

### STEAM **Week 3**

Using a variety of words to describe things can help our children gain a deeper understanding of science and the world around them. Talk about viscosity (just like motor oil!) and density as you explore the rainbow jar. You can make predictions about which liquids will rise or fall as you add them. You could also discuss color theory and which colors are primary (red, yellow, blue) and which secondary colors will be formed when the colors are mixed in the rainbow jar as well as the bubble snake if you do the optional art portion.

- **Bubble Snake/Dragon's Beard:** empty plastic beverage bottle, bowl with dish soap and water (Dawn worlds best), a sock/washcloth/produce mesh; optional: rubber band to hold cloth/mesh in place
  - Have an adult cut the bottom off of the bottle
  - Cover this end with the cloth/mesh, securing it to the bottle
  - Dip the cloth-covered end of the bottle into the soapy water
  - Blow through the opposite (drinking) end of the bottle

*How long of a bubble stream can you create?*

You can also add food coloring to the water, then blow bubbles onto sturdy paper to create bubble art!

- **Rainbow Jar:** clear jar or bottle, liquid measuring cup with pour spout, spoon, water, food coloring, blue dish soap, cooking oil, rubbing alcohol, light corn syrup; optional: rubber spatula
  - Remove labels from your container
  - Be sure to pour liquids SLOWLY to avoid mixing
  - Measure  $\frac{1}{2}$  C corn syrup, add 1-2 drops each of red and blue food coloring; mix; add to jar
  - Measure  $\frac{1}{2}$  C blue liquid dish soap; add slowly down the side of the jar
  - Measure  $\frac{1}{2}$  C water, add 2 drops green food coloring; mix; pour slowly down the side of the jar
  - Measure  $\frac{1}{2}$  C yellow cooking oil; add slowly down the side of the jar
  - Measure  $\frac{1}{2}$  C rubbing alcohol, add 2 drops red food coloring; mix; pour slowly down the side of the jar

*What happens?*  
*Which liquid is the most dense?*  
*Which one is least dense?*  
*How does the density compare to the viscosity?*  
*What other liquids could you try this with?*