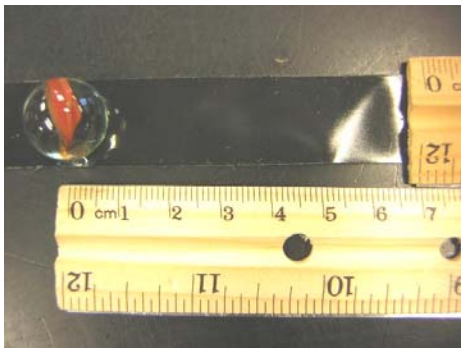
Which Tape Is Stickiest?

Use this fun activity to teach about constants and variables. It also gives students experience creating a line and bar graph.

Materials per group of students:

- Wooden ruler with channel down the middle (for the marble to roll down)
- Another ruler (to measure marble distance with)
- At least 2 different kinds of tape
- Marble
- Scissors



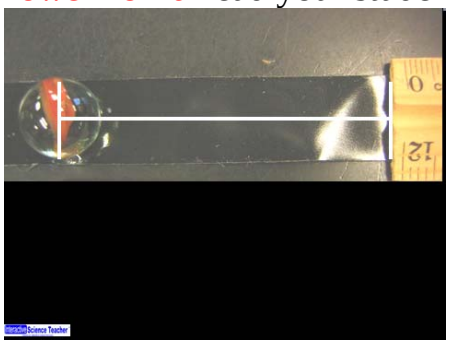
Procedure:

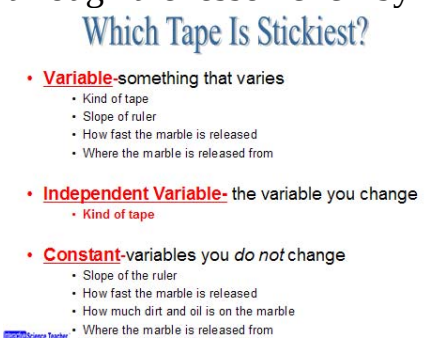
1. If you're using the PowerPoint (see the last page), start it now. It introduces students how to do the activity, guides them through the kinds of variables with notes, and shows how to keep track of the data and turn it into a graph.
2. Cut strips of tape into 18 inch long pieces.
3. Attach tape to the underside of ruler so the tape is sticky side up.
4. Prop up the other end of the ruler with a textbook. You now have a ramp.
5. Roll the marble down the middle channel of the ruler. It will come to a stop on the sticky part of the tape.
6. If the marble keeps rolling off the tape, cut another strip of tape and lay the two side by side (so they're double-wide).
7. Record how far the marble goes on the sticky tape on the student handout (see the last page) or on their own paper. Make sure everyone is clear where you begin measuring from (the end of the ruler) and where you are measuring to (the middle of the marble).
8. Yes, there are some variables to pay attention to- where the marble is released from, how much the marble is handled (that puts oil on it).
9. Ask how many times they should roll the marble- just once? (NO!)
10. Allow students to work with just one kind of tape at once. Initially give them the first kind of tape they need. When done, they come get the next kind.
11. Discuss with them how many times would be good to roll the marble (hint- not once).
12. Stress that the only thing that should change throughout the experiment is the kind of tape, *and nothing else*. In a good science experiment you only change 1 variable.

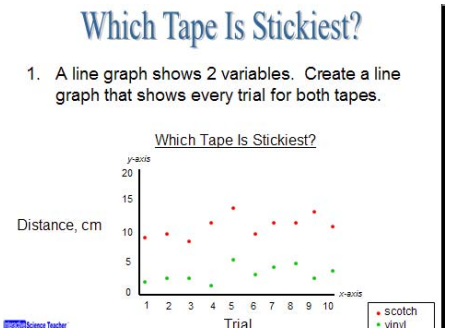
13. After 15-20 minutes students should be done with their testing. They can now turn their data into a line graph and a bar graph. Use colored pencils for a nice touch.

Come back and visit InteractiveScienceTeacher.com to upgrade this lesson with:

PowerPoint- lead your students through the lesson click-by-click







Student Handout