holiday STEM ACTIVITY | SNOWSTORM IN A JAR

What you need:

Mason jar	Water
Baby oil	Glitter
White paint	Alka Seltzer

What you do:

Add 1 cup of water to your jar and mix in enough white paint to make the solution thick. Pour 1/4 cup of baby oil on top of the white water. Next add plenty of glitter! Now to start your snowstorm, drop in one Alka Seltzer tab, and watch the magic begin.
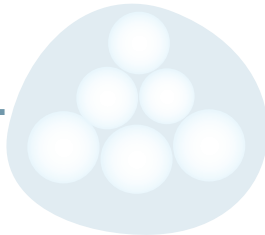
What you'll learn about:

forces of attraction, solubility/immiscibility, density, chemical reactions, polarity

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holiday STEM ACTIVITY | CANDY CHRISTMAS TREE

What you need:

gumdrops
toothpicks
Styrofoam plate
ruler or tape measure

What you do:

Use the Styrofoam plate as your base. Building up from here, make the tallest free standing Christmas tree you can using only toothpicks and gumdrops.

What you'll learn about:

physics, geometry, load distribution, building structures

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holiday STEM ACTIVITY | SNOWBALL CATAPULT

What you need:

10 large Popsicle sticks	white pom poms
3 rubber bands	water bottle cap

What you do:

Stack 8 Popsicle sticks and wrap tightly at each end with rubber bands. On your remaining two Popsicle sticks, make two small notches, one on each side, about 1/2 inch from one end. Slide one of these sticks through the stack so it rests on the bottom stick in the stack. Take your last stick and rest it on top of the stack, making sure the notches match up to the stick you inserted into the stack. Wrap a rubber band (not too tightly) around the notches of these two sticks, forming a V. On the opposite end of the notches, glue a bottle cap to the top stick. Insert your pop pom into the cap, pull back the lever, and watch that snowball fly!

What you'll learn about:

force, lever arms, potential & stored energy, simple machines

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holiday STEM ACTIVITY | WRAPPING PAPER MARBLE RUN

What you need:

leftover wrapping paper	tape
1 wrapping paper tube	jingle bell
scissors	

What you do:

Cut the cardboard tube open by cutting along the entire length of the tube. Cut the tube into 3-4 sections. Use the leftover wrapping paper to decorate your tube sections. Use tape to position your tube pieces along the wall to create a marble run. Use the jingle bell as your marble!

What you'll learn about:

speed, velocity, angles

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