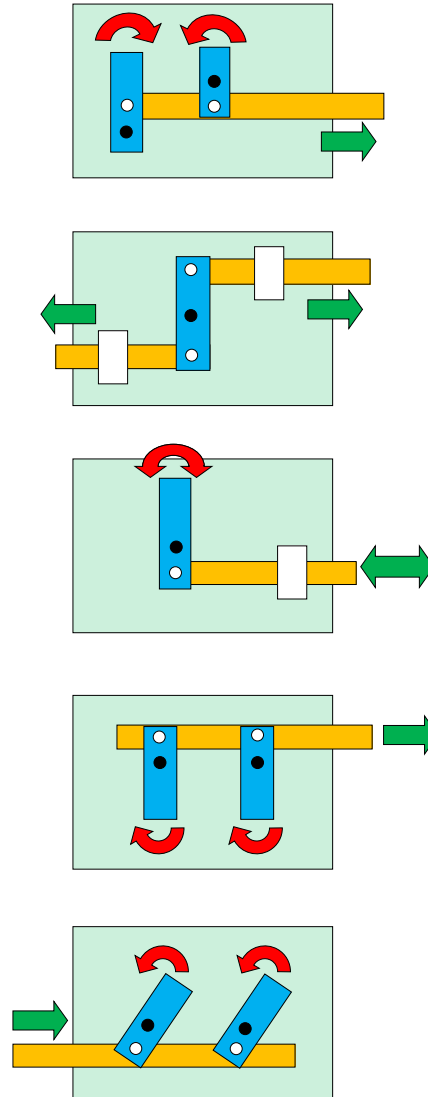


Vocabulary

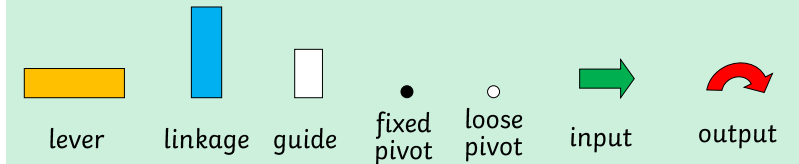
Word	Meaning
guide and bridge	A short card strip used to keep lever and linkage mechanisms in place and control movement.
lever	A rigid bar that moves around a pivot.
linear motion	Moving in a straight line, e.g. paper trimmer.
linkage	Joined to one or more levers to provide movement.
mechanism	Something that uses a collection of components which act together to create a movement.
motion	Movement from one place to another.
oscillating motion	Swinging from side to side in an arc, e.g. a pendulum in a clock.
pivot	To turn on a central point.
reciprocating motion	Moving forwards and backwards in a straight line, e.g. cutting with a saw.
rotary motion	Turning round in a circle, e.g. a wheel.
slot	The hole through which a lever is placed to enable part of a picture to move.
system	a set of related parts that work together to create an outcome.

Levers and Linkages





You can create different types of movement by combining different levers and linkages. The way you connect them will change the output movement that is created by the input.


Key:




Movement

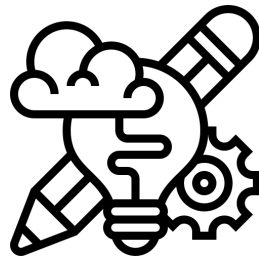
 **Linear**—in a straight line

 **Reciprocating** —back and forth in a straight line e.g. a slider.

 **Rotary**—round and round e.g. a wheel, cam, pulley or gear wheel.

 **Oscillating** —back and forth in an arc e.g. a lever or a pendulum.

The Design Process



Design Brief

A planning document that explains **what** the project is, **how** it will be achieved and the **time frame** that it needs to be made in.

Design Criteria

Tells you what a product must do to be successful.

Generating Ideas

Exploring different products and thinking about how they could be adapted. Creating an annotated sketch of your idea.

Prototype

The first example of what the real thing will look like. It is used for testing, development and evaluation.

Production

Using the annotated sketches and prototypes to help create your final product.

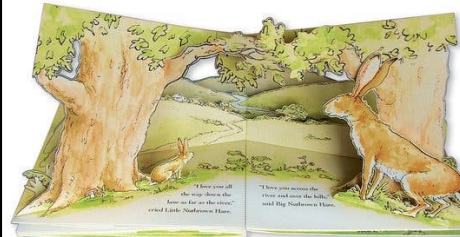
Evaluation

Checking that the product meets the design criteria and has achieved its purpose.

Design & Technology

Pop Up Books

Pop Up Examples



Pop up books can be great fun! They can include different levers and linkages to bring the different pages of the book to life.

Extending your learning

Things you could do at home to extend your learning:

1. Visit your local library or bookshop to find some examples of pop up books.
2. Make a pop up greetings card for a special celebration or festival.
3. Collect cardboard packaging that you can recycle when making your own pop up books or cards.
4. Create a pop up book or card that reminds people to look after the environment and the local wildlife.

Year 3 Summer Term