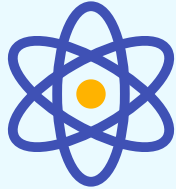




STEAM Activity Chart for Sugar



Science

Fill two cups with equal amounts of water, one with cold water, and the other with hot water (be careful!). Put one sugar cube into the cup of cold water and stir until the sugar dissolves. Continue adding cubes until the sugar no longer dissolves in the water, be sure to count how many cubes were able to dissolve. Do the same thing with the hot water. Which temperature water dissolved more cubes? Why do you think this happened?



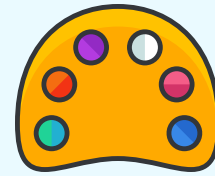
Technology

India is the second largest producer of sugar in the world. The industry provides economic stability to millions of people across the rural region. Research two types of technology utilized in the sugar industry. Are there any new technological innovations that threaten the sustainability of the sugar industry in rural India?



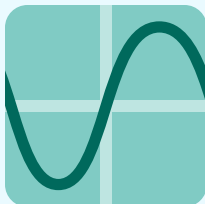
Engineering

Fill six cups with equal amounts of water. Add a different color food coloring to each cup. In the first cup do not add sugar. Add 1 tbsp of sugar in the second cup, 2 tbsp to the third cup, and so on. Place about 1/2 inch of a straw in the first cup. Cap the top of the straw with your thumb. Remove and place the straw a little deeper into the next cup. Continue to do the same with all colors. What do you notice? How do you think density works?



Art

Add 2 parts sugar to 1 part water and boil to mix together. Tape down your paper on all borders. Paint a thin layer of the sugar-water mix onto the paper. Drop watercolor paint onto the sugar-water mix in small drops and watch the color bloom. Be sure to get your colors onto the paper before your sugar-water mix dries. Get creative with your colors! Why do you think the watercolor paints spread out on the sugar water base? Keep exploring!



Mathematics

Select two or more snack/drink items in your home. Look at the ingredients on the packaging and list the amount of sugar that is in each item (in grams). 4 grams is equal to 1 teaspoon of sugar. How many teaspoons of sugar are in each item? How much of each item can you consume per day if the recommended amount of sugar for children is 6 teaspoons per day? Are you eating too much sugar per day?!



Fun Facts!

Sugar was once considered a spice, not a sweetener.

Sugar was used as medicine for centuries.

Dogs have a sweet tooth, but cats don't!

Children should not consume more than 6 teaspoons of sugar per day.