Gnash's Lesson - Science





Objectives

Lesson 3 – Parent/ Child Version.

L.O:

To Build A Catapult Using My Understanding Of Potential Energy.

STARTING ACTIVITY - Catapults Setting the Scene. (10 Minutes)

Set the scene for the main activity by showing some pictures of catapults. Explain that they were often used during sieges against castles, and work in the same way as a slingshot but are larger. Tell them that - as they will see when they make their own - catapults use potential energy and ask if they know what **potential energy** is? You can explain that potential energy is 'stored' in an object and requires special material in our case an elastic band but in the case of a full-sized catapult this was done by stretching ropes. Start a discussion by asking if they have seen catapults before and where?

MAIN TEACHING - Making A Catapult. (10 Minutes)

Ask them how they will put their catapult together using the materials at hand? How can you ensure your catapult is strong?

Give a couple of minutes to develop designs on paper.

Reinforce how can you alter or improve your design to make it as strong as possible?

MAIN TASK - (30 minutes)

Give 30 minutes for the building of a catapult - encourage the use of different designs and provide gentle direction to improve the final product in the time given. (Leave up the pictures you have provided of catapults during this time for reference for your child)

PLENARY - (10 minutes)

Start by asking for an explanation of potential energy to ensure that the key scientific idea of the lesson has been conveyed.

Ask your child to show their catapults to another family member in the house or over video chat and tell them how they ensured they were strong?

Extra Information

Materials Required:

- ✓ 1 cup per student
- ✓ 1 plastic spoon per student
- √ 6 lollipop sticks per student
- √ 4 elastic bands per student
- ✓ Tape
- **✓** Strina
- ✓ Paper
- ✓ Pencil

Key Words:

Catapult
Potential Energy

Differentiation:

Set limits on the materials such as the amount of string and number of elastic bands to make creating a catapult harder.

Traffic light expected lesson outcomes:

- ✓ I can build a catapult.
- ✓ I can build a catapult and understand potential energy.
- ✓ I can build a strong catapult and understand potential energy.

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Reflection	Child's Progress

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