

Reappearing Salt Activity Sheet

Name: _____

Date: _____

Instructions:

1. Gather your materials to dissolve and evaporate salt!
 - a. Table Salt, teaspoon, measuring cup, pitcher (or cups if making smaller portions), watch glasses (or small glass containers that are oven-safe), water, stir stick, magnifying glass, black construction paper, source to evaporate (oven, sun, heat lamp, or hot plate)

Explore the Salt:

2. Lay out your black construction paper in front of you and put a teaspoon of salt onto it.
3. Look at the salt through a magnifying glass and draw or write down your observations and hypotheses:
 - a. What do you see?



- b. What do you think will happen if you put the salt in the water?
 - c. What do you think will happen if you evaporate the water from the glass?

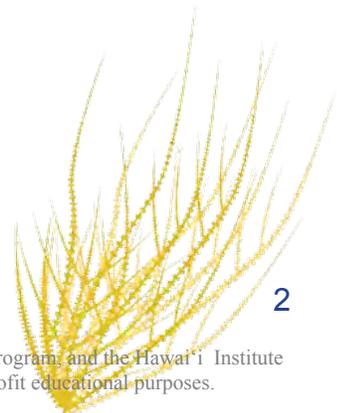
Make a Large Batch of Saltwater:

4. Measure out 3 1/2 teaspoons of salt into a pitcher (about 20 grams).
5. Add 4 1/4 cups of water (about 1000 mL).
6. Stir the salt and water mixture.
7. If using food grade salt, taste the mixture using a clean spoon.



Evaporate Saltwater:

8. Pour small portions of your saltwater into your glass containers.
9. Evaporate the water:
 - a. **In the oven:**
 - i. Bake the samples in an oven on a baking sheet until all the liquid has evaporated.
 - ii. Keep the oven temperature under 95°C (≈200°F).
 - b. **With the sun:**
 - i. Place the watch glasses or small cups on a window sill or somewhere with direct sunlight.
 - ii. Let the water evaporate naturally; this may take days to weeks, depending on the amount of water used.
 - iii. Revisit the cups regularly to observe the progress of evaporation.
 - c. **Using a heat lamp or hot plate:**
 - i. Heat the watch glass to no more than 60°C. Do not let the water boil.
 - ii. When the water is almost gone and the crystals look slightly wet, you can remove the remaining water by turning up the heat a little until the crystals are dry.
 - iii. If the crystals begin sputtering, turn down the heat.
10. When all of the water is gone, examine the salt crystals under a magnifying glass again. Write or draw your observations:





Activity Questions

1. What happened when you added salt to the water?
2. Can you see the salt in the water after you stirred it?
3. Where does the ocean get its salt?
4. What does this activity tell you about the materials in the ocean?
5. How did this activity
6. You have just established that you can't see salt when it's dissolved in water, but you know that it's there. Can you think of other examples of matter that you know is there but can't see? (Hint: think about sugar, food coloring, or a fire)
7. How does this activity help you to understand that matter is too small to be seen?

