

**DAV PUBLIC SCHOOL, EAST OF LONI ROAD  
HOLIDAYS HOMEWORK (2018-2019)  
CLASS IX**

The much awaited summer vacations have arrived and yes! We have decided to give very little homework so that you have more time to spend on things which you really like , such as hobbies, reading , playing & so many more of them.

So relax & enjoy!

**ENGLISH**

1. Below you can see a set of instructions for making Halva, with the help of these instructions complete the paragraph.

- a) Take suji, sugar and ghee.
- b) Fry suji in ghee till it turns brownish.
- c) Prepare syrup by boiling a mixture of water and sugar.
- d) Add syrup to suji.
- e) Stir the whole thing briskly till it becomes a thick paste.
- f) Add almonds, coconut and kishmish.

It is an art to prepare really good Halva. Suji, sugar and ghee (a).....(b)..... till it turns brownish. A mixture of water and sugar (c)..... to prepare syrup. Syrup (d)..... The whole thing (e) ..... till it becomes a thick paste. To make it more tasty and nourishing (f) ..... . Now halva is ready to serve.

2. Below you can see a set of instructions for repairing a fused wire. Imagine that you have completed this procedure. Complete the following paragraph describing what you did.

- a) Switch off the electricity supply from the main switch.
- b) Take out the cut out from the grip and remove the fused wire.
- c) Fix 1 end of the fresh fuse wire.
- d) Put the cut out in its proper position.
- e) Switch on the main switch.

The electricity supply was switched off from the main switch. The cut out (a) .....from the grip and fused wire(b) ..... One end of fresh fuse wire (c) ..... with the help of a screw . Then the cut out(d).....in its proper position and finally the main switch(e).....to function properly.

3. Below is given a set of instructions on preparation of instant coffee. Using the information fill in the blanks.

- a) Boil water.
- b) Take one teaspoon each of instant coffee and sugar.
- c) Add boiling water and stir the mixture vigorously.
- d) Warm milk separately.
- e) Add warm milk to mixture to stir.
- f) Hot instant coffee is ready to drink

- First water is boiled. Then a teaspoon of instant coffee and one teaspoon of sugar (a) ..... The boiling water (b) ..... and the mixture (c) ..... milk (d) ..... warm milk (e) ..... And it is stirred. Hot instant coffee is ready to drink
4. Injuries and deaths taking place due to underage driving are being reported almost everyday. Write a letter to the commissioner of traffic police asking him to be very strict in such cases and also take necessary steps to stop this practice. You are Abha/Abhinav, P-37, Suman apartments, New Delhi.
5. You have recently visited the 'world book fair' organized at Pragati Maidan and found it quite an enriching experience. Write a report in about 80-100 words so as to encourage other students to visit it.
6. You attended a fair of Eco Clubs at Bhal Bhawan where the students from different schools displayed Eco friendly materials and ways to protect our earth through different models and charts. Write a diary page to recall your memory of the same in 120-150 words.
7. Write the incorrect word in your answer sheet as given below and the word you have supplied.

	Incorrect	Correct
Surprisingly, several studies has reported that a vast majority of people suffer with vitamin D deficiency even in sun India.	has	have
(a) .....	.....	.....
(b) .....	.....	.....
An average office goer get no sun. Also the skin of other people is less efficient at converting vitamin D from sunlight in its activity form and they need supplements to get his need 400 to 600 international units for vitamin D per day.	(c) .....	.....
(d) .....	.....	.....
(e) .....	.....	.....
(f) .....	.....	.....
(g) .....	.....	.....
(h) .....	.....	.....

8. Pick up 2 new words, 1 idiom and 1 expression based phrase from your English literature and compose either a story or a poem on any one theme mentioned below: Nature, Patriotism, Any social evil, Sports, Childhood, Family, Science

## **SCIENCE**

### **Physics**

1 Revise the chapter MOTION.

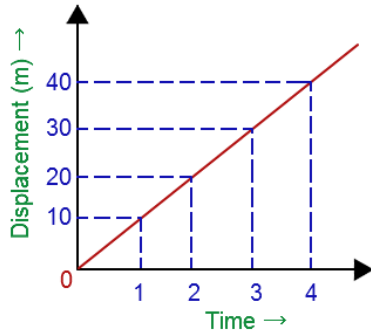
ACTIVITY: Take a meter scale and long rope.

- Walk from one corner of your verandah to its opposite corner along its side.
- Measure the distance covered by you and magnitude of the displacement.
- What difference would you notice between the two cases?

Note your recordings and submit.

