

## Summer vacation home work of class 9

### Subject- Maths

1. To represent irrational number  $\sqrt{2}$  on the number line. ( Materials Required- A sheet of white paper, pencil, compass, eraser and ruler )

2. Make a square root spiral by using paper folding. ( Materials Required- Tracing paper, pencil, geometry box)

3. Verify the identity  $(a + b)^2 = a^2 + 2ab + b^2$  by paper cutting and pasting. [Materials Required

A sheet of white paper, three sheets of glazed paper (different colours), a pair of scissors, gluestick and a geometry box.]

4. Verify the identity  $(a - b)^2 = (a^2 - 2ab + b^2)$  by paper cutting and pasting.

[Materials Required

A white sheet of paper, glazed papers, a pair of scissors, geometry box, gluestick ]

### Subject - science

#### Physics

Question- Explanation should be given by using graphs and figures. Formula must be written with usual standard notations in the form of ' Project or Activities or Power Point Presentation' .Only two representation to be done.

Project 1- Graphical Presentation of uniformly accelerated motion by following graphs

(i) Displacement Vs Time

(ii) Velocity Vs Time

(iii) Acceleration Vs Time

Project 2- Derivation of equations of motion in PPT form

Project 3- Mind Mapping of Newton's Laws of Motion

#### Chemistry

I. Draw 3D Charts on any one of the following topics: Fractional distillation , Chromatography , Sublimation , Evaporation , Separation funnel , Distillation.

II. Answer the following questions:

1. Why do the doctors advise to put strips of wet cloth on forehead of a person having high fever?

2. The melting points of three solids X,Y,Z are 298K, 314K and 398K, respectively .Arrange these in increasing order of their inter-particle force of attraction.
3. Why do we feel comfortable under a fan when we are perspiring?
4. Why do solids have a regular geometrical shape?
5. Water as ice has cooling effect , whereas water as steam may cause severe burns. Explain these observations.
6. How does evaporation differ from boiling?
7. Why do we see water droplets on the outer surface of a glass containing ice cold water?
8. When 50g of sugar is dissolved in 100 m L of water ,there is no increase in volume .What characteristic of matter is illustrated by this observation?
9. Why do wet clothes dry quickly in sun than in shade?
10. Describe an activity to determine the boiling point of water.

### Biology

1. Read chapter tissues and make 80MCQs from the chapter.
- Q2. Draw different type of tissues also write their location and functions.
- Q3. Name the following:
  - A. Who is known as father of biology?
  - B. Who discovered cell and nucleus?
  - C. Who gave the term protoplasm?
  - D. Who proposed cell theory?
  - E. Study of cell is called
  - F. Who coined the term chromosomes?
  - G. Who proposed fluid mosaic model of plasma membrane?
  - H. Study of tissues is called
- Q4. On the basis of tissues differentiate between blood and lymph.

Subject - SST

TOPIC OF THE PROJECT - OUTBREAK OF COVID19 IN INDIA

GUIDELINES FOR SUBMITTING THE PROJECT

1. Use A4 size sheets
2. It should be a hand written project (blue or black pen should be used)
3. You can use newspaper clippings, maps, diagrams and material from the web
4. Each illustration should be supported with a write up/relevance to the topic

5. The cover page should be written in bold letters with the topic, name and roll number Follow the sequence of pages as given below:

Acknowledgement

Index

Define COVID 19 (describe in 2 pages with illustrations)\*

Causes of COVID19 (Illustrations)\*

Extent of damage

Who is responsible(illustrations)\*

Steps taken by the Govt. to combat COVID19(illustrations)\*

Organisations working to help the people most affected by the outbreak(illustrations)\*

Lessons learnt(illustrations)\*

Bibliography

\*Maps, pictures, graphs, etc.

6. Use hard bound cover pocket file or get your project spiral bound.

Subject - English

(1) Design your own newspaper

How to do :- The newspaper should have following sections

1. Facts and figures of English language
2. Creative Corner- Your classroom poetry or story
3. Quotes- By famous poets with their names
4. Entertainment
5. Games & Puzzle- based on tenses, verbs, prepositions or conjunctions.

(Any one)

For example -Snakes & Ladder on prepositions.

Where to do :-A3 Size sheets (Min. 5 pages)

Parameters for Assessment:- Quality of content, originality and presentation

2) Read any one novel of your choice and write the review.

How to do :- The review is to be written in 250-300 words keeping in mind the given aspects:

- About the Writer
- Summary
- Favourite character
- Analysis

Where to do:- A4 Size sheets

Parameters for Assessment:- Content, language and accuracy

Subject- Hindi

निम्नलिखित पाठ्यपत्रों में से 12 व 16 पाठ्यपत्रों में से एक पर निम्नलिखित  
प्रश्नों का उत्तर दीजिए -

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