The Power of Wind

Science – Grade 1-3

Students go outside to make observations about the wind using their senses, visual indicators, and the Beaufort Wind Scale.

Materials:

-   Beaufort Wind Scale (attached)
-   Chart to record observations

Instructions:

Take students outside to observe the wind at regular time intervals for several days. Students should make a chart and record their wind observations. Include the date and time of day.

Have students answer the following questions as part of their observations:

1. Although you can't see the wind, what can you observe (indicators) that tell you how windy it is?

    a. Have students pick a few blades of grass (or a leaf) and drop them from a few feet up. This will allow them to see how strong the wind is blowing.

2. What do your other senses tell you about the wind?

3. Use the Beaufort Wind Scale (see following page) to estimate the wind speed.

4. Is today a good day to fly a kite? How do you know?

(Adapted from: 4-H, *The Power of Wind*)

Beaufort Wind Scale **–** Developed in 1805 by Sir Francis Beaufort

Force	Wind Speed (miles per hour)	WMO Classification	Appearance of Wind Effects on Land
0	Less than 1	Calm	Calm, smoke rises straight up
1	1-3	Light air	Smoke moves in direction of wind, wind vanes don't move
2	4-7	Light breeze	Leaves rustle, wind can be felt on face, wind vanes begin to move, flags stir
3	8-12	Gentle breeze	Leaves and small twigs constantly move, light flags blow out
4	13-18	Moderate breeze	Dust, leaves, and loose paper lifted off ground, small tree brances move, flags flap
5	19-24	Fresh breeze	Small trees in leaf begin to sway, flags ripple
6	25-31	Strong breeze	Larger tree branches move, umbrellas are hard to use, flags beat
7	32-38	Near gale	Whole trees moving, hard to walk against wind, flags extended
8	39-46	Gale	Twigs break off trees, walking is very difficult
9	47-54	Strong gale	Slight structural damage occurs, shingles blow off roofs
10	55-63	Whole gale	Whole trees are uprooted, sever damage to buildings
11	64-73	Violent storm	Widespread damage
12	74+	Hurricane	Violent destruction

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