



**INDIAN SCHOOL AL WADI AL KABIR
DEPARTMENT OF SCIENCE 2016-17
HOLIDAY ASSIGNMENT – SUMMER VACATION
CLASS 9**

1. Journal completion for Physics / Chemistry / Biology
(As instructed by the respective Science Teachers in the class.)
2. Completion of worksheet : Matter in our Surroundings
(file format)

- **DATE OF SUBMISSION : Reopening Day**

INDIAN SCHOOL AL WADI AL KABIR
DEPARTMENT OF SCIENCE 2017-18

HOLIDAY HOME ASSIGNMENT - CHEMISTRY

CLASS: IX

NAME:

WS.NO:1

TOPIC: MATTER IN OUR SURROUNDINGS

DATE: 23.05.17

GENERAL INSTRUCTIONS:

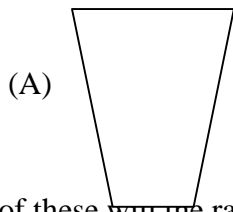
1. Please use only A4 sized sheet for writing the answers.
2. Please submit the worksheet in a file format.

I. Answer the following in about a word or a sentence.

1. State the common characteristic of liquid and gas.
2. Equal amounts of a solid and a liquid are taken. Which of these will be denser? Why?
3. A substance has a definite volume but no definite shape. Identify which state of matter will be this substance.
4. What is evaporation?
5. The melting point of an element is 1535K. What would be its physical state at 335K? At what temperature do solid ice and liquid co-exist together?
6. What is the physical state of water at?
a) 313K b) 273K
7. If the boiling point of a liquid is 598K, what will it be in Celsius scale?

II. Answer the following in about 30 words.

1. A sample of water was heated from 302K to 309K.
 - a. What were the initial and final temperatures of water in Celsius scale?
 - b. How much was the rise in temperature on Kelvin scale and Celsius scale?
2. Use the following information to answer the questions that follow:
The teacher mixed some marble powder with dry ice. On keeping the mixture in open air for few minutes, the dry ice vanished and only the marble powder was left behind.
 - a. What happened to the dry ice?
 - b. If normal ice had been kept in place of dry ice and the mixture was kept open at room temperature, what would have happened?
3. The containers in the figure contain same quantity of water and are kept under the same conditions.



- (i) In which of these will the rate of evaporation be faster and why?
- (ii) Why is evaporation called a surface phenomenon?

4. Why is “dry ice” so called?
5. Ghee freezes at room temperature and mustard oil does not (in winter). Which of these has a higher melting point and lower intermolecular forces?

III. Answer the following in about in 50 words.

1. Briefly explain any three factors which affect evaporation.
2. What is fusion? What are the changes that take place when a solid gets converted into a liquid?

IV. Give reasons for the following:

1. Water evaporates faster in a petri dish than in a test tube.
2. Iron has a higher melting point than ice.
3. Gases are more compressible than liquids
4. Cotton clothes are comfortable to wear in summer
5. Palm of your hand feels cold when we pour acetone on your palm.
6. A gas exerts pressure on the walls of a container in which it is kept.
7. A gas fills completely the vessel in which it is kept.
8. A diver is able to cut through water in a swimming pool.
9. Naphthalene balls disappear with time without leaving any solids
10. On hot sunny day people sprinkle water on the roof or open ground.

V. PREVIOUS YEARS' BOARD QUESTIONS:

1.i) What is meant by evaporation? Water kept in an earthen pot becomes cool during summer. Why?

ii) With the help of a labelled diagram, describe an activity to show sublimation of ammonium chloride. [5]

2. Explain by an activity that different states of matter have varied force of attraction between the particles. [3]

3.a) List three characteristics of particles of matter. When we add some sugar or salt in a beaker containing water after sometime the sugar or salt becomes invisible. Where does it go?

What property of particle of matter does it show?

b) How will you justify that ice, water and steam are the three states of a substance and not different substances? [5]

4. State all the factors that affect the rate of evaporation of water and also state how these factors affect it. [3]

5. Illustrate an activity to demonstrate that particles of matter have spaces between them. [2]

6. Comment on the statement – ‘Evaporation causes cooling’. [2]

7. Arrange in order indicated for solid, liquid and gas. [3]

(a) tendency to flow – decreasing order. (b) effect spaces in the particles – decreasing order.