Lesson: Levers

What is a lever? - A catapult is a lever. A Lever is a simple machine used to increase Force, and levers usually help people in everyday tasks. Force is something such as a push or a pull.

If you push somebody, you are "forcing" them in a direction.

Example of Force:
- Starwars - use the force!

Example of a Lever:
- Teeter totter in the play ground
- Light switch
- Shifter in a car

Pass out this weeks worksheets
- Pass out worksheet and read through it with the students and have them answer the questions.

Questions:
-Who can give an example of a other levers?

Engineering with Legos : Crazy Contraptio

BRAIN BUILDERS
EDUCATIONAL PROGRAMS
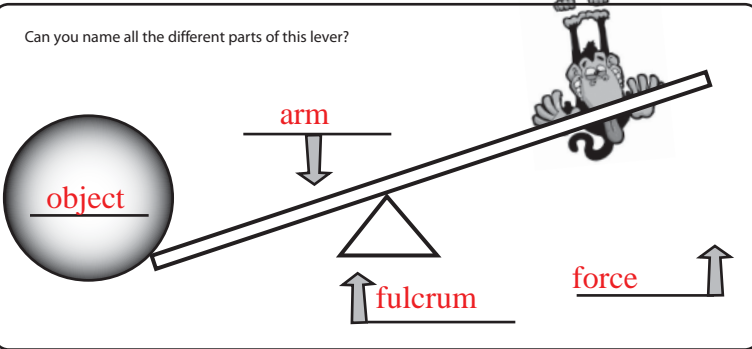*"Building Bigger Brains Since 2002"*

LEVERS IN ACTION

A lever is a simple machine used to increase force. Levers usually help assist in human tasks. Some levers you have seen or used before includes a fork or a spoon.

PARTS OF A LEVER

A basic lever includes the arm and the fulcrum, which is the point that the arm moves around. A lever is often used to help move a large object. The object is placed on one side of the lever and force is applied at the opposite side. The force can either be a push or pull.

Can you name all the different parts of this lever?

arm

object

fulcrum

force

The Challenge

Challenge 1 : Design a hand powered catapult that can launch a LEGO brick at least 10 feet.
Challenge 2 : Can you launch a LEGO brick over 15 feet?
Challenge 3 : Who can launch a LEGO brick the furthest!

Hints & Tips
-Make sure your whole project is sturdy and strong!
-Try making your project taller.
-Engineer a longer arm and see if that affe cts how far the LEGO brick g oes.
-Adjust the fulcrum point.
-Apply more force!

Challenge 1 - Individual build or team of 2
-Build a hand powered catapult that can launch a lego brick 10 feet

Challenge 2 - Individual build or team of 2
- Build a hand powered catapult that can launch a lego brick 15 feet

Ultimate Challenge- Individual build
- Who can launch a brick the furthest