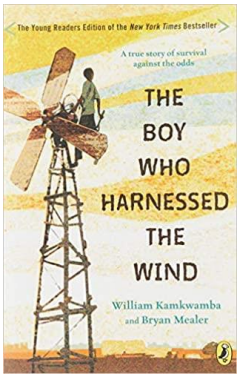
ENERGY: WIND POWER (3-5)

The SCIENCE of WIND:

Wind Energy comes from moving air. It can be used to power an electric generator that supplies an electric current.
Windmills convert the energy of the wind (and water) to do a job, such as grinding, pumping or generating electricity.
Wind turbines use newer technology and can generate much larger amounts of electricity.

LITERACY CONNECTION:

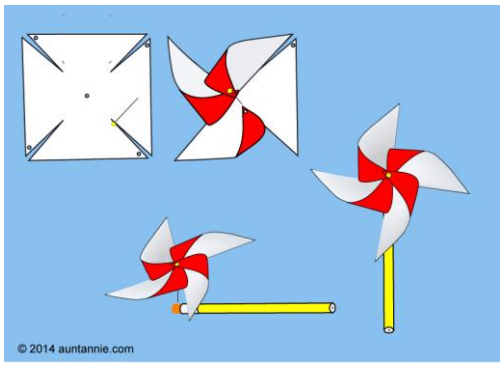


The Boy Who Harnessed the Wind is a true story by William Kamkwamba and Bryan Mealer. As a young teenager, William finds an inventive way to bring electricity to his tiny African village. His story is so amazing they made a movie about it!

ACTIVITY: PINWHEEL POWER

Materials: square piece of paper, scissors, tape or glue, straw (or pencil with an eraser), pushpin or needle, fan (optional)

1. Cut the four corners of the square piece of paper a little more than halfway towards the center of the square.
   TIP: Print out or trace the template below.



2. Bend one half of each corner to the middle and tape or glue it in place. Do this for all 4 corners.
3. Carefully push the pin through the center of the pinwheel and into the straw OR the rubber eraser part of a pencil.

TIP: Put tape over the end of the pin if it is sticking out so you don't get poked.

4. Blow directly at the pinwheel to watch it spin! If it doesn't spin, your pin is too tight and try moving it back. Now take it outside, put it in front of a fan or a blow dryer and use the chart below to record the results.

Which direction does the pinwheel spin? When wind is blown straight into the face of the pinwheel, it spins. The blades capture the oncoming air and are pushed in that direction. Most pinwheels have the blades arranged to spin counterclockwise.
EXPLORE: For more fun activities, visit the Reading is Fundamental page inspired by the story you read or Florida Power & Light's pinwheel activities.

For step-by-step instructions, watch the video at: Pinwheel STEM Activity

This at-home educational activity is from the Literacy Coalition of Palm Beach County's literacy-based Stories & STEM program.
Stories & STEM is made possible with support from Prime Time Palm Beach County, Inc., which receives significant funding from the Children's Services Council of Palm Beach County, Inc.

Having fun? Send pictures or video links of you and your Stores & STEM projects to csharkey@literacypbc.org

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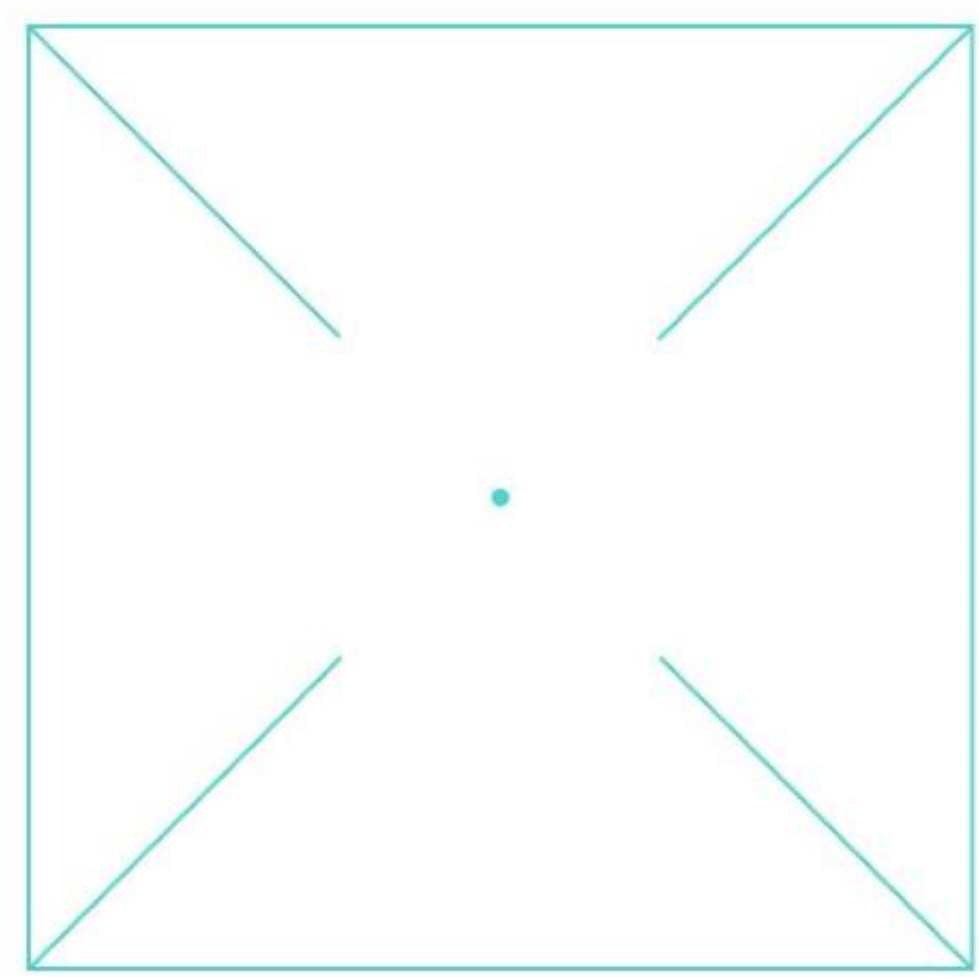

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Let's Make a Pinwheel!

Name:_____

Use the chart below to write your observations .

	3 feet	2 Feet	1 Foot
Slow Speed			
Medium Speed			
Fast Speed			

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