

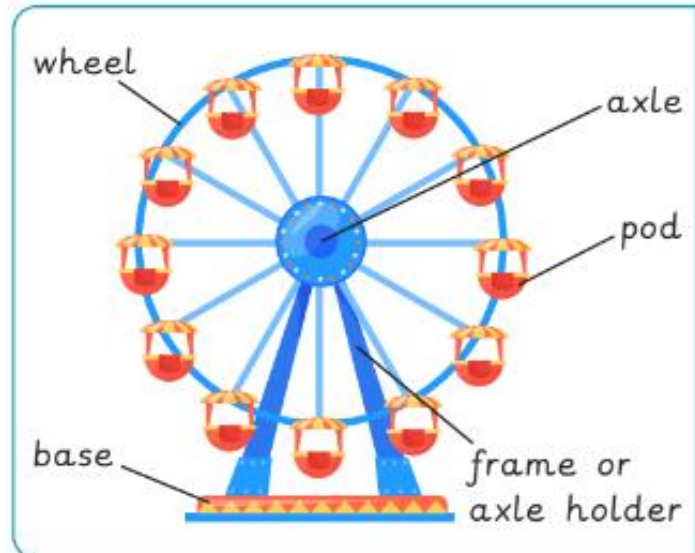


Year 2

Knowledge Organisers

Design & Technology

axle	A long, straight piece of material which connects to a rotating part (e.g. the wheels of a car).
design brief	A challenge that asks for something to be designed.
design criteria	A set of instructions for the project.
evaluation	Looking at what is good and bad about something and thinking about how to make it better.
Ferris wheel	A ride at a fairground which carries passengers around a large, vertical wheel.
mechanism	The parts of an object that move together as part of a machine.
pod	The container which carries passengers around the fairground wheel.
survey	Questions used to find out what people like.



Materials have different properties. A **fairground wheel** design needs to be **stable** and **strong**. Which materials could be used?



Bricks are made from clay. They are stiff and strong.



Wood comes from trees. It is strong and flexible.



Metal comes from mining ore in the ground. It is strong and hard.

Structures - Baby bear's chair

Function	How something works.
Man-made	Made by people.
Mould	To form different shapes out of soft, squishy materials.
Natural	Found in nature e.g. spider's web, sheep's wool.
Stable	Object does not easily topple over.
Stiff	A material or object that does not bend easily (e.g. wood).
Strong	Something that is not easily broken (e.g. wood, brick, building).
Structure	Something that has been made and put together and can usually stand on its own (e.g. a building, a bridge, a chair).
Test	To find out whether something works as it should.
Weak	Something that is easily broken (e.g. paper, egg shells).

Natural Objects



Man-made Objects



Key facts

Often structures have a certain function, they are made to do something. e.g. Chairs are for sitting on.



They should be **stable**, **strong** and comfortable.
Was baby bear's chair **stable** and **strong**?

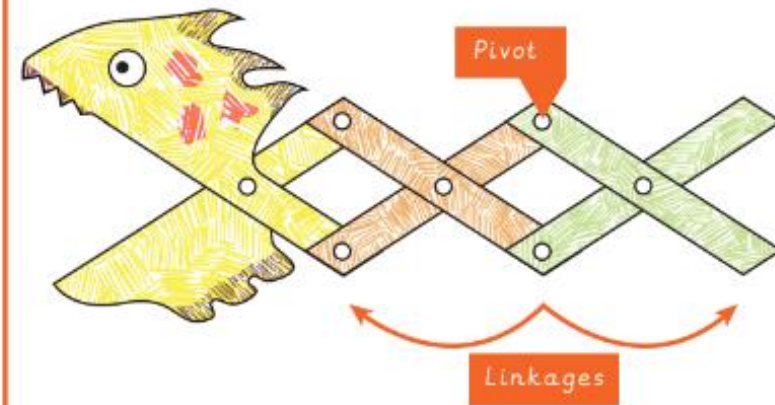


Mechanisms - Making a moving monster

Design criteria	A set of rules to help designers focus their ideas and test the success of them.
Evaluation	When you look at the good and bad points about something, then think about how you could improve it.
Input	The energy that is used to start something working.
Linkage	Lengths of material (for example, metal or card) that are joined together by pivots, so that the links can move as part of a mechanism.
Mechanical	Something that can move because several pieces work together like a machine.
Mechanism	A collection of parts that work together to create a movement, eg: a bicycle.
Output	Output is the motion that happens as a result of starting the input.
Pivot	The central point, pin, or shaft on which a mechanism turns or swings.
Survey	To ask a group of people questions about something and to use their answers to make improvements.

Key facts

Moving monster



What materials could you use to represent fur, scales and claws?

The four types of motion:



Linear motion.
Movement in a straight line in any one direction.



Reciprocating motion.
Movement in a straight line, back and forth, in any direction.



Rotary motion.
Movement in a circular motion.



Oscillating motion.
Movement in a curve, back and forth.

Textiles - Pouches

Accurate	Neat, correct shape, size and pattern with no mistakes.
Fabric	A natural or man-made woven or knitted material that is made from plant fibres, animal fur or synthetic material.
Knot	A join made by tying two pieces of string or rope together.
Pouch	A small bag made to keep objects safe and to be carried easily.
Running-stitch	A simple style of sewing in a straight line with no overlapping.
Sew	To join or fasten by stitches made using a needle and thread.
Shape	The form of an object.
Stencil	A shape that you can draw around.
Template	A stencil which you use to help you draw a shape more easily on to different materials.
Thimble	A small metal cap to cover and protect your finger when sewing.

Here are some examples of sewn products:



Key facts

Remember to plan where your stitches will go on the pouch **template**.



When cutting the **template** out, be careful and as **accurate** as possible.



Eye of the needle



Remember to tie a knot at the other end of your thread before sewing. Ask an adult if you are stuck.

Cooking and nutrition - A balanced diet

balanced	A healthy mixture of different kinds of food.
diet	The types of food someone eats.
evaluate	To study something carefully and decide if it is good or bad.
feel	The way something seems when you touch it.
grate	To break food such as cheese into small, thin pieces.
menu	A list of food and drinks that you can order.
review	To give an opinion about something.
smell	Information we detect about something using our nose.
snip	To make small cuts with scissors.
spread	To cover something with soft food.
taste	The flavour of a food.

Skills



cutting



grating



spreading



snipping



taste testing

Key facts



The five different food groups are:

1. Carbohydrates.
2. Fruits and vegetables.
3. Protein.
4. Dairy.
5. Oils and spreads.



A balanced diet means eating lots of foods from different food groups.

