

## Class-IX Holiday's Homework

### English

1. Revise the syllabus covered so far.
2. Write central idea and poetic devices used in the poems. (Poem 1 to 3)
3. Write an article on the following topics according to the roll numbers mentioned in bracket.
  - a) Faith without action is delusion (Roll no. 1-9)
  - b) India's progress since Independence (Roll no. 9-18)
  - c) Child Labour and Battle for Children Right in India (Roll no. 19-27)
  - d) Staying vigilant while on social media (Roll no. 28 onwards)
4. Practice formal letters and story writing.
5. Read English newspaper daily and find new words.

### Hindi

1. | का सम्पूर्ण पाठ्यक्रम याद करो 1-TP
2. रहीम के दोहे कंठस्थ करो |
3. अकबर के दरबार में नवरत्न थे | ऐसे नौ रत्नों के चित्र लगाकर संक्षेप में लिखिए |
4. आगे बढ़ती भारतीय महिलाओं के चित्र लगाकर| उनके बारे में संक्षेप में लिखिए ,
5. आपके शहर में गर्मियों की छुट्टियों में नृत्य सिखाने का संस्थान खुला 'केंद्र-कृथक' | एक विज्ञापन तैयार करो | है
6. अपनी मनपसन्द कोई एक पुस्तक पढ़कर समीक्षा लिखिए |
7. विद्यालय पत्रिका के लिए कोई एक स्वरचित लेख लिखिए|
8. नीचे लिखे अनुक्रमांक अनुसार विद्यार्थी चार्ट पर विभिन्न लेखकों पर आधारित 4/A परियोजना कार्य तैयार करें :-

अनुक्रमांक(प्रेमचंद) 10-1 -  
) 20-11 यशपाल(  
) 30-21 महादेवी वर्मा(  
(जयशंकर प्रसाद) से आगे 31

### Maths

- DO THE GIVEN ASSIGNMENTS OF CH. – 1,2,3,4,6 AND 7
- REVISE CH. – 1,2,3,4 FOR PT 1

### Science

- Make any working model for the science exhibition.
- Solve worksheets uploaded on the school website.
- Revise chapters 1,5,8,14 for periodic test I.

- **Work Sheet (Matter in Our Surroundings)**

- **A. Fill in the blanks:-**

- 1. Matter is made up of small \_\_\_\_\_.
- 2. \_\_\_\_\_ is the change of gaseous state directly to solid state without going through liquid state, and vice-versa.
- 3. Evaporation causes \_\_\_\_\_.
- 4. Latent heat of fusion is the amount of heat energy required to change 1 kg of solid into liquid at its \_\_\_\_\_.
- 5. The smell of perfume gradually spreads across a room due to \_\_\_\_\_.
- 6. Rapid evaporation depends on the \_\_\_\_\_ area exposed to atmosphere.
- 7. As the temperature of a system increases, the pressure of the gases \_\_\_\_\_.
- 8. As the volume of a specific amount of gas decreases, its pressure \_\_\_\_\_.
- 9. Gas molecules at higher temperatures have more \_\_\_\_\_ than at cooler temperatures.
- 10. Liquids that move quickly downhill are described as having \_\_\_\_\_.

- **B. True/ False:-**

- 1. Boiling is a surface phenomenon.
- 2. The rate of evaporation depends only on the surface area exposed to the atmosphere.
- 3. Latent heat of vaporization is the heat energy required to change 1 kg. of a liquid to gas at atmospheric pressure at its melting point..
- 4. Atoms in a liquid are farther apart than the atoms in a gas.
- 5. The molecules in a gas are in constant motion.
- 6. It is just as easy to compress a liquid, as it is to compress a gas.
- 7. Evaporation and boiling are the same processes because molecules move from a liquid to gaseous state.
- 8. If we pour liquid nitrogen(N<sub>2</sub>) into a glass, it will change its state to a solid.
- 9. A system that changes from a solid state to a liquid state gains energy.
- 10. Plasmas are all made of the same ions. They have different colours due to different amounts of electricity.

Solution

- **C. Answer the following questions-**

- 1. What are the two ways in which the physical state of matter can be changed?
- 2. Explain how gases can be liquefied?
- 3. What is sublimation? Give examples.
- 4. What produces more severe burns, boiling water or steam?
- 5. How can the boiling point of a liquid be raised, without adding any impurity?
- 6. Why does a summer rainstorm lower the temperature?
- 7. A drop of dettol got evenly distributed in water. How?
- 8. Liquid nitrogen is used as a commercial refrigerant to flash freeze foods. Nitrogen boils at -196°C. What is this temperature on the Kelvin temperature scale?
- 9. What property or properties of gases can you point to support the assumption that most of

the volume in a gas is empty space?

10. What is unit cell?

- 11. What is condensation? How is the condensation of a gas carried out?Solution

- 12. Why do solids not diffuse?

- 13. Convert the following Kelvin temperature to degrees Celsius.

a. 175 K

b. 295 K

c. 300 K

d. 225 K

14. Convert the following Celsius temperature to Kelvin temperature.

a. 25 °C

b. -15 °C

c. 0 °C

d. 3 °C

15. What is the physical state of water at the following temperatures?

(a) 25 °C

(b) 0 °C

(c) 100 °C

16. Why does the temperature of a substance remain constant during melting and boiling even when heat is being supplied to it continuously?

- 17. Explain the diffusion of copper sulphate into water.

18. Which state of matter is compressible? Why?

- 19. Why do the gases exert more pressure on the walls of the container than the solids?

- 20. Why is motor oil more viscous than water? Does motor oil have a greater surface tension than water.

