

Year 2 Autumn term – Paper project

Our Key Learning Objectives	Red	Orange	Green
I can generate and communicate ideas using sketching and modelling			
I know that a structure is something that is formed and made of parts, and I know the difference between a 'stable', 'strong' and 'stiff' structure.			
I can make a structure according to design criteria			
I can build a strong and stiff structure by folding paper			
I can create joints and structures from paper/card and tape			
I can test the strength of the structures I have built			
I can identify the weakest part of a structure			
I can evaluate the strength stiffness and stability of my own structure and know that materials can be manipulated to improve strength and structure.			

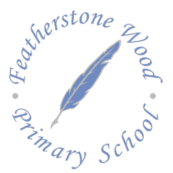
Tick the **green** box if you fully understand and can explain your knowledge to someone else. Tick the **orange** box if you understand a bit but would need some help to explain it to someone else. Tick the **red** box if you are still learning to understand.

Key Words

<p>Function An activity that is natural to or the purpose of a thing</p>	<p>Man-made Made or caused by human beings</p>	<p>Weak It breaks easily</p>	<p>Test To find out if something works as it should</p>
<p>Stable Object does not easily topple over</p>	<p>Stiff Not easily bent or changed in shape</p>	<p>Strong It doesn't break easily</p>	<p>Structure Something that has been made or put together</p>

Write down any questions you would like to explore further.

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Beacon 1

- Name a range of mechanisms
- Use key vocabulary to design and evaluate
- Prepare dishes using basic principles of healthy living and varied diet
- Explain where some food comes from

Year 2 Spring term Mechanisms project

Our Key Learning Objectives			
To explore wheel mechanisms and design a wheel			
To select appropriate materials			
To build and test a moving wheel			
To make and evaluate a structure with a rotating wheel			

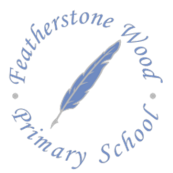
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Key Words

<p><u>Design</u> A plan or drawing produced to show the look and function</p>		<p><u>Ferris wheel</u> A fairground ride consisting of a giant vertical revolving wheel</p>	<p><u>Axle holder</u> The component through which an axle fits and rotates</p>	<p><u>Design criteria</u> Explicit goals that a project must achieve in order to be successful</p>
<p><u>Pods</u> A detachable or self-contained unit (seat)</p>		<p><u>Frame</u> A rigid structure that surrounds something</p>	<p><u>Wheel</u> A circular object that revolves on an axle</p>	

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Year 2 Summer term—Levers project

Our Key Learning Objectives	Red	Orange	Green
I can create a shared design for a moving picture			
I can talk about how the picture is designed for a specific audience based on the design criteria			
I know that a linkage mechanism is made of a series of levers			
Making linkages using card for levers and split pins for pivots, cutting and assembling components neatly			
Experimenting with linkages adjusting the widths, lengths and thicknesses of card used			
I understand that there is always an input and an output in a mechanism			
I can evaluate my own design against the design criteria			
I can use peer feedback to modify my design			

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Key Words

<p>Evaluation To determine the significance, worth, condition or usefulness of something.</p>	<p>Lever A rigid bar resting on a pivot</p>	<p>Linear motion Movement in a straight line in any one direction</p>	<p>Linkage Lengths of material that are joined together by pivots, so the links can move as part of a mechanism</p>
<p>Mechanical Something that can move because several pieces work together like a machine</p>	<p>Oscillating motion Movement in a curve, back and forth</p>	<p>Reciprocating motion Movement in a straight line, back and forth in any direction.</p>	<p>Rotary motion Movement in a circular motion</p>

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