

GRADE LEVEL EXPECTATION: 2
STUDENTS IN MOTION
CONTENT AREA: SCIENCE

LESSON TIME:
1 class period

MATERIALS:
1. Pedometer
2. Stop watch

OBJECTIVE: To understand the effects of changes in motion and speed. This lesson works best on a windy day when students can walk and run outside after these concepts have been discussed.

STANDARD:
1: Physical Science
1. Changes in speed or direction of motion are caused by forces such as pushes and pulls

ACTIVITY:
Explain the speed of the push, pull, or outside force in the following situations:

- What if a second grader was walking down the street on a sidewalk?
- What if a second grader had to travel up a steep hill?
- What if a second grader had to travel up a steep hill with the wind against the student's face?
- What if a second grader had to travel down a moderate hill with the wind blowing at the student's back?

ACTIVITY:
Use a speedometer/pedometer to measure steps and a stop watch to track the time while traveling against the wind and then the same distance with the wind. (Other variations: uphill, downhill, deep snow, sand, or anything with and without resistance.)

EVALUATION:
At the end of this lesson, students should understand the effect of wind or grade on their walking or bicycling speed. Follow-up questions include "Do you go faster or slower when walking or bicycling downhill? What does it feel like to walk uphill, with wind blowing in your face?"