PHYSICS

Catapult

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The Field of Physics

Learn about physics!

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Careers in Physics

What can you do with physics?

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Activity

A fun physics activity!

01

The Field of Physics

Learn more about physics!

Fields of Physics

Classical Physics

Acoustics, Astronomy, Electronics, Mechanics, Optics, Thermodynamics

Modern Physics

Astrophysics, Biophysics, Cosmology, Nanotechnology, Quantum Mechanics,

Classes to Take in High School

Physics

AP Physics 1, AP Physics C Mechanics, AP Physics 2,

02

Careers in Physics

What can you do with physics?

Statistics

$122,850

Median yearly salary

21%

Of degree holders are women

15,000

Jobs across the United States

Careers in Physics

Aerospace Engineer

Saturn is a gas giant. It's composed mostly of hydrogen and helium

Optical Engineer

Jupiter is a gas giant and the biggest planet in the Solar System

Seismologist

Despite being red, Mars is actually a cold place full of iron oxide dust

03

The Science Behind Catapults

How do catapults work?

Physics Behind Catapults

The **catapult** you are about to make uses elastic potential energy stored in a wooden stick as you bend it. When you let go, this stored energy is released, converted into energy **of** motion and transferred to the missile (the launched object), which then flies through the air.

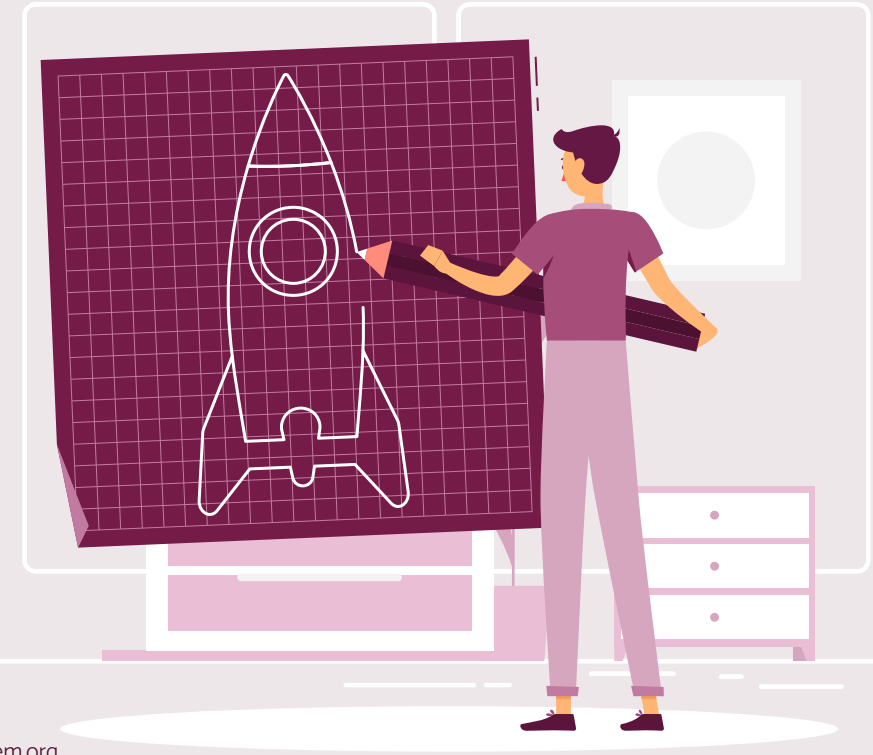
03

Catapults

A fun physics activity!

Items Needed

- Popsicle sticks
- Rubber bands (choose different colours)
- A bottle cap from a milk jar or gallon jar
- Hot glue gun
- Tiny objects like cotton balls to launch
- Straw (prefer big one)
- Wood
- Spring



Steps

1. Stack two Popsicle sticks and glue it together in order to make it standard. Make a square shaped base using these stacked popsicles. Use rubber bands to make ‘U’ shape and tie them near corners to create a square shaped base. On the fourth side, use a cylindrical shaped thin wooden stick and tie it to the corners of the ‘U’ shaped base so that it is making a square shaped base all together. Do not forget to pass a 2 inch straw piece in the middle of the wooden stick.
2. Create a ‘T’ shape at the fourth side where we have attached a piece of straw. This time you need to use glue to fix it to the Popsicle stick since it need to be strong to hold little weight.

Steps

3. Now, it's time to arrange some space for the projectiles (nothing but our tiny objects like marshmallows or cotton balls or any lightweighted plastic balls) to launch. Attach a bottle cap upside down to the free end of the 'T' shaped Popsicle (on top side). The bottle cap is used to launch tiny objects as projectiles for our activity.
4. A spring of about an inch should be attached to the Popsicle stick which is quiet opposite side of the wooden stick where the straw is inserted. Glue it to the Popsicle so that it does not move or shake during experiment. After attaching the spring make sure the spring is quiet in the middle of the Popsicle and quiet down to the bottle cap end as shown in the figure.

THANKS!

Please fill out this feedback form once you're done!
https://forms.gle/jPuovTAjFJBE8JBr7

Have any pictures? Send them to kits4stem@gmail.com