P t . Y a d R a m S e c . P u b l i c S c h o o l

Thana Road, Bhajanpura, Delhi – 110053

Class :- IX

HOLIDAY HOME WORK (2026-27)

ENGLISH

- **Creative Writing:-**
  Imagine you are the grandmother of the chapter. Write a diary entry and express the feeling of grandmother in the chapter
  (HOW I TAUGHT MY GRANDMOTHER TO READ) .
- **Vocabulary Skill:-**
  Write meanings of these words: (a) Independent (b) Determination (c) Inspiration
  Use each word in a sentence.
- **Value-Based Question:-**
  How can education change a person's life?
  Note:- Do Diary entry in English Grammar notebook and vocabulary skill & value Based Question in English Reader notebook

हिन्दी

1. अनुच्छेद लेखन: निम्नलिखित विषयों पर अनुच्छेद लिखिए –
(क) पर्यावरण संरक्षण (ख) मोबाइल फोन : लाभ और हानि

2. पत्र लेखन: अपने मित्र को ग्रीष्मावकाश में भ्रमण/विहार पर एक मनोरंजक पत्र लिखिए।

3. संवाद लेखन: पानी बचाओ विषय पर दो मित्रों के बीच संवाद लिखिए।

4. कहानी लेखन: दो बैलों की कथा को अपने शब्दों में लगभग 100 शब्दों में लिखिए।

5. परियोजना कार्य: मुंशी प्रेमचंद का जीवन-परिचय एवं साहित्यिक परिचय देते हुए एक परियोजना तैयार कीजिए। (चित्र एवं सजावट अवश्य करें।)

6. पाठ्य-पुस्तक गंगा: पाठ – "दो बैलों की कथा" के प्रश्न–उत्तर याद करना।

7. व्याकरण: व्याकरण में उपसर्ग, प्रत्यय, अर्थ के आधार पर वाक्य - भेद से संबंधित प्रश्नों का अभ्यास करें।

8. अभ्यास कार्य: अनुप्रास, यमक और श्लेष तीनो अलंकारों के दो-दो उदाहरण याद करें।

9. पठन कार्य: प्रतिदिन कम से कम 20 मिनट हिन्दी समाचार-पत्र पढ़ें।

MATHS

- **Activity 1: Polynomial Card Game**
  Make 10 flash cards using coloured paper.
  On one side write a polynomial and on the other side write:
  - Degree
  - Number of terms
  - Type of polynomial

  Example:
  Front: $3x^2 + 5x – 1$
  Back:
  - Degree = 2
  - Trinomial
  - Quadratic Polynomial

- **Activity 2: Know Our Great Indian Mathematician**
  Prepare a project file on the "**life and contributions of a famous Indian mathematician"**.
  The file should include:
  - Introduction of the mathematician
  - Important discoveries and contributions in Mathematics
  - Interesting facts about their life
  - Pictures/drawings related to their work
  - Conclusion on how their contribution helps us today

  Some famous Indain mathematicians are:
  - Aryabhata
  - Srinivasa Ramanujan
  - Brahmagupta
  - Bhaskara II
  - Shakuntala Devi
- **Lab Manual**: Do experiment base activity of Ch – 1, 2 and 3.
- **Text Books:** Revise chapter - 2 (Exercises and Examples)

SOCIAL SCIENCE

- Revise all chapters which have been done in class.
- **Activity based questions**
  1. Draw and label the three types of plate boundaries (roll no. 1 to 10)
  2. Make a poster on the topic "Democracy gives us rights and responsibilities".
  (roll no. 11 to 20)
  3. Make a collage on "Save Environment, reduce disasters" (roll no. 21 to 36)
- **Map activity:** Solve the pages- 5,7,11,13,15,17,19 from your map book (My amazing book of maps)
- Solve the following worksheet in your holiday home work notebook.

