Project FOCUS
Best Lessons
SECOND GRADE

Title of Lesson: Measuring The Different Effects of Motion Energy
Theme:Physical Science
Unit Number: 5 **Unit Title:Energy/Pushes and Pulls**
Performance Standard(s) Covered (enter code):
S2P2
S2P3
S2CS2
S2CS5
S2CS6
S2CS7
S2CS3

Enduring Standards (objectives of activity):

Habits of Mind

X☐ X **Asks questions**

X☐X **Uses numbers to quantify**

☐ **Works in a group**

X☐X **Uses tools to measure and view**

☐ **Looks at how parts of things are needed**

☐ **Describes and compares using physical attributes**

☐ **Observes using senses**

X☐X **Draws and describes observations**

Content (key terms and topics covered):
Energy, Motion, Friction, Measurements

Learning Activity (description in steps)
Abstract (limit 100 characters): This activity allows students to compare the difference in effects of friction on two different surfaces while introducing the concept of potential and kinetic energy into their process of evaluating motion.
Details: Students will start off by watching a brief video that introduces potential and kinetic energy (Kinetic energy is NECESSARY for motion to take place). After the students have watched the video and now have an understanding of the concepts and their differences, the students will then be asked to make predictions about what they believe will happen after rolling a ball down a ramp on both the floor (carpeted) and across a long table (smooth). In order for the students to properly make these predictions, they will have to recall the effects of friction on an object. There must be meter sticks or rulers laid across the floor and table in order for the students to accurately measure the distance the ball traveled in each instance. Each student will be given an opportunity to roll the ball down the ramp on both of the different surfaces. ***CHALLENGE:: Ask students to record the distance the ball traveled as a fraction; with the numerator representing the distance traveled and the denominator representing the entire distance (number of meter sticks x 30in)

Materials Needed (type and quantity):

Ramp (constructed out of old cardboard cutouts)
Small ball
Meter Sticks / Rulers
More than one tabletop (should be at school)

Notes and Tips (general changes, alternative methods, cautions):

Make sure students don't get too excited and THROW ball down the ramp! Advise them to simply slide the ball down the ramp

Sources/References:

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2)Click here to enter text.
3)Click here to enter text.