## Work sheet

1 What does the graph below represent ?



2. Draw a distance time graph of an object moving in non uniform motion.
3. Derive third equation of motion graphically.
4. State with example situation when an object is with a constant acceleration but zero velocity.
5. What is the quantity which is measured by area occupied below the velocity -time graph.?
6. How is speed different from velocity?
7. When do we say body is in motion?
8. Calculate the distance and displacement of an athlete's going around a circular path of radius 100m and completing 2 rounds.
9. a train is travelling at a speed of 90 km/h .brakes are applied so to produce a uniform acceleration of  $-0.5\text{m}/\text{second}$  .find how far the train will go before it is brought to rest.
- 10 .A car accelerates uniformly from 18 km/h to 36 km/h in 5sec calculate the acceleration and distance covered by the car in that time.

## BIOLOGY

General Instructions:

- Submit all your work in a proper folder.
- Creativity And Originality Of The Work Will Be Appreciated.
- Practice the questions related to chapter 5 of the book.
- Do the following worksheet neatly on A4 size sheets.
- Make the plant cell and animal cell using waste material .

## Chapter – 5

The fundamental unit of life

Q1) Fill in the blanks:-

1. \_\_\_\_\_ and \_\_\_\_\_ are the examples of unicellular and multicellular organisms.
2. \_\_\_\_\_ is the structural and functional unit of life.

3. Plasma membrane is made up of \_\_\_\_\_ and \_\_\_\_\_.
4. Organisms with primitive nucleus are called as \_\_\_\_\_ while the organisms with well defined nucleus are called as \_\_\_\_\_.
5. The function of SER is to synthesis \_\_\_\_\_ while that of RER is to synthesis \_\_\_\_\_.
6. The jelly like content of the cell enclosed by the plasma membrane is \_\_\_\_\_.
7. \_\_\_\_\_ is the waste disposal system of the cell.
8. \_\_\_\_\_ is the power house of the cell.
9. \_\_\_\_\_ is the kitchen of the cell.
10. Mostly vacuoles are \_\_\_\_\_ sized in animal cells while plant cells have \_\_\_\_\_ vacuoles.

Q2) Name the organelle that contain genetic material.

Q3) Why are lysosomes called as suicidal bags?

Q4) Name the three types of plastids and the functions they perform.

Q5) Expand : RER , SER , DNA , ATP , ER

Q6) Shape and size of cells are related to the function they perform. Explain with example.

Q7) A special process helps in the intake of oxygen inside the cells and release of carbon dioxide from the cells . name the process.

Q8) Define osmosis and plasmolysis.

Q9) Amoeba is able to engulf its food due to the flexibility of the cell membrane . what is this process called as?

Q10) Egg membranes from three eggs were carefully taken out and labeled as A, B and C. each of these membranes were filled with 1% solution of sugar . membrane A was immersed in 0.5 % sugar solution , membrane b was immersed in 1 % sugar solution and membrane C was immersed in 2% sugar solution . predict the behavior of the three membranes.

Q11) Give the functions of the following:

- a) Cell wall
- b) Cell membrane
- c) Nucleus
- d) Mitochondria
- e) Golgi apparatus
- f) Lysosomes
- g) Plastids
- h) SER
- i) RER
- j) RIBOSOMES

Q12) State the similarity between mitochondria and plastids.

Q13) Name the substances stored in vacuole.

Q14) What is the percentage of plant cell volume does the central vacuole occupy?

Q15) Complete the

following table:

Organelle

Plant/Animal/Both

Function

Cytoplasm

Vacuole  
Ribosome  
Rough ER  
Smooth ER  
Central Vacuole  
Nucleus  
Nucleolus  
Nuclear membrane  
Centrosome

CH- Matter in our surrounding

1.If the humidity in the air increase then the rate of evaporation:-

- (a) decrease                      (b) increase  
(c) remain same                (d) both (b) and (a) depending upon the temperature

2. Which of the following statement is correct?

- (a) boiling is a bulk phenomenon and evaporation is a surface phenomenon  
(b) boiling is a surface phenomenon and evaporation is a bulk phenomenon  
(c) boiling and evaporation both are surface phenomenon  
(d) boiling and surface both are bulk phenomenon

3. If the temperature of a place is increase then evaporation:-

- (a) decrease                      (b) increase  
(c) remain same                (d) none of the above

4. Which of the following have least inter atomic spacing?

- (a) solid                              (b) liquid                      (c) gases                      (d) plasma

5. What happen when we apply pressure to the particles of matter?

6. If the melting point of an object A is high then what state you expect it to be at room temperature?

7. Are the three state of matter inter-convertible? How can they interconnect?

13. A solution of H<sub>2</sub>SO<sub>4</sub> is labeled 40%. The density of the solution is 1.3gm/l. what is the concentration of the solution in % (m/v)?

