



Broward County Public Schools Videoconference

Reading Rascals

Lesson: Measuring Motion

Instructor: Dr. Evelyn Nelson-Weaver
BECON Distance Learning Teacher

Grade Level: First Grade

Sunshine State Standard: SC.C.1.1, SC.C.1.2, and SC.H.1.1

Benchmark: SC.C.1.1.1, SC.C.1.1.2, SC.C.1.2.1, and SC.H.1.1.5

Objective(s):

1. Students will demonstrate two ways to move an object.
2. Students will recognize that there is a relationship between force and motion.
3. Students will use tools and instruments to obtain information about motion.

SCIENCE SKILL EMPHASIS: Measure.

VOCABULARY:

- force – A push or pull that makes something move.
- push or pull – Forces that move an object
- friction – A force that slows down or stops the movement of two things that are rubbing against each other.
- gravity – The force that pulls things toward the center of the Earth.
- speed – A way to measure motion.

MEDIA CONNECTION: Newton's First Law of Motion from *Let's Move It: Newton's Laws of Motion*. Rainbow Educational Media (1987). Retrieved February 12, 2008, from unitedstreaming: <http://streaming.discoveryeducation.com/>

- Preview vocabulary BEFORE watching video segment
- Questions for students: (Show vocabulary words as students answer questions)
 - What does it take to get something moving? *A force*
 - What changes the direction or stops a moving object? *A force*
 - What are two examples of a force? *Push or Pull*
 - What is caused when two objects are rubbed together? *Friction*
 - What pulls everything toward the center of the earth? *Gravity*

LITERATURE CONNECTION:

Book Title: The Science Book of Motion

Author: Neil Ardley **Art Editor:** Christopher Howson

Publisher: Dorling Kindersley Limited, London (1992).

Summary: Experiments and information about motion presented in easy-to-read text and colorful pictures.

ACTIVITIES: *Let's do a few experiments to prove what we have learned.*

- *Objects need a force to start them moving and a force to make them slow down and stop.*
 - *Lift Off! The Science Book of Motion Page 8*

- Friction is a force that slows down or stops something.
 - *On the Slide* The Science Book of Motion Page 21
- **Speed is the measure of motion.**
 - Place the following pictures in order with the slowest listed first and the fastest listed last.
 - ANSWERS:
 - Garden snail: 0.03 mph
 - Human being: 27.89 mph
 - White-tailed deer: 32 mph
 - Cheetah: 70 mph
 - Fastest automobile: 205 mph
 - Fastest train: 252 mph
 - Fastest jet: 2,193.167 mph

MATERIALS NEEDED: None

EXTENSION:

Related Website:

Measuring Motion from FactMonster.com

<http://www.factmonster.com/ipka/A0769593.html>