

STEAM stands for Science, Technology, Engineering, Arts, and Mathematics. STEAM is important to learn because it affects every aspect of our lives; from the world we live in, to the chairs we sit in. STEAM week will take place on the week of October 29th, 2018. Each day will correspond with a part of STEAM, for example, Monday is science, Tuesday is technology, etc.

The Bridgewater-Raritan Robotics Team is giving out prizes for each of the activities in this packet. For a chance to win, tag us on Instagram and Twitter with a picture of your child's finished project, and use the hashtag #STEAMWeek303. Winners will be announced on Wednesday, November 8th. The winner will come to the Wade Administration Building on Friday, November 10th to collect their prize. There will be one winner per activity.

Follow us on social media:

Facebook- FRCTeam303

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**To save paper this year, we put all the activities on our website:
Team303.com**

Fifth-Sixth Grade

Monday-Science: Lava Lamp

Tuesday-Technology: When Was it Invented?

Wednesday-Engineering: Paper Rockets

Thursday-Art: Milk and Soap Art

Friday-Math: Graphing Pictures



Lava Lamp

Ingredients:

- Bottle
- Vegetable oil
- Water
- Food coloring
- Alka-seltzer

Directions:

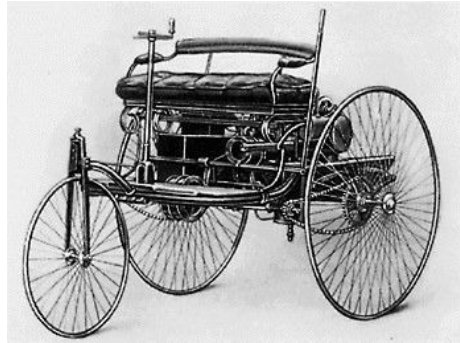
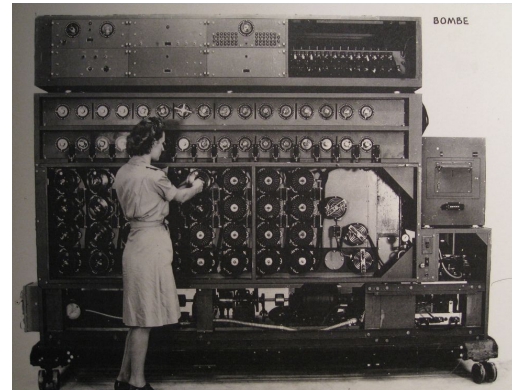
1. Fill the flask most of the way with vegetable oil.
2. Fill the rest of the flask with water. The water will sink to the bottom under the oil.
3. Add a few drops of food coloring; your choice of color. The food coloring is water-based, so it will also sink and color the water that is now at the bottom of the flask.
4. Break an alka-seltzer tablet into a few small pieces, and drop them in the flask one at a time.
5. Watch your lava lamp erupt into activity! As the reaction slows down, simply add more alka-seltzer.



Share your final product with us on social media (@FRCTeam303), using #STEAMWeek303, to enter the chance to win a prize!

When was it invented?

1. Light bulb
 - a. 1700
 - b. 1890
 - c. 1879
 - d. 1900
2. Computer
 - a. 1914
 - b. 1970
 - c. 1946
 - d. 1997
3. Car
 - a. 1920
 - b. 1885
 - c. 1849
 - d. 1492
4. Telephone
 - a. 2007
 - b. 1900
 - c. 1867
 - d. 1876
5. Typewriter
 - a. 1885
 - b. 1879
 - c. 1839
 - d. 1868
6. Iphone
 - a. 2007
 - b. 2013
 - c. 1867
 - d. 1876
7. Google
 - a. 2000
 - b. 2013
 - c. 1998
 - d. 1975
8. Microsoft
 - a. 1975
 - b. 1959
 - c. 2000
 - d. 1995



Google!
BETA



MICRO
SOFT

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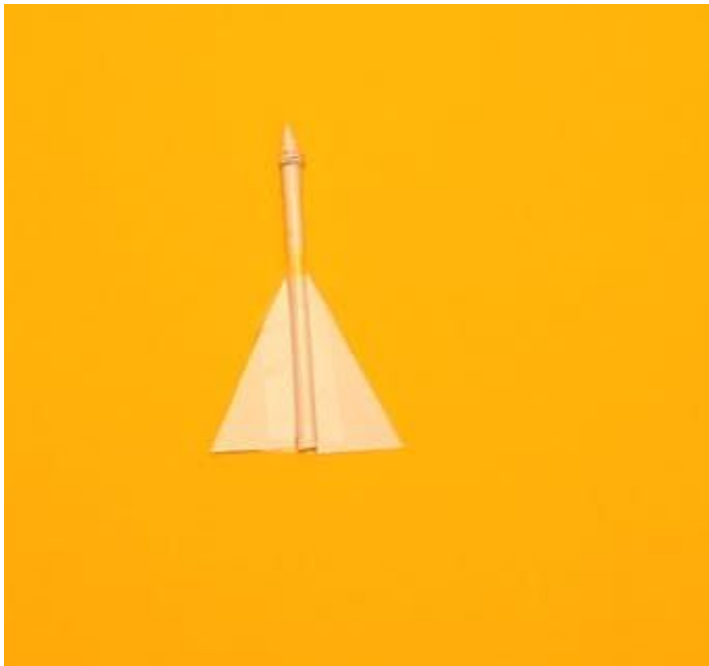
Paper Rocket

What You Need:

- a straw
- a pen
- sticky tape
- Scissors
- Paper
- a bottle lid

What You Do:

1. Cut out a paper square that has the same length as the straw.
2. Roll the paper square around the straw
3. Tape the paper roll
4. Cut out a circle from the paper
5. Cut a triangle out of the circle
6. Fold the circle into a cone shape
7. Cut out two triangles to make the wings of the rocket
8. Tape the wings and the nose cone to the body and add some decorations or logos with your pen!
9. Connect the straw with the rocket and blow on it to launch.