21. Describe why a drop of food coloring in a glass of water slowly becomes evenly distributed without the need for stirring?

22. Liquid mix more slowly than gases. Why?

23. Define the following terms:

a. Melting point

b. Freezing point

c. Boiling point

**D. Multiple Choice Questions:**

- 1. The quantity of matter present in an object is called its:

a) Weight

b) Gram

c) Mass

d) Density

2. In which phenomena water changes into water vapour below its B.P.?

a) Evaporation

b) Condensation

c) Boiling

d) No such phenomena exist

3. The boiling point of water on Celsius and Kelvin scale respectively is:

a) 373, 273

b) 0, 273

c) 273, 373

d) 100, 373

**4.** The liquid which has the highest rate of evaporation is:

- a) Petrol
- b) Nail- polish remover
- c) Water
- d) Alcohol

**5.** When we put some crystals of potassium permanganate in a beaker containing water, we observe that after sometime whole water has turned pink. This is due to:

- a) Boiling
- b) Melting of potassium permanganate crystals
- c) Sublimation of crystals
- d) Diffusion

**6.** The state of matter which consists of super energetic particles in the form of ionized gases is called:

- a) Gaseous state
- b) Liquid state
- c) Bose- Einstein condensate
- d) Plasma state

**7.** The force that binds the particles of matter together is known as:

- a) Intermolecular space
- b) Bond
- c) Intermolecular force
- d) Nuclear force

**8.** What term is used to describe the phase change of a solid to a liquid?

- a) Freezing
- b) Melting
- c) Boiling
- d) None of the above

**9.** Which has the least energetic molecules?

- a) Solids
- b) Liquids
- c) Gases
- d) Plasmas

**10.** Select the one that is not a matter:

- a) Feeling of hot
- b) Smoke
- c) Humidity
- d) Water

**11.** Which one is a sublime substance?

- a) Table salt
- b) Sugar
- c) Iodine
- d) Potassium iodide

**12.** S. I. unit of temperature is:

- a) Celsius
- b) Fahrenheit
- c) Kelvin
- d) None of these

**13. What is Dry Ice?**

- a) Ice having no water or cry stallisation
- b) Ice that has been dried
- c) Solid carbon dioxide
- d) None of these

**14. The evaporation of a liquid can best be carried out in a:**

- a) Flask
- b) China dish
- c) Test tube
- d) Beaker

**15. Density of a substance is defined as**

- (a) ratio of mass and volume
- (b) product of mass and volume
- (c) ratio of mass and temperature
- (d) product of mass and temperature

## The Fundamental Unit of Life

### **Answer the following questions**

1. What is cell theory? Who formulated it?
2. Write the full form of DNA and ATP.
3. What is the importance of nucleus?
4. Explain the process of osmosis through an example.
5. Draw and label a Plant cell neatly.
6. Why is Plasma Membrane a selectively permeable membrane?
7. What is the function of chromosome?
8. Name the cleansing organelle in the cell.
9. How does amoeba consume food?
10. Name the cell organelle which is involved in the formation of lysosomes.
11. What is the shape of Nucleus?
- 12.What is Endosmosis?**
13. Who discovered Protoplasm?
14. The word cell was derived from a Greek word ----- which means small room.
- 15. Name the person who first coined the term “Cell”**
16. What will happen to a cell if its nucleus is removed?
17. Give 5 examples of single celled organisms.
18. The cell organelle which is commonly referred as the suicidal bags of the cell.
19. What is the Study of structure and composition of cell is called ?
20. What are the chromosomes made up of?

## Motion

1. Can the average speed of a moving object be zero? Why?

2. Give an example of a motion in which acceleration of an object is against the direction of motion.

3. A cyclist rides his cycle with a speed of 30 m/s for the first half and the next half-length he covers with a speed of 45 m/s. Find the average speed of the cyclist.

4. A body moving in a circle of radius ‘r’, covers  $\frac{3}{4}$ th of the circle. Find the ratio of the distance to displacement.

- 5.List the importance of velocity-time graph?
- 6.A train starting from rest attains a velocity of 20m/s in 2 minutes. Assuming that the acceleration is uniform, find (I) the acceleration (II) distance travelled by the train, while it attained this velocity.
- 7.How long will it take for a body accelerating by  $2 \text{ m/s}^2$  to gain a velocity of 10 m/s, starting from rest?
- 8.Write and derive the equations of motion involving uniform acceleration.
- 9.Define a vector quantity giving examples.
- 10.The brakes applied to a car produce a negative acceleration of  $10 \text{ m/s}^2$ . If the car takes 5 s to stop after applying brakes, calculate the distance covered by the car before coming to rest.
- 11.Draw a velocity-time graphs for the following (a) A body moving with a uniform acceleration.  
(b) Uniform retardation (c) Zero acceleration.
- 12.Name a physical quantity that (i) varies (ii) remains same in a uniform circular motion.

## **Social Science**

1. Every student has to compulsorily undertake *one project on Disaster Management*  
It should include:causes, after effects and preparedness before a disaster
2. Learn PT 1 syllabus

## **IT**

- Page 1) Create business/ Visiting cards using shapes, text and colors and use page border option on the page.
- Page 2) Use Smart Art to show Oxygen Cycle in environment and format the smart Art.
- Page 3) Create a sample index page from any of your book i.e. IT, Science, S.St., Maths etc.
- Page 4) Take a double column book or newspaper and design or create similar paragraph style in the word document.
- Page 5) Create a page with all mathematical formulas like square, cubes and volume and surface area etc.

## **Art & Craft**

1. \*Make a rangoli cutout.
2. \*Make one item from cement hacks.