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Paper Tube Launcher


Stem Activities




Ages: 6-8



Less than 30 minutes



Grownup needed



We love launchers because they're a brilliant way to play with physics! In this project, children can transform a balloon into a stretchy net to launch small balls and knock down targets. While they build their launcher, you can discuss energy transformation with them, such as potential and kinetic energy!

Materials Needed

Paper tube
Balloon
Tape
Paint
Paintbrush
Palette
Small balls
Targets
Scissors



Step-by-step tutorial

Step 1

Paint the paper tube and wait for it to dry.



Step 2

Use scissors to cut off the inflation end of the balloon.



Step 3

Stretch the cut balloon over one end of the paper tube.



Step 4

Secure the balloon to the tube with tape, and your launcher is complete.



Step 5

Place a pom-pom 'ammunition' into the tube.



Step 6

Pull back the balloon and release to launch the ball. Set up some targets for your launcher and enjoy the shooting fun!



The Science Behind It:

The launcher uses a balloon as its power source. When you stretch the balloon but haven't yet released it, potential energy builds up. When the balloon is released, the stored elastic potential energy quickly converts to kinetic energy, propelling the object (like the small ball) forward. This experiment perfectly demonstrates energy transformation and transfer.