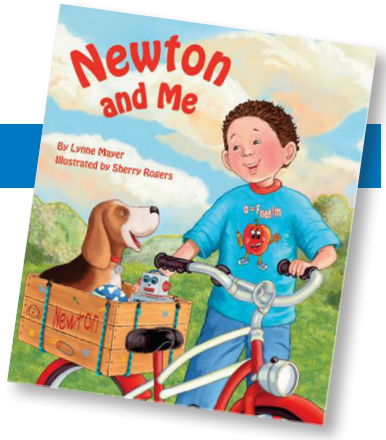
Newton and Me



RIF EXTENSION ACTIVITIES FOR EDUCATORS

STEAM-THEMED: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH

SCIENCE, MATH
SCIENTIFIC SORTING

Materials: hula hoops, various objects or pictures of objects

Using two hula hoops, make a Venn diagram on the floor. Give students a variety of different objects or pictures of objects and let them discuss how they would make the objects move. Would they push them? Pull them? Both? Have them sort the objects in the diagram accordingly.

TECHNOLOGY, SCIENCE
DEMOS OF NEWTON'S LAWS

Visit **www.neok12.com/Laws-of-Motion.htm** for some great demonstrations of Newton's laws. Pick the videos that best suit your student age group.

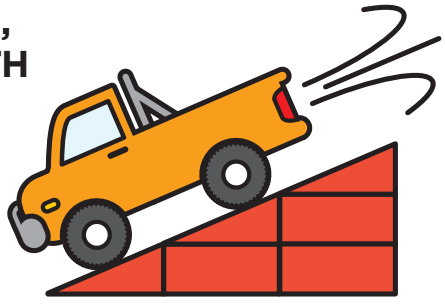
ENGINEERING, SCIENCE
INVISIBLE INVESTIGATIONS

Materials: 10"x10" piece of corrugated cardboard, ball, 3' piece of string

Setup: Attach the string to one end of the cardboard and pull it out straight. Place the ball in the middle of the cardboard.

Challenge: Move the ball to the end of the string, no farther, without touching the ball. Let students work together in small groups to complete this challenge. Which group has the best solution?

ENGINEERING, SCIENCE, MATH
RAMP IT UP!



Materials: blocks, flat board, toy truck, tennis ball, baseball, whiffle ball, yarn, scissors

Have students build a ramp using the blocks and board. Release the toy truck from the top of the ramp. Use the string to measure distance traveled. Let students feel the weights of the different balls. Put the baseball in the truck bed. Release the truck from the top of the ramp and measure the distance traveled with yarn. Repeat the procedure with the other 2 balls. Have students sort the yarn lengths under pictures of each ball and an empty truck. Graph the results. Discuss when the truck traveled farthest and why.

ART, SCIENCE
POETRY IN MOTION

As a class, brainstorm different motion words (e.g., push, pull, tug, etc.) and write them on the board. For younger students, write a class poem using as many of the words as possible. For older students, have them write and illustrate their own poems.

ART, SCIENCE
A MIGHTY WIND

Materials: paper, straws, watercolors

Let students make watercolor paintings. Then have the students use straws to blow or "force" air onto their papers. What happens to the paint? What does blowing harder do to the paint? Blowing more softly?

MATH
APPLE EQUATIONS

Materials: apples, index cards marked with mathematical symbols (+, -, =)

The boy in the story has an *equation* on his shirt. An equation is a sentence where both sides of the equals sign (=) have the same value. Use apples and index cards to model different equations. After the lesson, enjoy a tasty apple slice snack.

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