

PRACTICE WORKSHEET 2: EXPERIMENTS WITH WATER | CLASS 5 ENVIRONMENTAL STUDIES

Multiple Choice Questions

- Which of these substances is **insoluble** in water?
 - Sugar
 - Salt
 - Sand
 - Baking soda
 - What happens when you mix salt in water?
 - It sinks to the bottom
 - It floats on the surface
 - It dissolves completely
 - It turns the water cloudy
 - Why does a piece of wood float on water?
 - It absorbs water
 - It is less dense than water
 - It sticks to the water surface
 - It is soluble in water
 - Which substance will dissolve faster in water?
 - A large block of sugar
 - Crushed sugar crystals
 - Whole sugar cubes
 - None of the above
 - What do you call liquids like oil and water that do not mix?
 - Soluble liquids
 - Immiscible liquids
 - Dense liquids
 - Buoyant liquids
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Fill in the Blanks

- Substances that do not _____ in water are called insoluble.
 - _____ objects float on water because they are less dense.
 - Salt and sugar are _____ substances as they dissolve in water.
 - _____ and _____ are examples of immiscible liquids.
 - Increasing the _____ of water helps substances dissolve faster.
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True or False

1. Sand dissolves in water if stirred for a long time. (True/False)
 2. Sugar dissolves faster in cold water than in warm water. (True/False)
 3. Liquids that are less dense than water float on its surface. (True/False)
 4. Mixing oil and water forms a uniform solution. (True/False)
 5. Large crystals of salt dissolve faster than powdered salt. (True/False)
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Short Questions

1. Why do some materials float while others sink in water?
 2. What is the difference between soluble and insoluble substances?
 3. How does crushing a solid affect its rate of dissolving in water?
 4. Why do oil and water not mix, even when stirred?
 5. How can we separate sand from water if they are mixed?
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Long Questions

1. Describe an experiment to find out which materials dissolve in water and which do not.
 2. Explain the factors that affect how fast a substance dissolves in water, with examples.
 3. Discuss the importance of understanding soluble and insoluble substances in daily life, providing at least three examples.
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Answer Key

Multiple Choice Questions

1. c. Sand
 2. c. It dissolves completely
 3. b. It is less dense than water
 4. b. Crushed sugar crystals
 5. b. Immiscible liquids
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Fill in the Blanks

1. Dissolve
 2. Light
 3. Soluble
 4. Oil, water
 5. Temperature
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True or False

1. False
 2. False
 3. True
 4. False
 5. False
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Short Questions

1. Materials float if they are less dense than water, like wood. Denser materials, like stones, sink in water.
 2. Soluble substances dissolve in water, like sugar and salt, while insoluble substances, like sand, do not mix with water.
 3. Crushing increases the surface area of a solid, allowing it to dissolve faster in water.
 4. Oil and water do not mix because they are immiscible and have different densities. Oil is less dense and floats on water.
 5. Sand can be separated from water by filtering it through a fine sieve or filter paper.
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Long Questions

1. **Experiment to test solubility:**

- Take water in a glass and add small amounts of sugar, sand, oil, and salt one by one.
- Stir each substance and observe if it dissolves or remains separate.
- Record observations: sugar and salt dissolve (soluble), sand and oil do not (insoluble).

2. **Factors affecting dissolving:**

- **Temperature:** Warm water dissolves substances faster.
- **Size of particles:** Crushed solids dissolve faster than large chunks.
- **Stirring:** Stirring increases the rate of dissolving by mixing the particles with water.

3. **Daily importance:**

- In cooking: Dissolving sugar or salt in water is essential for preparing food.
- In medicine: Solubility helps medicines dissolve in water for better absorption.
- In cleaning: Soaps and detergents dissolve in water to clean clothes and utensils.