

GGA - Design & Technology Year 2 Autumn Term Mechanisms – Levers & Axles

Making - Learning using Tools and Equipment

FPT Focused Practical Task
Practise and experiment with your ideas in a small way to find out what works— e.g. **make mini levers from paper**



Cylinders

Cylinders shapes can be used to rest the crank handles on to give them space to turn around.



Doweling

Can be cut using strong card scissors to the length you need.



Pipe Cleaners & Bendy Straws

Make an axle for wheels or a crank handle to turn. They are bendy and flexible so that you can shape them more easily.



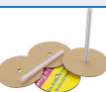
Split Pins

Make a hinge, like the bend of your elbow.



Cardboard Wheels

Put wheels onto straws and wooden dowel rod. Your wheels or crank handle will spin around.



Research, Designing & Planning

Using your DT booklet, plan and prepare using the step by step pages of guidance number below.

Planning sheet & description

This means what you need to make your idea and what your idea needs to be like.

Your design ideas page

This the page where you will draw your design idea so that you know what it needs to do

Step by step plan

This is your plan to decide what you need to do in order until you know each part of the making well. You can write your plan in words or draw it in pictures.

Evaluation

Now that you have finished, it's time to think about how well you did and how you could improve it next time.

Cross Curricular Links

Maths

You'll use your **measuring** skills to make sure all the pieces you cut out and make are the right **size** and **shape** for your design.

Art

You'll use your art skills to make a **creative** and **imaginative** design using your mechanism.

English

You'll use **literacy** skills to **describe** your experience at the end of the project in your **Evaluation**.

PSHE & Values

You'll experience a sense of **Creativity, Perseverance, Patience & Accomplishment**

History

You'll investigate how these mechanisms have changed in the **past** up until today and used at different **centuries** through history.

Key Technical Vocabulary-Glossary

Crank Handle

This is a handle that can be turned to spin around the device it is attached to.

Axle

The rod that the wheels are attached to.

Winding

A curving or turning action.

Lever

A lever is a handle or bar that is attached to a piece of machinery and which you push or pull to operate the machinery.

Why are we learning this?

To know how to:

be creative with levers, winding mechanisms and crank handles to experiment and get the most effective result

Why is it important?

So that we understand how to:

make a winding mechanism for our castles and how to make a lever mechanism for our Great Fire of London project.

