Jelly Stones Experiments

Individual Experiments with Jelly Stones

1. Put ⅛ teaspoon of Jelly Stones in a cup with 2 ounces of water. Wait four hours. What happens?
2. Submerge a few Jelly Stones into a full cup of water. Wait about four hours. How much do they expand? How do they look?
3. Put a saturated Jelly Stone on a paper towel. The paper towel will absorb the water from the Jelly Stone. How long does it take the Jelly Stone to lose water and change back into a small pebble?
4. Dry Jelly Stones are colored. Put ⅛ teaspoon of each color of Jelly Stones into a cup. Now add 4 ounces of water. Wait one hour. Do the Jelly Stones retain their color when fully grown?
5. Have two cups on hand. Put ⅛ teaspoon of each color of Jelly Stones into each cup. Add 4 ounces of hot water to the first cup and stir. Add 4 ounces of cold water to the second cup and stir. Which cup absorbed the most water? Which cup absorbed the water the quickest?
6. Put ⅛ teaspoon of Jelly Stones in a full glass of water. While the polymers are absorbing the water, stir so that the Jelly Stones move with the water. Stop stirring. What happens? Watch the Jelly Stones closely.

Group Experiments with Jelly Stones

Divide into groups of three for the following experiments.

7. **Jelly Stone Absorption**
   Group 1: Put ⅛ teaspoon of Jelly Stones in a cup with 2 ounces of cold water. Do the Jelly Stones absorb the cold water? How big do they get?

   Group 2: Put ⅛ teaspoon of Jelly Stones in a cup with 2 ounces of warm water. Do the Jelly Stones absorb the warm water? How big do they get?

   Group 3: Put ⅛ teaspoon of Jelly Stones in a cup with 2 ounces of hot water. Do the Jelly Stones absorb the hot water? How big do they get? Which group has the Jelly Stones that absorb the most water? Which group absorbs the water the quickest?
8. **Jelly Stone Color**
   Group 1: Put ⅛ teaspoon of each color of Jelly Stones into a cup. Observe the color mixing. Now add 4 ounces of water and stir. How do the colors look? Is there a dramatic color change?

   Group 2: Have four separate cups on hand. Put ⅛ teaspoon of bright ruby Jelly Stones in the first cup, ⅛ teaspoon of yellow Jelly Stones in the second cup, and ⅛ teaspoon of aquamarine Jelly Stones in the third cup. Add 2 ounces of water to each. Wait 5 minutes. Now take all three cups and pour them into the fourth cup. Stir the mixed Jelly Stones. How do the colors look? Is there a more dramatic color change?
   Which method has the most dramatic color change? Which method allows for the most control on the colors that are created?

   Group 3: Try mixing Jelly Stone colors. Mix aquamarine and yellow Jelly Stones. What color do you predict you will get? Try mixing bright ruby and aquamarine Jelly Stones. What color do you predict? Try mixing all three colors of Jelly Stones together. What color do you think they'll be?

Discussion Questions

How do Jelly Stones work? What is a polymer?

What causes a molecule to be polar or non-polar? What is an example of polar molecule? A non-polar molecule?

What other special uses could Jelly Stones have?

GobbledyGoop Experiments

Individual Experiments with GobbledyGoop

1. Add 4 ounces of water to a cup. Slowly stir in 1 teaspoon of GobbledyGoop powder with the stirring spoon. What happens?
2. Have two cups on hand. Put a small amount of GobbledyGoop powder into the bottom of the first cup. Now pour 2 ounces of water over the GobbledyGoop powder in the first cup and stir. Add 2 ounces of water to the second cup. Now add a small amount of GobbledyGoop powder to the second cup and stir. What happens? Which method makes smoother slime?
3. Design new colors of GobbledyGoop by making different colors of water (with included food coloring tablets) and then adding the GobbledyGoop powder.

Group Experiments with GobbledyGoop

Divide into groups of three for the below experiments.

1. **GobbledyGoop Water Temperatures**
   Group 1: Put ½ teaspoon of GobbledyGoop powder into a cup. Now add 2 ounces of very cold water to the cup and stir. What happens?

   Group 2: Put ½ teaspoon of GobbledyGoop powder into a cup. Now add 2 ounces of warm

water to the cup and stir. What happens?

Group 3: Put ½ teaspoon of GobbledyGoop powder into a cup. Now add 2 ounces of hot water to the cup and stir. What happens?
Which water makes the slime the fastest? How does the slime react to each temperature of water?

2. **Viscosity of GobbledyGoop**
Group 1: Add 2 ounces of water to a cup. Now slowly stir in 2 teaspoons of the GobbledyGoop powder. Is the slime thick or thin?

Group 2: Add 2 ounces of water to a cup. Now slowly stir in 1 teaspoon of the GobbledyGoop powder. Is the slime thick or thin?

Group 3: Add 2 ounces of water to a cup. Now slowly stir in ½ teaspoon of the GobbledyGoop powder. Is the slime thick or thin? Add 2 more ounces of water? Is the slime thick or thin?
Is one group's slime thicker or thinner than the others? What causes the slime to be either thick or thin?

3. **GobbledyGoop Colors**
Group 1: Add 2 ounces of water to a cup. Next, add the red and blue food coloring tablets. Stir in ½ teaspoon of the GobbledyGoop. What color is the GobbledyGoop?

Group 2: Add 2 ounces of water to a cup. Next, add the yellow and red food coloring tablets. Stir in ½ teaspoon of the GobbledyGoop. What color is the GobbledyGoop?

Group 3: Add 2 ounces of water to a cup. Next, add the yellow and blue food coloring tablets. Stir in ½ teaspoon of the GobbledyGoop. What color is the GobbledyGoop?
Which group has the most distinct colors? What colors does each group make?

Discussion Questions

How does GobbledyGoop work? Why is GobbledyGoop so slimy and stringy? What is a polymer?

What other uses could GobbledyGoop have?

What is erosion? Could GobbledyGoop be helpful with erosion? Why or why not?

Notes

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