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| Name: | Class: | Date: |

**Section 6.1: Pure Substances and Mixtures**

Try This – Test Ink

1. Make a prediction: is black ink a pure substance or a mixture?

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1. a) Make observations of what you saw when the filter paper with the dot was placed in water.

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b) Draw a diagram of your observations.

1. Write a conclusion: What happened? Was your prediction right? How do you know?

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1. Fill in the blanks to complete the sentences:

Pure substances:

* Pure substances contain only one kind of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* There are millions of pure \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, but they are very rare in nature.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ are one of the very few exceptions.
* Most pure substances you encounter are made pure by \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* A pure substance has the same \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, no matter what its size or shape.
* Scientists have made reference lists of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that can help you \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ an unknown substance.

Mixtures:

* A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ contains two or more pure substances.
* A mixture can be a combination of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* Different samples of a mixture may have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ properties depending on the amount of each pure substance is in the sample.

Check Your Understanding

1. Explain the difference between a pure substance and a mixture, using example of each.

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1. Explain the difference between a pure substance and a mixture, using the particle model.

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1. Give three examples of pure substances and three examples of mixtures:

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| Pure Substances | Mixtures |
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