

STEM Activities

In the movie we watched, a 14-year-old genius invents special microbots to join his brother's university robotics program. After tragedy ensues, a group of heroes unites and uses their strengths in chemistry and engineering to overtake a crafty villain.

With adult permission, try some of these experiments:

1. Honey Lemon's Chemistry Concoction

Honey Lemon uses her knowledge of chemistry to battle the villain in "Big Hero 6." See what happens when you try out this simple chemistry experiment at home!

Materials

• Baking Soda • Food Coloring (optional) • Vinegar • Tissue • Zipper Storage Bag

Directions:

1. Wrap a small amount of baking soda into a small tissue.
2. Pour a few tablespoons of vinegar into a zipper storage bag.
3. Have an adult help you place the wrapped baking soda carefully into the zipper storage bag holding it at the corner and making sure not to let it touch the vinegar yet.
4. Make sure the bag is securely sealed.
5. Let the baking soda drop into the vinegar and watch as your chemistry concoction bursts to life!

*Optional: Add different drops of food coloring into the vinegar for more fun concoctions!

2. Fred's Super-Hero Invisible Ink

Use science to share secret messages with your super-hero team using invisible ink!

MATERIALS: • Half a Lemon • Bowl • White paper • Cotton Swab • Lamp/Light Bulb

Directions:

1. Squeeze 1/2 lemon juice into a bowl and mix in a few drops of water.
2. Dip a cotton swab into the liquid mixture and, using the mixture as ink, write your super-hero secret message on the paper.
3. Allow the lemon juice "ink" to dry so it becomes completely invisible.
4. When you're ready to read your secret message, heat the paper by holding it close to a lamp or light bulb and watch the message appear!

From here, choose a problem in your school or community and work to brainstorm, design, and build solutions using your own unique talents!