

# SUMMER HOLIDAY HOMEWORK

Prepared By: 

Name: \_\_\_\_\_

Class: \_\_\_\_\_

Section: \_\_\_\_\_

- Learn
- Explore
- Enjoy

Submitted To:

V R SENIOR SECONDARY SCHOOL



## **INSTRUCTIONS FOR THE PARENTS**

Dear parents,

Warm greetings!

Holidays are time when you can connect with your child in many ways. Parents are the first and the most important teacher for a child. You can encourage your child to participate in many educational activities at home and promote his/her quests to learn while working together as it will not only help your child to build, learn and develop his/her skills but also strengthen your bond with him/her .

Homework has to be done under the parents' guidance. Make him/her read daily one or two pages from their books. Don't miss to take your child outdoors in the evening.

Fix up a timetable for your child to organize his/her daily routine like watching television, mobile surfing for information, playing with friends, studying, etc. Dictate them whatever they have read or written.

Make your child responsible by assigning some of the household responsibilities like watering plants, arranging the dining table, organize their room and fill the empty water bottles and put them in refrigerator.

Encourage your child to eat healthy food, avoid eating junk food, wear clean clothes, wash hands before and after every meal, trim their nails. Let them play and share their stories with their grandparents.

Above mentioned guidelines will help your child to become a smart and an active learner.

## **INSTRUCTIONS FOR THE STUDENTS**

1. Get up early in the morning.
2. Wish your parents, grandparents and elders.
3. Pray to God daily.
4. Exercise everyday.
5. Brush your teeth twice a day in the morning and before bedtime.
6. Stay clean and healthy.
7. Do not play in the sunshine or at hot places.
8. Keep some water and food for birds.
9. Help the poor by giving them food, clothes or money.
10. Wash your hands with soap.
11. Do not waste water and electricity .
12. Do your vacation work by yourself.
13. Writing should be very neat and clean.
14. Try to do your written work regularly to enhance your writing skill.
15. Do one page of your English and Hindi writing books once a week.
16. Read your chapters loudly.

**NOTE- Homework should be done neatly on a separate notebook.**

## CLASS IX

### ENGLISH HOLIDAY HOMEWORK

- **Reading Section:** Practice Question no. 1,2, 3, 4,5 ( From Page No. 5 to 10) in your Practice Book.
- **Writing Section:** Practice Question no. 1, 2, 3 ( From Page No. 35 and 36) in your Practice Book

Question no. 1 and 2 ( From Page No. 48 and 49)

Question no. 1 and 2( From Page No. 67 and 68)

- **Grammar Section:** Complete Page no. 153,154, 164, 165, 170, 171.
- **Literature Section :** Complete the exercises of Chapter 1 How I Taught My Grandmother to Read( Pg. no. 213-217) and Poem 1 Bharat Our Land ( Pg. no. 251- 253)
- Read the Chapter 2 The Pot Maker and the Poem 2 Gifts of Grace: Honouring Our Vocations.

#### **Do as instructed in your notebook**

- i. Write an biography on Temsula Ao
- ii. Write short note on : ( Any 2) Khurja pottery, Blue Pottery, Terracotta Pottery, Andretta pottery, Karigari pottery, Longpai Black pottery.
- iii. Collect information about a vocation of your choice and prepare a PPT on it ( 5 slides ).
  - Nature and Scope of the vocation
  - Challenges in the Vocation
  - Minimum Qualifications and Skills required
  - Prominent People Associated with the Vocation.



# ग्रीष्मकालीन गृह-कार्य

कक्षा - IX

विषय - हिन्दी

- 1- मुंशी प्रेमचन्द की किसी एक कहानी का सार अपने शब्दों में लिखिए। (लगभग 100-120 शब्दों में)
- 2- दस पेज का इमला लिखिए।
- 3- "आधुनिक जीवन पर 'ए. आई.' का प्रभाव" विषय पर 100-120 शब्दों में अनुच्छेद लिखिए।
- 4- गंगा खण्ड - 'ख' पाठ - 2 'शम-लक्ष्मण परशुराम संवाद' को ध्यानपूर्वक पढ़िए और उसका भावार्थ लिखने का प्रयास कीजिए।
- 5- गंगा खण्ड - 'क' पाठ - 2 'क्या लिखें?' को ध्यानपूर्वक पढ़िए और उसके प्रश्नोंत्तर लिखने का प्रयास कीजिए।
- 6- व्याकरण प्रवाह पूरक पाठ्यपुस्तक में दिए गए संज्ञा, सर्वनाम, विशेषण और क्रिया से सम्बन्धित अभ्यास कार्य पूर्ण कीजिए।
- 7- उपसर्ग, प्रत्यय और समास का अभ्यास कार्य अपनी व्याकरण पुस्तक में पूर्ण कीजिए।
- 8- 'रैदास' या 'तुलसीदास' के जीवन पर एक परियोजना (Project) तैयार कीजिए।

...X—X—X—X...

