

Year 4 Model Pulley

Design

Students will learn about how pulleys function.

Students will learn about the purpose of levers.

Students will develop a range of drawings explaining how their pulley system will function.

Students will label their ideas to show how they function.

Students will develop their ideas further based upon the feedback of others.

Make

Students will make a frame for their pulley.

Students will measure and mark up where the holes should be placed on the rotary elements of the pulley.

Students will assemble their pulley.

Students will test their pulley on an increasing weight to test its success.

Students will make improvements to their pulleys based upon the feedback they have been given.

Evaluate

Students will be evaluating the work of others.

Students will test their pulley on an increasing weight to test its success.

Students will study the data from their test to suggest how their pulley could be improved in the future.

Students will suggest ways in which they can improve their pulley in the future.

Students will produce a sketch of their improved design idea making sure it follows all the criteria.

Key Vocabulary

Pulley - A grooved wheel over which a rope can run.

Friction - The resistance trying to prevent two surfaces moving against each other.

Pulley System - Arrangement of pulleys working together.

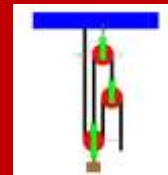
Lever - A mechanism which allows a greater force to be exerted, such as a spoon used as a lever on the lid of a tin.

Rotary - Movement in a circular direction.

Linkage - A means of connecting components together usually so they can move.

Effort - The force which is put into a mechanical system.

Mood Board



Related Mathematics

1cm = 10mm

1m = 100cm

1km = 1000m

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