Title of Lesson: Building a Windmill

Theme: Earth/Space Science

Unit Number: 1   Unit Title: Weather and the Seasons

Performance Standard(s) Covered (enter code):
- S1CS3
- S1CS4
- S1CS7
- S1E1

Enduring Standards (objectives of activity):
- Habits of Mind
  - ☑ Asks questions
  - ☑ Uses numbers to quantify
  - ☑ Works in a group
  - ☑ Uses tools to measure and view
  - ☑ Looks at how parts of things are needed
  - ☑ Describes and compares using physical attributes
  - ☑ Observes using senses
  - ☑ Draws and describes observations

Content (key terms and topics covered):
Wind

Learning Activity (Description in Steps)
Abstract (limit 100 characters): Give students a visual demonstration of wind and let them participate in a hands-on activity.

Details: Preparation for this lesson should be done before going to the class. One end of a rectangular sheet of construction paper should be cut off to make a square piece of paper. Follow the instructions on the attached sheet. Before going to class, you should have the papers cut and the holes poked. All the kids should have to do is fold the papers and stick the pin through the holes into the stick.

Materials Needed (Type and Quantity):
- Small, round wooden sticks approximately 1 ft long (1 per student)
- Sheets of construction paper cut into large squares (1 per student)
- Pushpins/paper fasteners (1 per student)

Notes and Tips (suggested changes, alternative methods, cautions):
You should be sure to only let the kids poke the pins into the sticks one at a time so that you can make sure they don’t stick themselves with the pins. To be safe, you could put the pins through the
holes for them and then let them push the pin into the stick. This would reduce the risk of a kid sticking himself/herself.

Sources/References:
1) 
2) 
3) 1. Cut the paper/card into a square, (suggested size 21cm, (8”) square) 

2. Fold the square corner to corner in half diagonally, then open out 

3. Repeat with the other diagonal corners, and open out again. 

4. Colour in or decorate both sides of the paper/card at this stage if wished. 

5. Cut just over halfway along each folded line, towards the centre, (do not cut all the way to the centre, or the windmill will fall apart). 

6. Starting at the lower right-hand corner, bring the corners to the center of the paper. 
   To make the next bit easier, mark the four corners and the centre, and make a hole at each of these points, (not too close to the edge), to fit the paper-fastener through when assembling. (Remember the hole has to be large enough for the paper-fastener to turn all the way round in it.) These are the corners that should be placed over the centre point, over-lapping each other, and fastened in place with the paper fastener. 

7. That’s the hard bit done! Check the windmill can turn round the paper-fastener, the holes may need to be made a little larger, and then wrap the ends of the paper-fastener round the doweling and secure in place with glue or tape. 

8. Ribbons can be attached to the centre back of the windmill to flow down over the doweling as decoration, if wished.