

STEM

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Rainbow Jar

Recommended Age: 25–30 Months

STEM concepts: science (physical science), technology (simple tools), engineering (engineering), math (number sense and operations, measurement)

Materials: 6 clear glass jars, honey, blue or green dishwashing soap, water, vegetable or olive oil, rubbing alcohol, food coloring, measuring cup, magnifying glass

What to do: Pour each of the five liquids into a separate container and line them up in this order: honey, dishwashing soap, water, vegetable or olive oil, and rubbing alcohol. Add food coloring to each of the liquids: purple to honey, blue to the dishwashing soap, green to the water, yellow to the vegetable or olive oil, and red to the rubbing alcohol. When the liquids are added in that order, they will look like a rainbow. Measure $\frac{1}{3}$ cup of each liquid. First pour the purple honey and then the blue dishwashing soap in the jar. Next, slowly pour the green water down the sides of the jar. Then pour in the yellow vegetable or olive oil and the rubbing alcohol down the side of the container. Let your child examine the “rainbow” layers with the magnifying glass. **DON'T SHAKE OR STIR THE JAR!**

Language and Communication: Discuss each of the liquids, allowing your child to smell and feel all except the rubbing alcohol before adding it to the container. Talk about the differences in the jars. After combining the liquids into one jar talk about what you see in the jar. Count the different liquids and colors they see.

Expand the Activity: Drop a marble into the jar and watch it move through the jar. Does it move differently?