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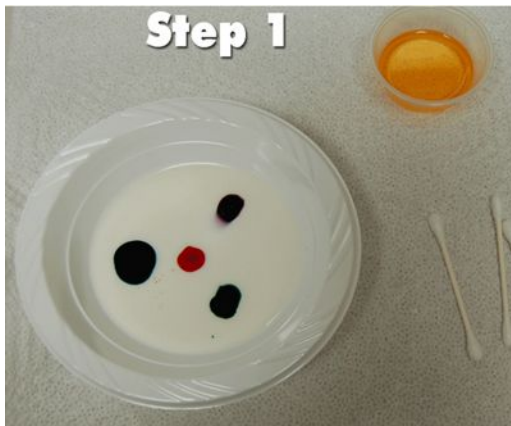
Milk and Soap Art

What you need

- A bowl
- $\frac{1}{2}$ cup of milk
- Dish soap
- Cotton swab
- Food Coloring, more than one color
- Pepper (optional)

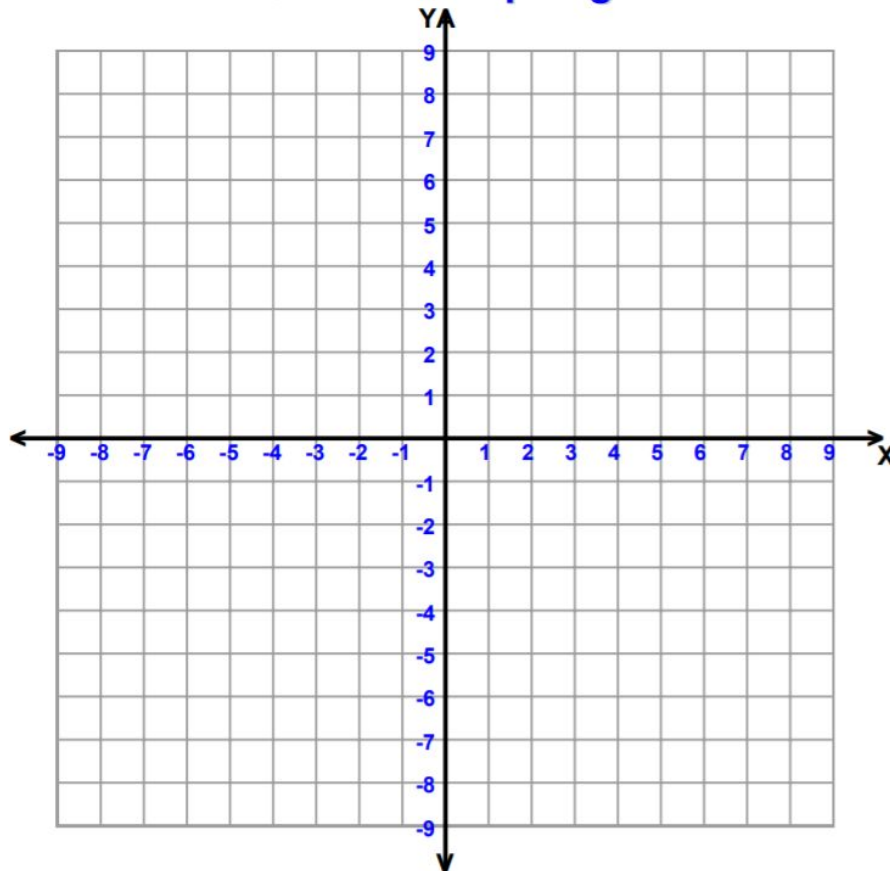
Directions:

1. Pour the milk into the bowl. Be careful not to move the bowl, you want the milk as still as possible.
2. Put one drop of each color in different places in the milk.
3. Put just a tiny amount of soap on the end of the cotton swab, then touch it to one of the colors. WOW!



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Four Quadrant Graphing Puzzle



Connect each sequence of points with a line.

(3,3) , (3,1) , (-6,-8) , (-8,-8) , (-8,-6) , (1,3) , (3,3) End of Sequence

(1,-1) , (5,-3) , (7,-7) , (3,-5) , (0,-2) End of Sequence

(-1,1) , (-3,5) , (-7,7) , (-5,3) , (-2,0) End of Sequence

(-1,-3) , (1,-7) , (5,-9) , (3,-5) , (0,-2) End of Sequence

(-3,-1) , (-7,1) , (-9,5) , (-5,3) , (-2,0) End of Sequence

(3,1) , (7,2) End of Sequence

(1,3) , (2,7) End of Sequence

(-7,-5) , (-5,-7) End of Sequence

(-6,-4) , (-4,-6) End of Sequence

(2,1) End of Sequence

(1,2) End of Sequence

What is the shape ? _____

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