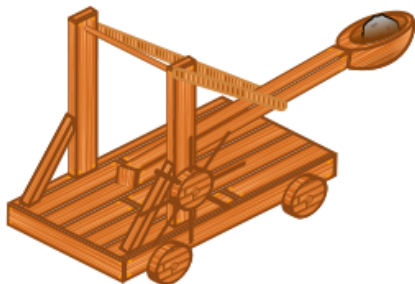


MARSHMALLOW CATAPULT

Observe how stored tension can turn into force.

Materials

- 8 Popsicle sticks
- 3 Rubber bands
- Plastic spoon
- Marshmallows



Procedure

- Stack 6 popsicle sticks together. Wrap rubber bands tightly around both ends of the stack to secure them.
- Stack 2 more popsicle sticks and secure them with a rubber band on only one end.
- Push the larger stack of popsicle sticks between the other 2 popsicle sticks so that they are perpendicular. Wrap a rubber band around where they meet to secure them together.
- Put a plastic spoon on one of the 2 single popsicle sticks. Slide it through the rubber band in the middle to keep it in place.
- Place a marshmallow in the spoon. Gently push the spoon down and then quickly release it.

Results

The marshmallow was catapulted by the spoon when you released it.

Why?

When you bend the spoon on the popsicle stick back, the wood stores potential energy as it bends. When you release it, the stored tension makes the popsicle stick snap back, throwing the marshmallow with quick, intense force. Try experimenting with your catapult design by making the arm longer or using different materials to see if the marshmallow flies farther.