

EXPERIMENT 5: Hole-y Water by Bill Nye, The Science Guy

Challenge: Find out if there is empty space between molecules of water.



WHAT YOU NEED:

- Powdered sugar
- Cup of hot water
- Teaspoon



STEP-BY-STEP:

1. Fill the cup to the brim with hot tap water. Get the surface to bulge above the rim.



2. Without dipping the teaspoon in the water, CAREFULLY add a teaspoon of powdered sugar to the water.



3. Repeat several times.



QUESTIONS:



- Can a container that looks completely full still have room? How many teaspoons of sugar can be absorbed?
- If sugar does not make the water overflow, why will the spoon make it overflow?
- What if the cup was filled with so many beans you couldn't get one more in there? What happens if you slowly pour water over the beans? Will they spill out? Why not? What happens if you keep adding water?