SCIENCE

- **Activity 1: Motion Hunt Around You**
  Observe your surroundings and identify objects showing motion.
  Complete the table:

S.No	Object	Type of Motion
1	Ceiling fan	Circular motion
2	Swing	Oscillatory motion

  Find at least 10 examples.
- **Activity 1: Cells Around Us**
  Observe different living organisms around you and identify whether they are made up of:
  - Single cell (Unicellular)
  - Many cells (Multicellular)

  Complete the table:

S.No	Organism	Unicellular/Multicellular
1	Amoeba	Unicellular
2	Human	Multicellular

  Find at least **10 examples.**
- **Lab Manual**: Do experiment base activity of Ch – 2, 4 & 5.
- **Text Books:** Revise chapter 2 and 4 (Exercises and Examples)

English worksheet
Chapter 1 & 2 and poem 1

LITERATURE :-

Do all literature work in English Reader notebook.

1. HOW I TAUGHT MY GRANDMOTHER TO READ

Very Short Answer Questions:-

* How did the granddaughter help her grandmother?
* Explain the role of education in enhancing one's personality.

2. BHARAT – OUR LAND

Very short Answer Questions:-

* Explain the meaning of, "She's peerless, let's praise her".
* How this poem inculcate the value of Patriotism in us?

3. THE POT MAKER

Very short Answer Questions:-

* What are the challenges that a potter face?
* What values do we learn from the chapter 'The Pot Maker'?

GRAMMAR :-

Do all grammar work in English Grammar notebook.

Q1.I _____ working all afternoon and have just finished the assignment.

(a) have been. (b) had been (c) shall be (d) am

Q2. Rohan _____ the movie before he read the review.

(a) watches. (b) have watched. (c) had watched. (d) was watching

Q3. He _____ in the States but he still does not have a command over the English language.

(a) have been living. (b) has been living. (c) have lived. (d) living

Q4. By the next month, we shall _____ the project.

(a) has completed. (b) completing. (c) completed. (d) have completed

Q5. Every boy and girl _____ in the class today.

(a) are present. (b) is present. (c) have present. (d) had present

Q6. He _____ daily for a year now.

(a) exercises. (b) was exercising. (c) has been exercising. (d) have been exercising

Q7. I _____ this book since morning.

(a) had been reading. (b) has been reading. (c) have had read. (d) shall be reading

Q8. Which tense is used to express general truths and facts?

(a) Present continuous tense. (c) Present perfect tense

(b) Past perfect tense. (d) Present indefinite tense

Q9. According to the prevailing rate, two dozen _____ rupees one hundred.

(a) costs. (b) cost. (c) costing. (d) costed

Q10. The Council _____ made its decision.

(a) have. (b) have had. (c) has. (d) having

कार्यपत्रक – I

कक्षा-9th विषय- हिंदी

विषय: हिंदी व्याकरण एवं साहित्य

1. उपसर्ग और प्रत्यय

(क) निम्नलिखित शब्दों में उपसर्ग अलग कीजिए:

(i) अनुशासन = _____ + _____

(ii) प्रगति = _____ + _____

(iii) अन्याय = _____ + _____

(iv) निराशा = _____ + _____

(v) उपकार = _____ + _____

(ख) निम्नलिखित शब्दों में प्रत्यय अलग कीजिए:

(i) सुंदरता = _____ + _____

(ii) बचपन = _____ + _____

(iii) मिठास = _____ + _____

(iv) मानवता = _____ + _____

(ग) दिए गए उपसर्गों से दो-दो शब्द बनाइए:

(i) प्र = _____

(ii) अनु = _____

(iii) निर = _____

(iv) उप = _____

(घ) दिए गए प्रत्ययों से दो-दो शब्द बनाइए:

(i) ता = _____

(ii) पन = _____

(iii) ई = _____

(iv) वट = _____

2. अर्थ के आधार पर वाक्य भेद

(क) निम्नलिखित वाक्यों का भेद लिखिए:

(i) क्या तुम अपना कार्य पूरा कर चुके हो?

(ii) वाह! कितना सुंदर दृश्य है।

(iii) कृपया दरवाज़ा बंद कर दीजिए।

(iv) काश! मैं डॉक्टर बन पाता।

(v) आज विद्यालय में अवकाश है।

(vi) शायद आज वर्षा हो जाए।

(vii) तुम समय पर विद्यालय जाओ।

(viii) अरे! तुम यहाँ कैसे आए?

3. निम्न पंक्तियों में अलंकार पहचानकर लिखिए:

(i) "चारु चंद्र की चंचल किरणें।"

(ii) "कल कल करती कलियाँ खिलीं।"

(iii) "मधुर-मधुर मेरे दीपक जल।"

(iv) "कनक-कनक ते सौ गुनी।"

4. 'दो बैलों की कथा' लेखक: "मुंशी प्रेमचंद"

(क) निम्न प्रश्नों के उत्तर दीजिए:

(i) हीरा और मोती का स्वभाव कैसा था?

(ii) झूरी अपने बैलों से कैसा व्यवहार करता था?

(iii) गया बैलों के साथ कैसा व्यवहार करता था?

(iv) हीरा और मोती की मित्रता से हमें क्या शिक्षा मिलती है?

Class 9 Mathematics
Chapter 2: Introduction to Polynomial
Worksheet

1. Write a polynomial of degree 3 in the variable x, in which the coefficient of the x^2 term is –7.

2. Find the values of the following polynomials at the indicated values of the variables.
(i) $5x^2 – 3x + 7$ if $x = 1$ (ii) $4t^3 – t^2 + 6$ if $t = a$

3. If we multiply a number by $\frac{5}{2}$ and add $\frac{2}{3}$ to the product, we get $\frac{-7}{12}$. Find the number.

4. A positive number is 5 times another number. If 21 is added to both the numbers, then one of the new numbers becomes twice the other new number. What are the numbers?

5. If you have ₹800 and you save ₹250 every month, find the amount you have after (i) 6 months (ii) 2 years. Express this as a linear pattern.

6. The digits of a two-digit number differ by 3. If the digits are interchanged, and the resulting number is added to the original number, we get 143. Find both the numbers.

7. Draw the graph of the following equations, and identify their slopes and y-intercepts. Also, find the coordinates of the points where these lines cut the y-axis.
(i) $y = –3x + 4$ (ii) $2y = 4x + 7$ (iii) $5y = 6x – 10$ (iv) $3y = 6x – 11$
Are any of the lines parallel?

8. If the temperature of a liquid can be measured in Kelvin units as x K and in Fahrenheit units as y °F, the relation between the two systems of measurement of temperature is given by the linear equation $y = \frac{9}{5}(x – 273) + 32$.
(i) Find the temperature of the liquid in Fahrenheit if the temperature of the liquid is 313 K.
(ii) If the temperature is 158 °F, then find the temperature in Kelvin.

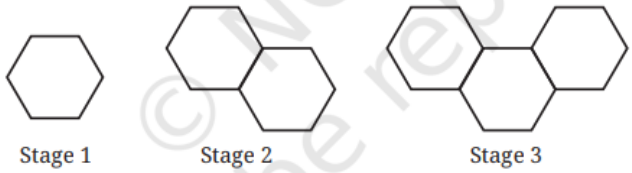
9. The work done by a body on the application of a constant force is the product of the constant force and the distance travelled by the body in the direction of the force. Express this in the form of a linear equation in two variables (work w and distance d), and draw its graph by taking the constant force as 3 units. What is the work done when the distance travelled is 2 units? Verify it by plotting it on the graph.

10. The graph of a linear polynomial p(x) passes through the points (1, 5) and (3, 11).
(i) Find the polynomial p(x). (ii) Find the coordinates where the graph of p(x) cuts the axes.
(iii) Draw the graph of p(x) and verify your answers.

11. Let $p(x) = ax + b$ and $q(x) = cx + d$ be two linear polynomials such that:
(i) $p(0) = 5$. (ii) The polynomial $p(x) – q(x)$ cuts the x-axis at (3, 0).
(iii) The sum $p(x) + q(x)$ is equal to $6x + 4$ for all real x.
Find the polynomials p(x) and q(x).

12. Look at the first three stages of a growing pattern of hexagons made using matchsticks. A new hexagon gets added at every stage which shares a side with the last hexagon of the previous stage.

(i) Draw the next two stages of the pattern. How many matchsticks will be required at these stages?



Stage 1 Stage 2 Stage 3

(ii) Complete the following table.

Stage Number	1	2	3	4	5	...	*n*
Number of matchsticks							

(iii) Find a rule to determine the number of matchsticks required for the nth stage

(iv) How many matchsticks will be required for the 15th stage of the pattern?

(v) Can 200 matchsticks form a stage in this pattern? Justify your answer

13. Let $p(x) = ax + b$ and $q(x) = cx + d$ be two linear polynomials such that:

(i) The graph of $p(x)$ passes through the points (2, 3) and (6, 11).

(ii) The graph of $q(x)$ passes through the point (4, –1).

(iii) The graph of $q(x)$ is parallel to the graph of $p(x)$. Find the polynomials $p(x)$ and $q(x)$. Also, find the coordinates of the point where these lines meet the x-axis.

14. What do all linear functions of the form $f(x) = ax + a$, $a > 0$, have in common?

SOCIAL SCIENCE

Worksheet (Ch – Social Science, Democracy, Election)

(Section A – MCQs)

1.Which of the following is a key feature of democracy?

a) Rule of one person
b) Hereditary rule
c) Government chosen by the people
d) Military rule

2. The minimum voting age in India is:

a) 16 years
b) 18 years
c) 21 years
d) 25 years

3. Elections in India are conducted by:

a) Prime Minister
b) Parliament
c) Election Commission of India
d) Supreme Court

4. Universal Adult Franchise means:

a) Only educated people can vote
b) Only men can vote
c) All adults have the right to vote
d) Only rich people can vote

(Section B – Short Answer Questions)

1. What happens when two tectonic plates collide?

2. What is meant by election?

3. Explain Universal Adult Franchise.

Section C – Long Answer Questions

1. **Explain the importance of elections in a democratic country.**
2. **Why is the Himalayan region prone to earthquakes?**
3. **Explain the areas of social science in details.**

Worksheet
Biology Ch-2 (Cell)

1. Mitochondria and chloroplast are two important organelles in a plant cell. Discuss how these two organelles are structural and functionally similar to each other, and different from each other.
2. What outcome do you expect, if all the mitochondria are removed from eukaryotic cell ?
3. Which phenomenon inhibits the formation of tumours in the human body? Can plants also develop tumours? Explain.
4. The cell membrane of a cell is made up of protein and lipids. Which cell organelles help in the synthesis of cell membrane? Write the path of these compounds from their site of synthesis to the cell membrane and show this through a levelled diagram.
5. What would happen if gametes are formed by mitotic divisions?
6. Explain why do spinach look green, papaya yellow and edible part of watermelon red.
7. Write down two main functions of

(a) Endoplasmic reticulum (b) Lysosomes

8. Name the cell organelles in which following structures are present:

(a) Cristae (b) Stroma (c) Centriole (d) Chromosome

9. Define:-

(a) hypertonic solution (b) hypotonic solution (c) isotonic solution .

10. Write down the differences between diffusion and osmosis .
11. What are centrioles? Write about their functions.

Worksheet
Physics Ch-4 (Describing Motion)

1.A truck running along a straight road increases its speed uniformly from 15 m /second to 30 m/second over a time interval of 1 minute. Find the acceleration. Also find the distance travelled by the truck during this time interval?
2.A cyclist travels a distance of 4 km from P to Q and then moves a distance of 3 km at right angle to Q. Find his resultant displacement geometrically.
3. An object can have zero average velocity but cannot have zero average speed. Justify.
4. The minute hand of a wall clock is 10 cm long. Find its displacement and the distance covered from 10:00 a.m. to 10:30 a.m.
5. A train covers half of its journey with a speed of 30 m/second and the other half with a speed of 40 m/second. Calculate the average speed of the train.
6. Akaar moves with the speed of 30 km per hour for half an hour 5 km/h for 1 hour and 40 km per hour for 2 hours. Calculate the average speed of car.
7. Name the physical quantities denoted by:-

a) the slope of the distance -time graph.

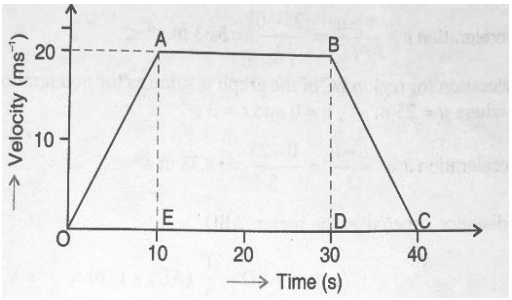
b) the area under velocity-time graph

c) the slope of velocity-time graph

8. Mohan and his sister Sania go to school on their bicycles. Both of them started same time from their home but take different time to reach the school all though they follow the same road post of different travel by them in different time is as given below:-

Time	8:00am	8:05am	8:10am	8:15am	8:20am	8:25am
Distance covered (By Mohan)	0km	1.0km	1.9km	2.8km	3.7km	4.6km
Distance covered (By Sania)	0km	0.8km	1.5km	2.0km	2.7km	3.8km

9.The velocity-time graph of a body is shown in the given figure below:-



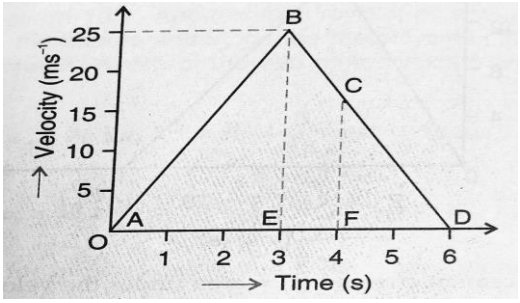
a) State the kind of motion reported by OA and AB.

b) What is the velocity of the body after 10 seconds and after 40 seconds?

c) Calculate negative acceleration of the body.

d) Calculate the distance covered by the body between 10th and 30th second.

10. Study the velocity-time graph in the given figure and calculate:-



a)the acceleration from A to B.

b)the acceleration from B to C.

c)the distance covered in the regionABD.

d)the average velocity from C to D.

e)the distance covered in the region BCFE.

Worksheet

Chemistry Ch-5 (Mixtures and their separation)

1. Calculate the concentration in terms of mass by volume percentage of the solution containing 3 g of potassium chloride in 75 ml of potassium chloride solution.

2. 6 g of urea was dissolved in 500 g of water. Calculate the percentage by mass of urea in the solution.

3. Name the technique used to separate:

a) Acetone from water b) Ammonium chloride from sodium chloride

c) Butter from curd d) Dyes from black ink

4. Why is air considered a mixture and not a compound? Give 2 reasons.

5. a)What is Tyndall effect?

b) Which of the following substances will show it:

salt solution, milk, copper sulphate solution, starch solution

6. A solution contains 50 mL of ethyl alcohol in 450 mL of water. Calculate the concentration of the solution in terms of volume by volume percentage.

7. Explain with diagram how you will separate a mixture of kerosene and water. Name the principle used. Why do the two liquids form separate layers?

8. A solution contains 30 g of sugar in 270 g of water. Calculate concentration in terms of mass by mass percentage. If 50 g more water is added, what will be new concentration?

9. Calculate the mass of sodium sulphate required to prepare its 20% (mass per cent) solution in 100 g of water.

10. You are given a mixture containing sand, iron filings, ammonium chloride and sodium chloride.

a) Suggest a flow chart to separate all components.

b) Name the property used in each step.

c) Which component will be recovered last and by which method?

11. a) What is meant by fractional distillation?What is the principle behind it?

    b) Give 2 industrial applications of fractional distillation.

12. <u>Case-Based Question</u>: Tisha's mother was preparing ghee from butter. She heated butter in a pan. First butter melted, then a white layer formed on top and some solids settled at bottom. She removed the white layer and got pure ghee.

a) Name the process used to get ghee from butter.

b) Is this separation physical or chemical? Give reason.

c) Which property of components is used here?

d) Name 1 more food item separated by same method.

e) What is the white layer called?