**PINWHEEL TEMPLATE**

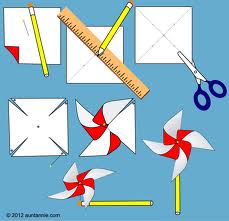
How to make a Pinwheel (Windmill)

**Read pages 13 and 14 from your Mini-Textbook as a group. Discuss the following questions:**

1. What are some advantages of using the wind as a source of power?
2. What might be a disadvantage of using wind as a source of power?
3. How were the first windmills different from the later ones (in Europe?)
4. What types of things are windmills used for?

**You will need the following materials:**

* A pencil WITH AN ERASER
* Scissors
* Each kid needs one copy of the “Pinwheel Template”
* Each kid needs one copy of the “Evaluate your Pinwheel” sheet
* One pin per kid
* Mini-textbooks

1. Each kid gets one piece of paper that has the square on it. Start by cutting out the big square.
2. Next, cut along each dotted line from the corners towards the middle, STOPPING when the line ends.
3. Grab each corner that has a circle on it and bring that dot to the middle dot DO NOT FOLD your paper, just let it curve.
4. [](http://www.google.ca/url?sa=i&source=images&cd=&cad=rja&docid=cKThYT9rakDF7M&tbnid=Wk1fIbc7LD2faM:&ved=0CAgQjRw&url=http%3A%2F%2Fwww.auntannie.com%2FFridayFun%2FPinwheel%2F&ei=kIDQUo3wGsruoATuwoDwBA&psig=AFQjCNEG_0nsiZqGOyvPZpMSeWXHnaLpNw&ust=1389482512504454)Once all 4 “dots” are at the middle dot you can get one of the pins and poke it through all 4 tips, then flip the pinwheel over to make sure that your pin gets poked through the MIDDLE of the back side of the pinwheel as well.
5. Poke the pin into the eraser of your pencil.
6. Blow on the windmill to make it move.

* Each student should fill out the first column in the “Evaluate your Pinwheel” Sheet.
* How can you improve your windmill to make it turn more easily? (HINT look at other materials that I have provided for you.)
* Finish the rest of the worksheet. For question #2, use pages 10 and 11 from your textbook to help you answer the questions. When your worksheet is COMPLETELY finished, you may take apart your pinwheel and color it/ make designs on it.
* You may keep your pinwheel parts as long as they go in your backpacks right after science so you don’t play with them in class.