## Class: IX Mathematics

**Note:- All Questions are compulsory.**

**Q1. Learn and write algebraic identities. Also, solve the following questions using these identities:**

a)  $(3a + 3)^2$

b)  $(9p + 5)^3$

c)  $(z - 3)^2$

d)  $(5 - 2z)^3$

e)  $(\frac{7x}{2} - 2)^3$

f)  $(\frac{z}{2} - \frac{3}{5} + p)^2$

**Q2. Represent the number system with the help of flow chart in your notebook and explain each type.**

**Q3. Draw the figure and write down the formulae of C.S.A., T.S.A., volume of the following shapes:**

a) Cube

b) Cuboid

c) Cylinder

d) Sphere

e) Cone

f) Hemisphere

**Q4. The following table shows the coordinates of points S, M and T. In each case, State whether M is the mid-point of segment ST. Justify your answer.**

S	M	T	Is M is the mid-point of ST? Yes or No	Reason for your answer
(-3, 0)	(0, 0)	(3, 0)		
(2, 3)	(3, 4)	(4, 5)		
(0, 0)	(0, 5)	(0, -10)		
(-8, 7)	(0, -2)	(6, -3)		

**Q5. Learn and write 4-gons (Quadrilateral). Type of quadrilateral with their properties with figure.**

**ACTIVITY 1.** Write any 20 numbers you observe at home or outside, such as mobile numbers, vehicle number, electricity bill number, price of any item, house number etc. Now classify them into type of number. (For example - natural, whole, integer, decimal etc).

**ACTIVITY 2:** Draw a simple map of your room on a graph paper.

- Take one corner as origin (0, 0)
- Mark position of your bed, Table chair, Door window etc. (Any 5)
- Write coordinates of each object. (Hint- NCERT ex 1.2 as hint)

**ACTIVITY 3:** Firstly, measure the length and breadth of study table, bed and your garden. Now, find its perimeter and area using suitable formulae.

**ACTIVITY 4:** A family with a monthly income of Rs. 20,000 had planned the following expenditures per month under various heads:

Heads	Expenditure (in thousands rupees)
Grocery	
Rent	
Education of children	
Medicine	
Fuel	
Entertainment	
Miscellaneous	

- Write all the expenditure of your house with the given budget.
- Prepare a tally table.
- Draw the bar of this expenditure.

## Class-IX Subject- Physics

### Chapter 8: Motion

#### Competency Based / Case Study:

1. **Case:** Riya cycles to school. Her speed-time graph is shown below: 0-5 min speed increases from 0 to 4 m/s, 5-15 min constant 4 m/s, 15-20 min decreases to 0 m/s.

- a) In which time interval was the motion non-uniform? Why?
- b) Calculate total distance covered by Riya.
- c) What was her acceleration in first 5 minutes?

2. **Reasoning:** Two cars A and B start from the same point. Car A moves with uniform velocity 60 km/h. Car B starts from rest and accelerates at  $2 \text{ m/s}^2$ .

- a) After how much time will their velocities be equal?
- b) Can Car B overtake Car A? Justify with calculations.

#### Activity Based:

3. Use your phone's stopwatch. Walk 10 meters in your home at normal speed. Note the time. Now run the same 10 meters and note time.

- a) Calculate your speed in both cases.
- b) Plot a distance-time graph for both cases on same paper. What difference do you see?
- c) Which motion was closer to uniform motion?

4. Take a toy car. Give it a push on the floor and measure distance covered every 2 seconds till it stops.

- a) Make a table of time vs distance.
- b) Is this uniform or non-uniform motion? Explain using your data.
- c) What force made the toy car stop?

### Chapter 9: Force and Laws of Motion

#### Competency Based / Case Study:

5. **Case:** A fielder pulls his hands backward while catching a fast cricket ball.

- a) Which Newton's law explains this? State the law.
- b) What happens if he keeps hands stiff? Explain in terms of force and time.
- c) Give 2 more daily life examples where we increase time to reduce impact force.

6. **Reasoning:** A truck and a bicycle are moving with same velocity. Both drivers apply brakes and they stop in same distance.

- a) Which vehicle has more momentum initially? Why?
- b) On which vehicle was more braking force applied? Use  $F = \text{change in momentum} / \text{time}$ .
- c) If brakes failed, which one would be harder to stop and why?

#### Activity Based:

7. Take a glass and a postcard. Put the postcard on the glass and a coin on the postcard. Flick the postcard quickly.

- a) What happens to the coin? Why does it fall into the glass?
- b) Which property of matter is demonstrated here? Define it.
- c) What would happen if you flick the postcard slowly?

8. Tie a stone to a string and whirl it in a circle. Then let go of the string.

- a) In which direction does the stone fly off? Draw it.
- b) Which law of motion explains this?
- c) What force was acting on the stone when you were whirling it? What happened when you released

## Subject: Chemistry

### Section A – Activity Based Learning

#### Activity 1: Kitchen Mixture Investigation

Observe different mixtures available at home and identify their type.

Mixture	Components	Homogeneous/heterogeneous	Mode of separation
Tea			
Salt water			
Sand and iron filings			

#### Activity 2: Model Making Activity

Make Any One Model:

##### Option A: Natural Water Filter Model

Materials Required:

- Plastic bottle
- Cotton
- Sand
- Gravel
- Charcoal
- Dirty water

Procedure:

1. Cut the plastic bottle from the middle.
2. Arrange cotton, charcoal, sand, and gravel in layers.
3. Pour dirty water slowly.
4. Observe the filtered water collected below.

Write in Notebook:

- Which impurities were removed?
- Is the water completely pure? Why?

##### Option B: Atom Model

Make a 3D model of an atom using clay, thermocol balls, paper, or waste materials.

Choose Any One:

- Hydrogen atom
- Helium atom
- Carbon atom

Label the Following Parts:

- Proton
- Neutron
- Electron
- Nucleus

### Section B – Competency Based Questions

Q1. Why is filtration not suitable for separating salt from salt water?

Q2. A student accidentally mixes iron nails, sand, and salt. Explain step-by-step how all three substances can be separated.

Q3. Why do we use sieving in flour mills but not for separating sugar from water?

Q4. A muddy water sample becomes clear after sedimentation and decantation. Explain what actually happens during this process.

Q5. Why are electrons unable to stay inside the nucleus although they are attracted by protons?

Q6. Differentiate between proton, neutron, and electron on the basis of Charge, Position, and Mass.

Particle	Charge	Position	Relative Mass
Proton			
Neutron			
Electron			

Q7. If an atom has 11 protons, 12 neutrons, and 11 electrons, find:

1. Atomic number
2. Mass number
3. Name of the element

Q8. HOTS Question: Why is an atom electrically neutral even though it contains charged particles?

### Section C – Case Study Based Question

Riya was helping her mother in the kitchen. She noticed that tea was first filtered before serving. Later, she saw her brother separating iron pins from sand using a magnet. In science class, she also learned that atoms contain tiny charged particles called protons, neutrons, and electrons.

Answer the Following Questions:

1. Which method is used to separate tea leaves from tea?
2. Why can a magnet separate iron pins from sand?
3. Which subatomic particle carries a negative charge?
4. Name the central part of an atom where protons and neutrons are present.
5. Which separation method would you use to obtain salt from salt water?

### Submission Guidelines

- Complete work in neat handwriting.
- Draw labelled diagrams wherever required.
- Use colored pens/pencils for headings and diagrams.
- Submit homework after summer vacation in a decorated file.

## Class IX Biology

### Instructions

- Write all answers neatly in your biology notebook.
- Draw labelled diagrams wherever required.
- Use colors and creativity in activity work.
- Try to observe things around you and connect them with science.

### Section A – Competency Based Questions

#### Q1. Kitchen Science Activity

Observe an onion peel and a leaf under sunlight carefully.

1. Why do onion cells appear colourless while leaf cells appear green?
2. Which cell organelle is responsible for the green colour?
3. What would happen if leaf cells did not contain this organelle?

#### Q2. Real Life Observation

Your skin gets healed after a cut within a few days.

1. Which characteristic of cells helps in healing?
2. Why are cells called the structural and functional units of life?
3. Name the process involved in forming new cells.

#### Q3. Comparison Skill

A student observed plant cells and animal cells under a microscope.

Complete the comparison table in your notebook.

Feature	Plant Cell	Animal Cell
Cell Wall		
Shape		
Vacuole		
Plastids		
Nucleus Position		

Then answer: Why do plant cells usually have a fixed shape?

#### Q4. Application Based Question

Raisins were kept in plain water overnight and became swollen.

1. Name the process responsible for this change.
2. Why did the raisins swell?
3. What would happen if raisins were placed in concentrated salt solution?

#### Q5. Scientific Reasoning

A teacher said, “The nucleus is the brain of the cell.”

Justify the statement with any three points.

#### Q6. Case Study Based Question

Rohan kept a potted plant in a dark room for several days. The leaves slowly turned yellow.

1. Which cell organelle was affected?
2. Why did the leaves lose their green colour?
3. How does this affect food preparation in plants?

### Section B – Activity Based Homework

#### Activity 1 – Make a 3D Cell Model

Create a 3D model of either a plant cell or animal cell using clay, cardboard, thermocol, jelly, or waste material.

Include and label: Cell membrane, Cytoplasm, Nucleus, Vacuole, Mitochondria, Chloroplast (for plant cell).

Write 5 functions of the parts used.

### **Activity 2 – Herbarium File Activity**

Prepare a herbarium file by collecting and pasting 10 different types of leaves.

For each leaf, write:

- Common name of the plant
- Scientific name (if possible)
- Colour and texture of the leaf
- One important use of the plant

Instructions:

- Use clean and properly dried leaves.
- Paste each leaf neatly on A4 sheets or chart paper.
- Label all specimens properly.
- Decorate the cover page creatively with the title: “Herbarium File – Diversity in Leaves”

### **Activity 3 – Osmosis Experiment**

Materials: Potato, Salt, Water, Two bowls

Procedure:

1. Make two cavities in potato halves.
2. Put salt in one cavity and water in another.
3. Leave for 30–40 minutes.

Observe and Answer:

1. In which cavity did water collect?
2. Which process occurred?
3. Explain the movement of water.

### **Section C – Model Questions**

#### **Very Short Answer Questions**

1. Who discovered cells?
2. Name the basic unit of life.
3. Which organelle is known as the powerhouse of the cell?
4. What is cytoplasm?
5. Name the organelle containing chlorophyll.

#### **Short Answer Questions**

1. Differentiate between prokaryotic and eukaryotic cells.
2. Write any three functions of the cell membrane.

#### **HOTS (Higher Order Thinking Skill) Question**

A scientist creates an artificial cell without a nucleus but with all other organelles present.

Do you think this cell will survive for a long

## Class-IX Subject - History

Ch-1 Beginning of civilization

Ch-2 State and Society

**Activity- 1** Timeline Activity.

Prepare a timeline showing the development of early civilizations and States.

Include: -

- Discovery of fire
- Beginning of farming
- Development of villages.
- Rise of river valley civilizations.
- Formation of Kingdoms and states.

**Instructions: -**

- Use chart paper and A4 Sheet
- Draw symbols or Pictures
- Use colorful headings.

**Activity. 2.** Map Work

On a world map mark the following ancient civilizations:

- Mesopotamian Civilization
- Egyptian civilization
- Indus valley civilization
- Chinese Civilization

**Also mark**

- River Nile
- Indus River
- River Tigris
- River Huang He

**Activity 3** Model Making.

Make any ONE model using clay / cardboard.

- Ancient village
- Indus Valley house
- Granary
- Early farming tools,
- Ancient city drainage system.

**Uses Materials**

- Clay
- Cardboard
- Waste materials
- Colors

**Activity-4.** Poster Making

Make a poster on one any topic:

- "Save Our Heritage"
- "Importance of civilizations"
- "Unity in Society"
- "Respect for culture and Traditions"

Use slogans, drawings and Colors.

**Chapter 2 Read and Prepare notes.**

**CLASS-IX**  
**HOLIDAY HOMEWORK**  
**SUBJECT-GEOGRAPHY**

- 1- Describe the major types of mountains and plateaus with suitable examples?
- 2- What is weathering? Name its three types.
- 3- Describe land forms formed by sea waves.
- 4- Describe the three main layers of the layer of the Earth. along with labelled diagram.
- 5- Explain the three types of plate movement with suitable diagrams and examples.
- 6- Difference between weathering and erosion.
- 7- Explain how wind acts as an agent of gradation and describe the landforms by wind action.
- 8- Which type of valley is formed by glaciers?
- 9- Which natural disaster is caused by sudden movement along faults?
- 10- Explain the caused and effects of Earthquakes.
- 11- Why are plains suitable for human settlement?
- 12- Explain the formation of U-shaped valleys.

## Class - IX Subject - Economics

- **Building blocks of nation – Slogan/Poster**
  - 1- Education, Agriculture, health, industries, transport, unity and democracy.
  - Q.1- What are the building blocks of nations?
  - Q.2- Why education is so important for the economy?
  - Q.3- How do industries help the nation?
  - Q.4- Which sector is most important for national development and why?
  - Q.5- What is Infrastructure process?
- **Price Puzzle Activity –**

Weekly Market Price Survey – Use 5 daily items (Rice, Dal, Milk, Sugar, Oil, vegetables)

  - Q.1- What is the price survey?
  - Q.2- Why are vegetable price unstable?
  - Q.3- Which item price changed the most?
  - Q.4- Why do prices increases or decreases?
  - Q.5- Which item has the most stable price?
  - Q.6- How does inflation affect common people?
  - Q.7- What did you learn from this activity?

Draw a colorful pie chart showing the percentage of each item with examples.
- **Family Budget Survey – Save money, Secure future**

Prepare a monthly budget table of your family under these heads:

  - a) Food b) Education c) Electricity d) Health e) Transport e) Savings
  - Q.1- What is the family budget?
  - Q.2- Which expenses is highest?
  - Q.3- How can a family reduce unnecessary Expenses? Give reasons.
  - Q.4 -Why is the family budget important?
  - Q.5- What happens if expenses become more than income?
  - Q.6- Why are savings important for us?
- **Save Resources Campaign – Save Resources Save Future**
  - 1- Saving water every drop count
  - 2- Reducing electricity use save energy
  - 3- Avoiding food wastage or reduce
  - 4- Reuse of recycled items
  - Q.1- How does saving resource help the economy?
  - Q.2- Why should we save resources?
  - Q.3- Name any 3 ways to save water?
  - Q.4 - How can students help in saving electricity?
  - Q.5 - What can student do to help?
  - Q.6- What is the meaning of recycling?

## Class :IX Political Science

**Note:- All questions are compulsory.**

- Prepare detailed reports on the democratic systems of following countries :-  
1. India    2. USA    3. Russia    4. Canada    5. France

Use hints given below:

- Form of government they run
  - Names of the legislative houses
  - Name of the legislature
  - Head of State and Head of Government
- 
- Search about the different Electoral Systems used in our country and note the significant differences in your notebook.
  - Revise the Chap. 01 – DEMOCRACY and also learn exercises given in the chapter.
  - Read the 2<sup>nd</sup> chap. – ELECTIONS and prepare the notes as per your understanding.

## Class: IX Information Technology (IT)

**Note:- All Questions are compulsory.**

### **Activity 1: MS word Project.**

Create a 3 – 4 page document in MS word on.(any 1 of the following topics):-

- a) My school      b) Digital India      c) Save environment      d) Clean India mission

### **Activity 2: PowerPoint skills.**

Create a PowerPoint presentation (5 – 7 ) slides on. (any 1 topic)

- a) Cyber safety and security.      b) Artificial Intelligence  
c) Internet and its Uses      d) Evolution of technology

### **Activity 3: Theory Work.**

Write short notes on the following topics. (Any 5)

1. Input devices      2. Output devices      3. Operating System  
4. Memory units      5. ALU, CPU      6. Types of software

### **Activity 4: Creative Work.**

Choose any one.

- a) Make a chart on computer Parts.  
b) Prepare a cyber safety poster  
c) Create a keyboard shortcut chart

### **Activity 5: Cyber Awareness**

Answer the following questions.

1. What is Cyber Crime?
2. What is Phishing?
3. How can we create a strong password?
4. Write five advantages of the Internet.
5. Write five disadvantages of social media.