14. What happens when the temperature of the solids increase?

15. When heat is being supplied to a solid, then what does the heat energy do to the particles of solid?

16. Why do we see water droplets collected on the outer surface of a glass container, containing ice?

17. Explain why solids have fixed shape but liquids and gases do not have fixed shape.

18. Why is it advisable to use pressure cooker at higher altitudes?

19. What are fluids?

20. Why is water liquid at room temperature?
21. Cotton is solid but it floats on water. Why?
22. Why are solids generally denser than liquids and gases?
23. Name the factors that affect evaporation.
24. How is the high compressibility property of gas useful to us?
25. With the help of an example, explain how diffusion of gases in water is essential?
26. On a hot sunny day, why do people sprinkle water on the roof or open ground?
27. Why do people perspire a lot on a hot humid day?
28. A balloon when kept in sun, bursts after some time. Why?
29. Pressure and temperature determine the state of a substance. Explain this in detail.
30. Explain giving examples the various factors on which rate of evaporation depends.

## MATHEMATICS

Do the following activities in LAB MANUAL file.

Activity 1- To construct a square root spiral

Activity 2- By paper cutting and pasting, verify if two lines intersect each other then vertically opposite angles are equal.

Activity 3 - By paper cutting and pasting, verify that the sum of interior angles of a triangle is 180 degrees.

Do the following worksheet in ASSIGNMENT register

Q1. Find four rational numbers between  $\frac{-2}{3}$  and  $\frac{3}{2}$ .

Q2. Represent  $\sqrt{13}$  on the number line.

Q3. Express the following in the form of  $\frac{p}{q}$ , where p and q are integers and  $q \neq 0$ .

i. 0.235 \_\_\_\_\_

ii. 15.712121212.....

Q4. Find one irrational number 2015 and 2016.

Q5. If  $x = 2 + \sqrt{3}$ , find the value of  $x^2 + \frac{1}{x^2}$ .

Q6. Evaluate after rationalizing the denominator of  $\frac{25}{\sqrt{40} - \sqrt{80}}$ , it is given that  $\sqrt{5} = 2.236$  and

$\sqrt{10} = 3.162$ .

Q7. Evaluate:

$$\frac{7\sqrt{3}}{\sqrt{10} + \sqrt{3}} - \frac{3\sqrt{2}}{\sqrt{15} + 3\sqrt{2}} - \frac{2\sqrt{5}}{\sqrt{6} + \sqrt{5}}$$

Q8. Simplify:

$$\left[ \left[ 5 \left\{ \left( \frac{1}{8} \right)^{\frac{-1}{3}} + \left( \frac{1}{27} \right)^{\frac{-1}{3}} \right\} \right]^2 \right]^{\frac{1}{4}}$$

Q9. Write the degree of the polynomial  $\sqrt{3}$ .

Q10. Find the value of k, for which the polynomial  $x^3 - 3x^2 + 3x + k$  has 3 as its zero.

Q11. If the polynomial  $p(x) = x^4 - 2x^3 + 3x^2 - ax + 8$  is divided by  $x - 2$ , it leaves a remainder 10. Find the value of a.

Q12. Divide  $3x^3 - 8x^2 + 3x + 2$  by  $x^2 - 3x + 2$  and verify the division algorithm.

Q13. Factorize

- i.  $4a^2 - 9b^2 - 2a - 3b$ .
- ii.  $x + 3\sqrt{x} + 4$
- iii.  $(x + 2)^2 + p^2 + 2p(x + 2)$

Q14. If  $x^2 + \frac{1}{x^2} = 79$ , find the value of  $x + \frac{1}{x}$ .

Q15. Evaluate  $106 \times 94$  by using suitable identity.

Q16. If  $a^2 + b^2 + c^2 = 250$  and  $bc + ca = 3$ , find  $a + b + c$ .

Q17. In which quadrant or axis do these points (6,5), and (-3,5)

Q18. Plot the points P(-1, 0), Q(-1,1) and R(2,3) on the graph paper and check whether they are collinear or not.

Q19. Plot the points P(1,0), Q(4,0) and S(1,3). Find the co-ordinates of the point R such that PQRS is a square. Also, find the area of the square.

Q20. Locate and write the coordinates of a point:

- a. above x-axis lying on y-axis at a distance of 5 units from origin.
- b. below x-axis lying on y-axis at a distance of 3 units from origin.
- c. lying on x-axis to the right of origin at a distance of 4 units.
- d. lying on x-axis to the left of origin at a distance of 2 units.

