

Girls' High School and College, Prayagraj.

Worksheet 5

Session 2020-2021.

Class 4 A-F

Lesson: States of Matter and Solution

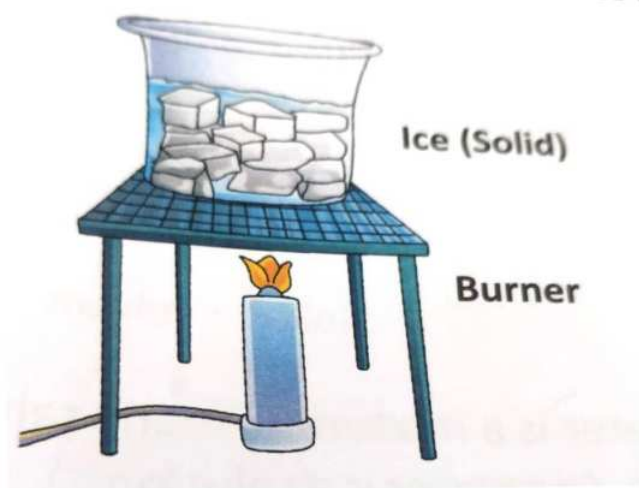
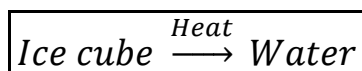
Topic- Change of states.

Instructions to parents: Kindly help the child understand the text carefully (including the diagrams) and answer questions related to the topic.

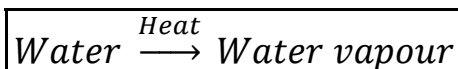
CHANGE OF STATE: Matter can change its form from one state to the other. Solids on heating change into liquids and liquids on heating change into gases.

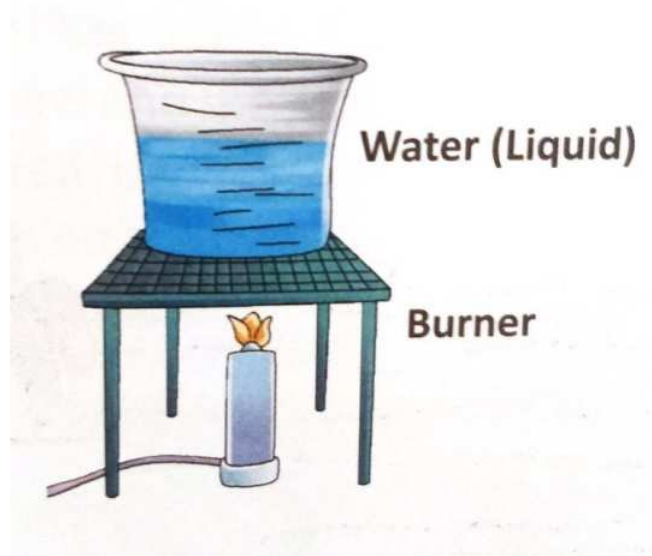
The process by which a solid changes into a liquid is called **melting**.

We can observe the same by taking out ice cubes from the freezer, which are in the solid state, when we keep them at room temperature they start to melt.

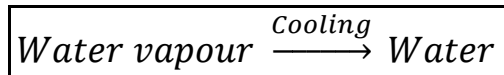


When a liquid is heated, vapours are formed. The process by which a liquid changes into vapour is called **evaporation**.

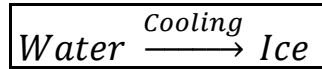




When a cold steel plate is held over boiling water, some drops of water condense on it. The process by which gas vapours change into a liquid form on cooling is called **condensation**.



When you keep water in an ice tray in the freezer, it changes to its solid form of ice. The process by which a liquid changes to its solid form on cooling is called **solidification**.



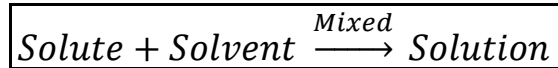
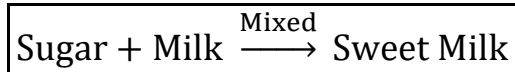
COOLING →



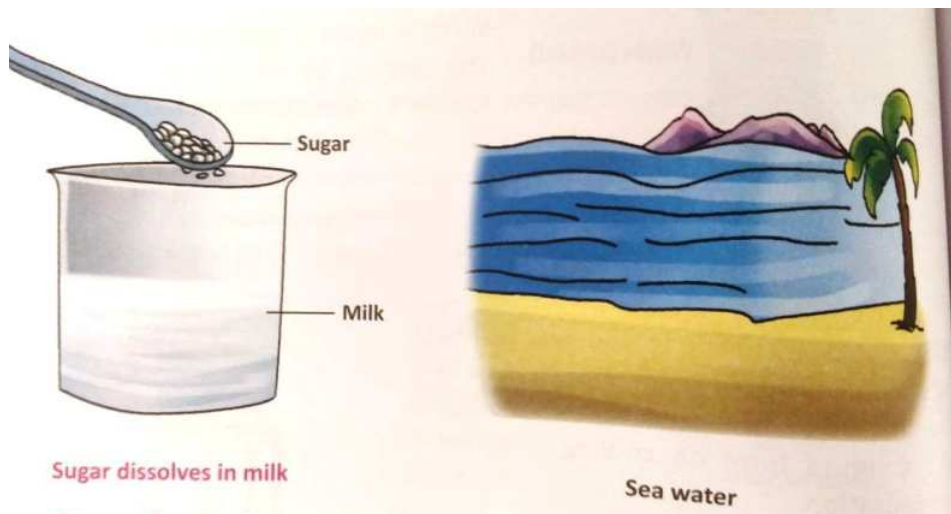
### SOLUTE, SOLVENT and SOLUTION

Take some hot milk in a tumbler. Add some sugar to it and stir the milk. You will find that sugar completely dissolves in the milk.

The substance that dissolves is the **solute**. The substance in which the solute dissolves is called the **solvent**. The mixture of solute in the solvent is called the **solution**.



Sea water is a mixture of many salts and water. The salts are solute and the water is the solvent. Sea water is the solution.



**EXERCISE 1: Choose the correct word from the box and fill in the blanks:**

<b>Solute</b>	<b>Solvent</b>	<b>Vapours</b>	<b>Sea water</b>	<b>Heating</b>
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1. \_\_\_\_\_ is a mixture of many salts and water.
2. The substance in which a solute dissolves is called a \_\_\_\_\_.
3. Any solid substance that dissolves in a solvent is known as a \_\_\_\_\_.
4. Solids can change into liquids on \_\_\_\_\_.
5. When a liquid is heated \_\_\_\_\_ are formed.

**EXERCISE 2: Match the following:**

**Column A**

**Column B**

1. Melting	a. Water
2. Ice Cubes at room temperature	b. Change of state
3. Water+ Sugar	c. Ice
4. Water in freezer	d. Solution
5. Solid → Liquid → Gas	e. Solid → liquid

**EXERCISE 3: Read, understand and learn the following question and answers.**

Question 1) What is evaporation?

Answer 1) When a liquid is heated, vapours are formed. The process by which a liquid changes into vapour is called **evaporation**.

Question 2) What is condensation?

Answer 2) The process by which gas vapours change into a liquid on cooling is known as **condensation**.

Question 3) What is solidification?

Answer 3) The process by which a liquid changes to its solid form on cooling is called **solidification**.

Question 4) Give two examples of any Solution.

Answer 4) Two examples of solution are:-

- Sea water.
- Sweet tea.

Question 5) What is melting?

Answer 5) Melting is a process in which solids can change into liquid state on heating.

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**END**