



ACTIVITY PLAN



Grades: 3, 4, 5

Subject: Environmental Engineering

Topic: Energy/Windmills

Lesson: Pinwheel Design

Objectives:

- Identify which design worked best
- Explain why the design worked best
- Describe how windmills collect energy

Materials:

- 4 pieces of construction paper (about 8"x11" and two colors)
- Stickers or tape
- 3 flat-ended pins or thumbtacks
- 3 pencils with erasers
- Scissors
- Ruler
- Glue

Instructions:

1. Watch and follow along with this video to construct three pinwheels:
<https://www.youtube.com/watch?v=Q7FXhuBYmxM&t=5s>
2. On a windy day or by blowing toward the front of the pinwheels, test the designs to see which spins the fastest/outputs the most energy



Notes:

Be available to help students during the video and pause it frequently for them to catch up