

## Classification of Matter

1. Define the term matter. Why is this term shown in the diagram as the most general classification?

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2. Define the term mixture

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3. Which are shown as more ordered: heterogeneous materials or homogeneous materials? Why is this the case?

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4. Compare and contrast substances and solutions.

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5. What are the two types of substances? How do the two types differ?

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6. Can compounds be heterogeneous mixtures? Explain your answer, referring to the diagram.

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7. Which is the more general classification: homogeneous materials or compounds? Explain your answer.

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8. How are mixtures classified?

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9. What type of properties can be used to separate mixtures?

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10. Explain the term phase as it relates to homogeneous and heterogenous mixtures.

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11. Classify each of the following as heterogeneous or homogenous mixture.

- a. food coloring \_\_\_\_\_
- b. ice cubes in liquid water \_\_\_\_\_
- c. mouthwash \_\_\_\_\_
- d. mashed, unpeeled potatoes \_\_\_\_\_

12. A clear liquid in an open container is allowed to evaporate. After three days, a solid is left in the container. Was the clear liquid an element, a compound, or a mixture? How do you know?

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13. Looking at the items in the kitchen, pantry, bathroom, and cleaning supply area of your home, find three examples each of elements, compounds, solutions, and heterogeneous mixtures. You may need to read the labels.

**Elements**

Example

Found In.....

_____	_____
_____	_____
_____	_____

**Compound**

Example

Found In.....

_____	_____
_____	_____
_____	_____

**Solution**

Example

**Heterogeneous Mixture**

Example

_____	_____
_____	_____
_____	_____