

Substances & Mixtures

Worksheet (Grade Level)

Name _____

Question 1

What is the difference between a pure substance and a mixture?

Question 2

Using the particle model, explain why a mixture of salt and water can be separated by evaporation.

Question 3

How would the properties of a pure substance help you separate it from a mixture? Give an example.

Question 4

Describe what happens at the particle level when two substances are mixed together.

Question 5

If you have a mixture of sand and iron filings, how could you separate them using their properties?

Question 6

Why is it difficult to separate the components of a pure substance, and how does this compare to a mixture?

Notes:

Substances & Mixtures

Worksheet (Higher Level)

Name _____

Question 1

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

Question 2

How could the particle model be used to explain the separation of a saltwater mixture through evaporation?

Question 3

In what ways do the properties of pure substances assist in separating them from mixtures? Provide an example with reasoning.

Question 4

Discuss the behavior of particles when two substances form a mixture, and how this affects the separation process.

Question 5

Given a mixture of sand and iron filings, describe a method to separate them based on their properties, explaining the underlying principles.

Question 6

What challenges are involved in separating components of a pure substance compared to a mixture, and how does the particle model clarify these differences?

Notes:

Substances & Mixtures

Worksheet (Lower Level)

Name _____

Question 1

What is the difference between a pure substance and a mixture?

Question 2

How can you separate salt from water using heat? What happens to the salt and water?

Question 3

Why is it easier to separate some substances in a mixture than in a pure substance?

Question 4

What happens to the particles when two things are mixed together?

Question 5

How can you separate sand from iron filings? What tools or methods could you use? How can you separate sand from iron filings? What tools or methods could you use?

Question 6

Why is it harder to separate parts of a pure substance than a mixture?

Notes: