

Elements, Compounds & Mixtures

Name: _____ Date: _____

LEARNING OBJECTIVE

The student will classify substances as elements, compounds, or mixtures and physically separate a mixture.

MATERIALS NEEDED

- 1 tablespoon of table salt
- 1 tablespoon of sand or fine gravel
- A cup of water
- A coffee filter or paper towel
- A spoon
- A clear cup or bowl
- Notebook paper

HANDS-ON ACTIVITY

1. Mix the salt and sand together in the cup to create a mixture; observe and record what it looks like.
2. Add water to the salt/sand mixture and stir with the spoon until the salt dissolves.
3. Pour the mixture through a coffee filter into another clear cup to separate the sand (filtered out) from the salt water (passes through).
4. Let the salt water sit uncovered for the rest of the day (or overnight) and observe what remains after some water evaporates.
5. On notebook paper, draw and label a 3-column chart classifying salt (a compound: NaCl), sand (a mixture of minerals), and the salt-sand mixture you made as element, compound, or mixture.

QUESTIONS

1. What physical process did you use to separate the sand from the salt water, and why did it work?

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2. Is table salt an element, compound, or mixture? Explain.
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3. What did you observe after the water evaporated, and what does this show about the salt?

4. Explain the difference between a mixture and a compound using your salt-and-sand example.
