



# THANK YOU!!

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**I depend on site visits to be able to provide you free resources. If you would like to share these activities with friends, please invite them to download it from the webpage. Every visit counts.**

**I hope you'll take some time to look around for more motivating activities. During your visit, be sure to sign up for our free email list so that you're always the first to know about our printables, science activities, literacy centers and more.**

**Appreciatively,**

*Malia* [PLAYDOUGHTOPLATO@GMAIL.COM](mailto:PLAYDOUGHTOPLATO@GMAIL.COM)

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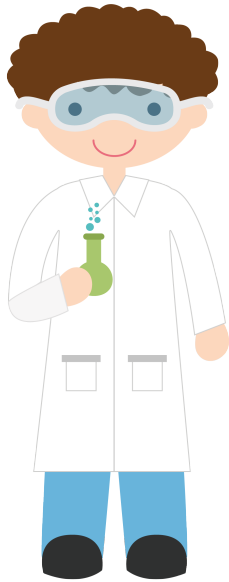
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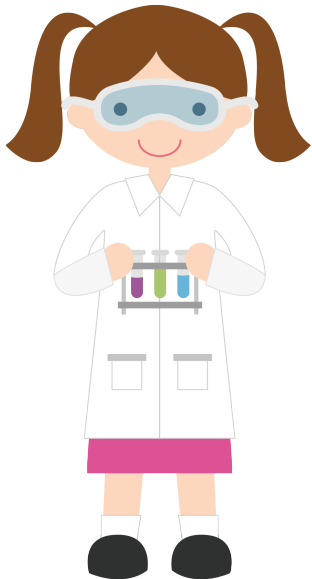
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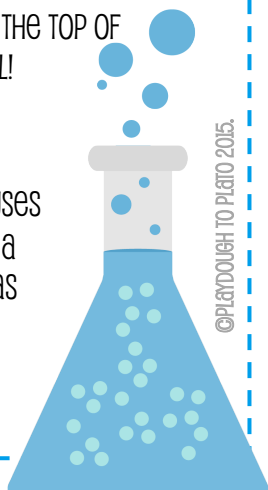
# MAGIC balloons

**Supplies**-EMPTY BOTTLE, BALLOON, ALKA SELTZER, WATER

**Experiment**-BREAK 4 ALKA SELTZER TABLETS INTO SMALL PIECES AND DROP THEM INTO THE BOTTLE.

FILL THE BOTTLE WITH ABOUT 1 CUP OF WATER AND QUICKLY STRETCH THE BALLOON OVER THE TOP OF THE BOTTLE. WATCH THE BALLOON FILL!

**Explanation**-WHEN YOU MIX ALKA SELTZER AND WATER TOGETHER IT CAUSES AN ACID-BASE REACTION THAT FORMS A GAS CALLED CARBON DIOXIDE. THIS GAS FLOATS TO THE TOP OF THE BOTTLE, FILLING THE BALLOON WITH CARBON DIOXIDE.



# STATES of MATTER

**Supplies**-BALLOONS, WATER

**Experiment**-FILL ONE BALLOON WITH WATER AND PLACE IT IN THE FREEZER OVERNIGHT.

THE NEXT MORNING, BLOW UP A SECOND BALLOON WITH AIR.

FILL A THIRD BALLOON TAP WATER.

WHEN THE WATER IN THE FIRST BALLOON HAS FROZEN COMPLETELY, PLACE THE THREE BALLOONS SIDE BY SIDE. SQUEEZE, POKE AND EXPLORE WITH THEM. WHAT IS THE SAME? WHAT IS DIFFERENT?

**Explanation**- THE THREE BALLOONS ARE FILLED WITH THREE DIFFERENT STATES OF MATTER: GAS {air}, LIQUID {water} AND SOLID {ice}.



# MAGIC rainbow MILK

**Supplies**-PLATE, MILK, FOOD COLORING, DISH SOAP, Q-TIPS

**Experiment**-POUR MILK ONTO THE PLATE, COVERING IT.

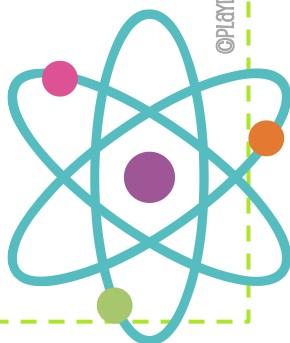
RANDOMLY DROP SEVERAL DIFFERENT COLORS OF FOOD COLORING ON THE MILK.

DIP YOUR CLEAN Q-TIP IN THE MILK. DOES ANYTHING HAPPEN?

NOW DIP A NEW Q-TIP IN DISH SOAP.

TOUCH THE Q-TIP TO THE SURFACE OF THE MILK IN SEVERAL SPOTS AND WATCH THE COLORS SWIRL AROUND.

**Explanation**- MILK IS MADE OF MANY THINGS INCLUDING WATER AND FATS THAT ACT LIKE OIL. OIL AND WATER DON'T LIKE EACH OTHER. ONE PART OF SOAP LIKES FAT AND ONE PART LIKES WATER SO WHEN THE SOAP TOUCHES THE MILK, THE SOAP MOLECULES MOVE THROUGH THE MILK SEARCHING FOR FAT AND MIXING UP THE FOOD COLORING IN ITS PATH.



# CANDY chromatography

**Supplies**-SKITTLES, COFFEE FILTERS, WARM WATER

**Experiment**-FLATTEN SEVERAL COFFEE FILTERS ONTO SEPARATE PLATES.

DIP ONE COLOR SKITTLE INTO THE WARM WATER AND LAY IT ON A COFFEE FILTER.

REPEAT THE STEPS WITH SEVERAL DIFFERENT COLORED SKITTLES.

WATCH THE COLORS SEPARATE INTO DIFFERENT COMPONENTS. FOR INSTANCE, GREEN SPREADS INTO YELLOW AND BLUE.

**Explanation**- CANDY MAKERS COMBINE DIFFERENT COLORS OF DYE TO COLOR THEIR CANDIES. FOR INSTANCE, BROWN IS MADE OF RED AND BLUE DYES. SOME DYES ARE MORE ATTRACTED TO THE COFFEE FILTER PAPER AND MOVE UP HIGHER WHILE OTHER DYES LIKE RED DISSOLVE MORE EASILY IN WATER AND ARE LESS ATTRACTED TO THE FILTER PAPER SO THEY DON'T MOVE AS WELL. THIS PROCESS IS CALLED CHROMATOGRAPHY.

