



CREATIVE

CHALLENGE

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CATAPULT CONTRAPTION



Build a rubber band powered catapult to launch a ping pong ball across the room. Experiment with different designs to see if you can topple the target. Can you balance power and accuracy to set the record?

Potential vs. Kinetic Energy

What is potential energy?

Can you name the different types of potential energy?

What is kinetic energy?

What is a catapult?

How was a catapult used?

What other objects use kinetic energy?



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Potential vs. Kinetic Energy - ANSWERS

What is potential energy?

Potential energy is energy that is waiting to be released like in the spring of a mousetrap that has been set.

What is another example of potential energy?

Stretching and holding a rubber band is one example.

What is kinetic energy?

Kinetic energy is the energy of motion. Anything moving has kinetic energy.

What is a catapult?

A catapult is a device for launching objects great distances using the elastic potential energy in a spring.

How was a catapult used?

Catapults were used in medieval warfare to lay siege to castles and towns.

What other objects use kinetic energy?

Everything that moves exhibits kinetic energy.



CREATIVE CHALLENGE CATAPULT CONTRAPTION

HAPPEN'S CATAPULT CONTRAPTION

SUPPLIES:

- Large wooden popsicle sticks
- Rubber bands
- Plastic Water Bottle Caps
- Crayons or Colored Pencils
- Glue

INSTRUCTIONS:

1. Make a stack of six or seven popsicle sticks and secure both ends with rubber bands.
2. Using two more popsicle sticks, position one above and one below your stack, turned perpendicular to the stack.
3. Move the new pair of popsicle sticks to so there is one long side and one short side.
4. Use another rubberband to wrap around the short side of the two new popsicle sticks so that one is flat and one is at a sharp angle. (see the image below)
5. You may find that you need a second rubberband wrapped around the two popsicle sticks on the opposite side of the stack from the other rubberband.
6. Glue the bottle cap on to the high end of the angled stick.
7. Ball up some tape or use cotton balls to launch from the bottle cap. Just press down on on the cap end and let fly!



