POPSICLE CATAPULT

1 EXPLORE

Potential Energy
is energy that is stored in an object.
For example by stretching a rubber band you energy is stored in it.

Kinetic Energy
Anything that moves possesses kinetic energy. When you let go of the stretched rubber band the potential energy is transformed into kinetic energy.

Elastic Potential Energy
is energy stored in something that has elasticity.

Elasticity
is the ability of a material or an object to resume its normal shape after being compressed or stretched.
A rubber band has a great elasticity!

Tension
is the pulling force or stretching of an object.

2 IMAGINE

Find different items in your house : What do you think how far you can launch the different items?

ITEM	ESTIMATED DISTANCE	ACTUAL DISTANCE

3 CREATE

You need:

- 5 Rubberbands
- 1 Bottle cap
- 15 Craft Sticks (Tongue Depressors)
- Glue gun or Glue
- Pop Poms, pennies, Buttons, or anything small that could be launched by the Catapult.

Experiment with different degrees of TENSION. Find out how far you can launch each item.
Practice aiming for a target or landing into a cup.

4 REFLECT

Does the weight of the item being launched affect the distance?

Does the size of the item being launched make a difference?

Does the amount of tension you use to press the catapult effect the distance?

→ Can you think of another design for a catapult using rubberbands and sticks?