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

Making - Learning using Tools and Equipment

FPT Focussed 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.

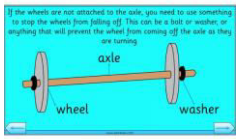
Planning sheet & description	This means what you need to make your idea and what your idea needs to be like.
Your design ideas page	This the page where you will draw your design idea so that you know what it needs to do
Step by step plan	This is your plan to decide what you need to do in order until 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.

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.



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.