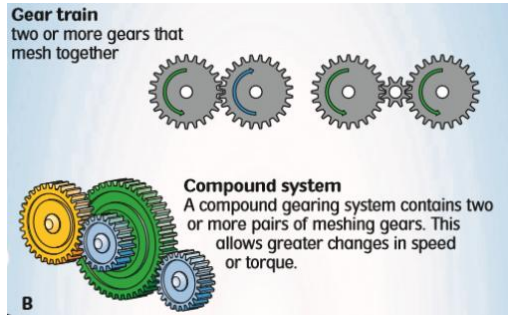
Rotary motion – turning in a circle





The eccentric cam – this rotates as it is fixed to the axle which is turned by the handle.

The follower cam – the eccentric cam causes the follower to move up and down (linear) and rotate.



Equipment

K'nex

Cams kits

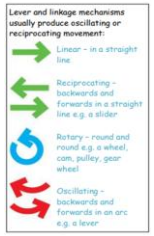
Hand drill

Famous Designers

Rosie the Riveter

Rosie the Riveter was an allegorical cultural icon of World War II, representing the women who worked in factories and shipyards during World War II, many of whom produced munitions and war supplies. These women sometimes took entirely new jobs replacing the male workers who joined the military.

You should already know....



Technical Skills -

Use innovative combinations of electronics (or computing) and mechanics in product designs.

Begin to use combinations of electronics (or computing) and mechanics in product designs.

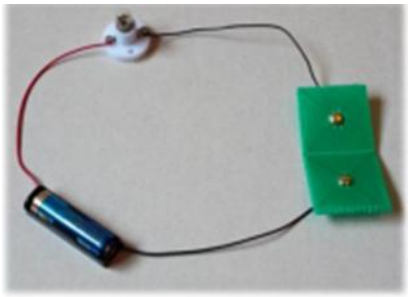
Explore & use mechanical systems (gears, pulleys and cams)

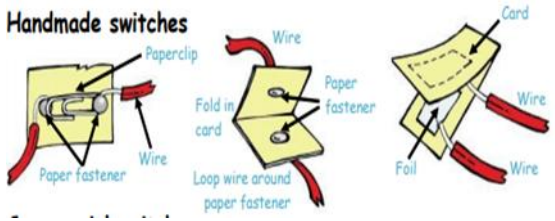
DT – Electrical Systems- Must Knows – Upper KS2

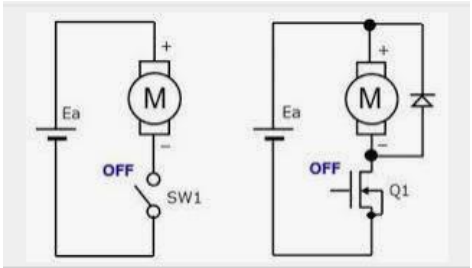
Top Vocabulary	
Complex circuit	motor
code	Switches

Previously Learnt Vocabulary	
Electrical system	Electronics
Series circuit	Bulb
Cell	Wires

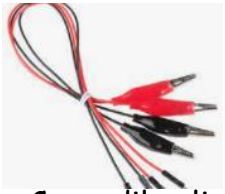
Technical Skills



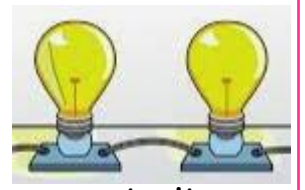




Equipment



Crocodile clips and wires



bulb

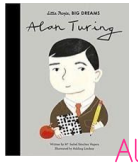
switch

Power source

motor

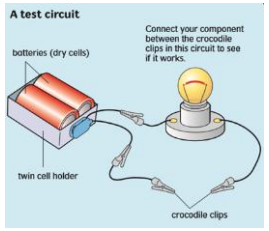
Famous Designers

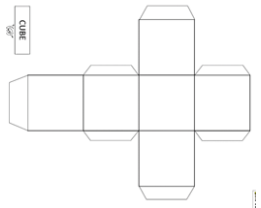
Steven Paul Jobs was an American business magnate, industrial designer, investor, and media proprietor.



Alan Mathison Turing OBE FRS was an English mathematician, computer scientist, logician, cryptanalyst, philosopher, and theoretical biologist.

You should already know....





Technical Skills -

Create more complex circuits using electronics kits (with bulbs, switches and motors)

Write code to control and monitor models or products ..