Q21. Find a and b so that

$$i) \frac{5+2\sqrt{3}}{7+4\sqrt{3}} = a + b\sqrt{3}$$

$$ii) \frac{\sqrt{7}-1-\sqrt{7}+1}{\sqrt{7}+1-\sqrt{7}-1} = a + b\sqrt{7}$$

$$iii) \frac{\sqrt{11}-\sqrt{7}}{\sqrt{11}+\sqrt{7}} = a - b\sqrt{77}$$

Q22. If  $x = \frac{\sqrt{3}+1}{2}$ , find the value of  $4x^3+2x^2-8x+7$ .

Q23. If p and q are remainders when the polynomials  $x^3+2x^2-5ax-7$  and  $x^3+ax^2-12x+6$  are divided by  $(x+1)$  and  $(x-1)$  respectively and if  $2p+q=6$  find the value of a.

Q24. Find the value of b if  $x^3-bx^2+3bx-b$  is exactly divisible by  $(x-3)$ .

Q25. Factorise  $3\sqrt{3}a^3-b^3-5\sqrt{5}c^3-3\sqrt{15}abc$ .

## **SOCIAL SCIENCE**

A) DISASTER MANAGEMENT has become a very important subject under social studies. The awareness of vulnerable areas and the mitigation policies always help you to take preventive measures to survive the situation. Keeping this in mind, class 9, will. Collect information and material on the topics of Disaster Management (discussed in the class) which will culminate into a model to be done in the school after vacations.

The topics are:

- a. Earthquake
- b. Floods
- c. Cyclone

- d.Landslides
- e.Drought

### POLITICAL SCIENCE

B) Analyse the election propaganda in the state of Karnataka held in may 2018  
Mention previous ruling party/parties , name of winning party, and name of the present Chief minister. do this in your political science fair notebook.

### ECONOMICS

C) Revise the syllabus covered.

D) Suppose you are working in the small cottage industry of Palampur, design a product which you think can be produced in these industries---it will be from best out of waste or from simple material like jewellery from paper quilling, hand made products, earthen pots, juices, paper products etc. These products will be displayed in the exhibition /ptm in the school.

E) Paste 5 cuttings related to e schemes started by government for the development of Indian villages.

### HISTORY

1. Revise the chapter 'French Revolution'
2. Choose any five symbols related to French revolution and make flash cards.
3. Collect information about the chosen symbols and write about them in the flash card along with the pictures.

Instruction (i) The flash cards must contain at least 5 symbols.

(ii) Paste or draw colorful pictures.

(iii) Use your creativity in making flash cards.

(iv) Adequate information has to be added with the pictures.

### ART

Topic-Swath Ganga

(Size A-3 Ivory Sheet) Note:-Submit your Holidays Homework in a presentable manner as per the nature of the work e.g. a work which is two dimensional should be properly laminated) with name slip.

Use bright colors composition with related slogan 'Reflecting Positive message for our Society'

Browse internet and collect innovative ideas. This will stimulate your imagination.

### COMPUTER APPLICATIONS

Make a presentation on topic : (min 5 slides)

Famous IT personalities (R.No. 1 to 10)

Social Networking Sites (R.No. 11 to 20)

Generations of Computers(R.No. 21 to 30)



Cloud Computing (R.No 31 to 40)  
Mobile Operating (R.No. 41 onwards)

## हिन्दी

निर्देश- ग्रीष्मावकाश कार्य स्वच्छता से तथा अलग से छोटी कार्य पुस्तिका में करें।

1.छः पृष्ठ सुलेख लिखिए ।

2.दो आकर्षक विज्ञापन बनाइए- (ए 3 साइज शीट में )

क) स्वस्थ जीवन शैली ख) सड़क सुरक्षा जीवन रक्षा

ग) भारत का क्षृंगार- हिंदी

3.दिए गए विषयों में से किन्हीं दो विषयों में अनुच्छेद लिखिए -

1.बड़ी लुभावनी विज्ञापन की दुनिया ग) उफ ! ये गर्मी

2.अभ्यास का महत्व घ) पर्वतीय स्थल की यात्रा

4.एक बकरी और गाय के बीच संवाद लिखिए |(ए 4 साइज शीट में )

5.हकीकत फिल्म देखिए तथा उसमें निहित संदेश लिखिए ।

6.साहित्यिक परिचय लिखिए - (ए 4 साइज शीट में )

यशपाल , रैदास , शरद जोशी , गणेशशंकर विद्यार्थी

7. शरद जोशी की कोई एक व्यंग्य रचना पढ़िए तथा उसमें निहित व्यंग्य लिखिए ।

8. कक्षा में करवाए गए कार्य की पुनरावृत्ति करें ।