MAKING SCIENCE FUN!

NEWTON'S ANTICS SCIENCE KIT

NGSS CONNECTIONS

OVERVIEW:

As you know, the Next Generation Science Standards (NGSS) set expectations for what science concepts students should understand. These *NEWTON'S ANTICS SCIENCE KIT* activities start young scientists on the way to meeting those standards. Take a look and see what can be accomplished!

JUST FOR TEACHERS

Young scientists (**grades K-2**) who demonstrate understanding can:

- Plan and conduct an investigation to compare the effects of different strengths or different directions of pushes and pulls on the motion of an object. **(NGSS K-PS2-1.)**
- Analyze data to determine if a design solution works as intended to change the speed or direction of an object with a push or a pull. **(NGSS K-PS2-2.)**
- Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem. **(NGSS K-2-ETS1-2.)**
- Analyze data from tests of two objects designed to solve the same problem to compare the strengths and weaknesses of how each performs. **(NGSS K-2-ETS1-3.)**

Young scientists (**grades 3-5**) who demonstrate understanding can:

- Plan and conduct an investigation to provide evidence of the effects of balanced and unbalanced forces on the motion of an object. **(NGSS 3-PS2-1.)**
- Make observations and/or measurements of an object's motion to provide evidence that a pattern can be used to predict future motion. **(NGSS 3-PS2-2.)**
- Use evidence to construct an explanation relating the speed of an object to the energy of that object. **(NGSS 4-PS3-1.)**
- Ask questions and predict outcomes about the changes in energy that occur when objects collide. **(NGSS 4-PS3-3.)**
- • Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem. **(NGSS 3-5-ETS1-2.)**