Name that Wind

Overview:

During this project, students will run in the correct direction of the wind named by the teacher.

Objectives:

The student will learn wind is named for the direction from which it comes.

Levels III-IV Grades 5-8

GLEs Addressed:

Science

- [5-8] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- [7] SD3.1 The student demonstrates an understanding of cycles influenced by energy from the sun and by Earth's position and motion in our solar system by describing the weather using accepted meteorological terms (e.g., pressure systems, fronts, precipitation).

Whole Picture:

The term *wind* is used to describe the movement of air. Wind is the air reacting to differences in pressure, with air moving from higher pressure toward lower pressure. Wind can also be modified by mountains and can be turned by the spinning of the earth. Wind direction is monitored by meteorologists, pilots, scientists and myriad others who need to study Earth's weather activity. Wind is directly associated with weather, climate and geologic changes like erosion.

Winds are named from their source direction. A West wind is *coming from* the West, not going toward it. Direction is expressed in interim degrees, as well, using the 16 points on a compass rose. (See illustration.) For example, a wind from a direction between North and East would be termed northeast. A wind closer to North than East would be further distinguished as north by northeast.

A determination of true North must be made in order to correctly determine wind direction. This can be done with a compass or by using alternative methods. In forested areas, trees may support the growth of moss on the North face of their trunk. If no trees are present, the following method may be useful:

The Watch Method for use in the Northern Hemisphere

Place an analog watch – set to the current time – on a level surface. Point the hour hand at the sun, then carefully move it so the sun is halfway between the current hour and the number 12. At this point the number six will point North.

Materials:

- Compass
- Hazard cones (9)

Preparation:

Use a compass. Go to the gymnasium or outside and set up eight hazard cones in a large octagon. Label the cones north, northeast, east, southeast, south, etc. Place one cone in the center of the octagon and label it "wind origin."

Activity Procedure:

- Explain wind is named for where it comes from, not where it is going. That means that a "northerly wind" is actually blowing to the south <u>from</u> the north. Tell students they will do an activity that illustrates this concept. In this activity they will be the wind.
- 2. Ask students to help set up the cones. Ask students to stand at the "wind origin" cone. Tell them you will call out the names of various winds. When you call out a wind name, students should become that wind, and run to the cone to which such a wind would travel. For example, if you call out, "northerly wind," students should run to the cone marked "south" because a northerly wind travels from north to south. Students should then return to the "wind origin" cone and wait for you to call another wind name.

Teacher's Note: If space is limited, do this in the classroom by putting direction labels on the walls. Students can stand next to their desks and turn to face the direction the wind would travel when a wind name is called.

Extension Activity: Have a competition: the first student to reach the right cone each time earns a point.

3. Repeat until all students are running to the correct cone when a wind name is called out.

Northerly: Students run to the south cone **Easterly:** Students run to the west cone **Southerly:** Students run to the north cone **Westerly:** Students run to the east cone

Northeasterly: Students run to the southwest cone **Southeasterly:** Students run to the northwest cone **Southwesterly:** Students run to the northeast cone **Northwesterly:** Students run to the southeast cone

Answers to Student Worksheet:

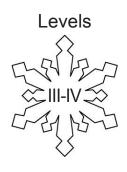
- 1. southwest
- 2. a. northeast
 - b. west
 - c. southwest

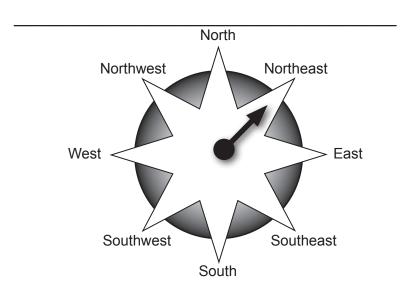
Name:_____

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Student Worksheet

1. What is the name of the wind in the diagram below?





2. Write the name of each wind indicated by an arrow on the map.

A.____

В.

C.____

