**Summer Bridging Work - Preparation work for September Year 9**

**Subject: Design & Technology** **Year: 8 into 9 (All Students)**

Topic/Title **Making things move with Mechanical systems**

***Suggested background reading:***

Open the PDF **Preparation work for New Yr9** booklet that will help answer the question on the final slide.

You can also use **Focus e Learning** to help you answer the questions on the final slide.

Focus e Learning website –

Website:- **www.focuselearning.co.uk**

Username:- **student@blessededward405**

Password:- **47aqcidsk**

***Relevant films/videos to watch:***

Click on the excellent **www.technologystudent.com** website links below which will help learn about mechanical systems:

Types of mechanical motion

https://technologystudent.com/forcmom/motion1.html

Classes of Levers

https://technologystudent.com/forcmom/lever1.htm

Cam & Follower

https://technologystudent.com/cams/cam1.htm

Video about:

Cam & Follower

https://www.youtube.com/watch?v=tzWQasmUfLY

Linkages

https://www.youtube.com/watch?v=xh1jTtAxs_Q

Gears

https://www.youtube.com/watch?v=OaujUXfDVGE

crank, ratchets and quick return mechanisms

https://www.youtube.com/watch?v=7UWYEnmqU68

Pulleys

https://technologystudent.com/gears1/pulley1.htm

***Activity to undertake:***

Answer the four questions below

1. Name the four types of mechanical movements
2. What is meant by the term mechanical advantage?
3. What are three factors that determine how levers are classified?

4. Three terms are used to describe the movement of a follower on a cam & follower mechanism – Rise, Fall and Dwell, Use notes and sketches to describe what these terms mean.
5. Describe the difference between a spur gear and a worm gear – What is different about the two types of gears?
6. Pulley systems are often used in place of gears. Find out why pulleys may be used instead of gears?

Students to hand in by August 31st

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Design & Technology - **Preparing for September**

# Preparation work for September

The topic you will be studying when you return in **September** in **Year 9** is:

## Mechanical Systems

**Making things move with Mechanical systems**

The following information will help prepare you for the work ahead and get you ready to answer the recall test in September.

Design & Technology - **Preparing for September**

# Mechanisms

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In September when we return to school you will design and make your own mechanical device, that must demonstrate at least two different types of movement.

# Mechanisms

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# Mechanisms

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**Remember to photograph your work and upload it into this assignment.**