BJS PUBLIC SCHOOL

SUMMER HOLIDAY HOMEWORK

CLASS IX

2026 – 27

ENGLISH

1. "How I Taught My Grandmother to Read" – Creative Memory Project

👵📖 "Voices of Love and Learning"

Imagine that you are a young journalist who interviewed the grandmother from the story after she learned how to read. Create an imaginative "Memory Scrapbook Interview" based on her emotions, struggles, dreams, and achievements.

Your project should creatively include:

- A fictional interview with Grandmother
- Her feelings before and after learning to read
- Inspirational messages about education
- Drawings, pictures, or symbolic sketches
- A special message from you to your grandparents

Present your work artistically using dialogues, captions, decorative borders, and creative layouts.

2. "The Pot Maker" – Art & Culture Exhibition File

🏺 "Hands That Shape the Earth"

Prepare a creative cultural project celebrating the life and art of a pot maker. Imagine visiting a pottery village and documenting the experience like an explorer, artist, or photographer.

Your presentation may include:

- Importance of pottery in Indian culture
- Process of making pots
- Challenges faced by pot makers
- Eco-friendly importance of clay products
- Your own pottery-inspired artwork or designs

Decorate your file with earthy colours, traditional patterns, sketches, and creative captions.

3. "Bharat – Our Land" – Vision Board of India

IN "My India, My Pride"

Design a colourful and inspiring "Vision Board of Bharat" that showcases the beauty, strength, culture, diversity, and future dreams of India.

Your vision board should creatively represent:

- Unity in Diversity
- Indian traditions and festivals
- Famous monuments and historical places
- Achievements of India
- Your dream for the future of the nation

Use drawings, slogans, quotes, magazine cut-outs, maps, and artistic decorations to make your board visually appealing and meaningful.

4. Word Galaxy – Vocabulary Adventure Project

📚 "Discover the Power of Words"

Create a creative vocabulary journal that explores the beauty of English words through fun and innovative activities.

Your project should include:

- Synonyms and antonyms
- Idioms and phrases
- Powerful adjectives
- Positive and negative words
- Word chains and mind maps
- Vocabulary games or puzzles

Present your work like a colourful language magazine filled with creativity, illustrations, and attractive headings.

5. Time Traveller's English Diary

⏳ "A Journey Through Imagination"

Imagine that you travelled either to the past or the future and maintained a personal diary of your adventures. Create a beautifully designed diary project filled with creativity and imagination.

Your diary should include:

- Date and place of travel
- Description of people and surroundings
- Interesting conversations
- Problems faced during the journey
- Lessons learned from the experience

Decorate your diary with maps, doodles, tickets, symbols, sketches, and creative page designs to make it look realistic and engaging.

✨ PRESENTATION GUIDELINES ✨

- Use coloured A4/A3 sheets neatly
- Maintain proper headings and spacing
- Add pictures, sketches, captions, and borders
- Use creative and artistic presentation styles
- Showcase originality, imagination, and neatness
- Handwriting should be clear and presentable

🌟 *"Creativity is seeing what others see and thinking what no one else has thought."* 🌟

हिंदी

खंड – अ (पाठ आधारित प्रश्न)

1. 'दो बैलों की कथा'

(क) हीरा और मोती के स्वभाव में क्या अंतर था?

(ख) कहानी से हमें क्या शिक्षा मिलती है?

(ग) यदि आप हीरा या मोती होते तो क्या करते? (50 शब्दों में लिखें)

2. 'रैदास के पद'

(क) रैदास जी किस प्रकार के समाज की कल्पना करते हैं?

(ख) 'मन चंगा तो कठौती में गंगा' का अर्थ स्पष्ट करें।

(ग) किसी एक पद का भावार्थ लिखिए।

खंड – ब (व्याकरण)

3. संज्ञा

(क) संज्ञा की परिभाषा लिखिए।

(ख) निम्नलिखित शब्दों के भेद बताइए: राम, पुस्तक, दिल्ली, सुंदरता, भीड़

4. उपसर्ग–प्रत्यय

(क) उपसर्ग और प्रत्यय की परिभाषा लिखिए।

(ख) निम्न शब्दों में उपसर्ग/प्रत्यय अलग करें: असत्य, विद्यालय, खुशहाल, शिक्षक, अनपढ़

5. मुहावरे

निम्न मुहावरों का अर्थ लिखकर वाक्य बनाइए:

- आँख का तारा
- दाँत खट्टे करना
- नाक कटना
- हाथ-पैर फूलना

6. समानार्थी शब्द

निम्न शब्दों के 2-2 समानार्थी लिखिए: सूर्य, जल, मित्र, पृथ्वी, अग्नि

खंड – स (रचनात्मक लेखन)

7. अनुच्छेद लेखन

विषय: "मेरी ग्रीष्मकालीन छुट्टियाँ" (100–120 शब्द)

8. रचनात्मक कार्य

'दो बैलों की कथा' से प्रेरित होकर:

हीरा और मोती का चित्र बनाइए और उनके संवाद लिखिए।

MATHEMATICS

1. SUSTAINABILITY COUNTS! ENERGY CHALLENGE

- **What to do:** Comparative study of consecutive electric bills

- **How to do:**
  - Examine your electricity bill of pre summer break.
  - List the various electrical appliances used in your home.
  - Find out the power consumption, duration for the device in use. Do estimate calculation of your bill as per power consumption.
  - Make an energy reduction plan and determine how far you could implement it.
  - Re-examine your electricity bill of post summer break with all calculations.
  - Paste both bills with calculations. Write your reduction plan and change in the bill

- **Where to do:** On A-4 size sheets.

2. MATHEMATICS ARTICLES

- **What to do:** Read and record an article related to mathematics and write a report of 100 words.

- **How to do:** Take help of the below links or magazines and choose a suitable article.
  - https://mathgoodies.com/
  - https://azimpremjifoundation.com (At Right Angles Magazine)
  - https://www.tandfonline.com
  - Mathematics today
  - Mathematics Spectrum

- **Where to do:** On A-4 size sheet

3. COORDINATE GEOMETRY ART

- **What to do:** Draw a design /object/creature.

- **How to do:**
  - Take a graph paper and draw two perpendicular lines to obtain four quadrants.
  - Draw any one design /object/creature of your choice using straight lines only to cover all quadrants.
  - Write the coordinates of each point of intersection of line segments.
  - Colour the art work obtained.

- **Where to do:** Paste the graph paper on an A-4 size sheet.

NOTE: All A-4 size sheets should be submitted in one folder.

4. NCERT & ASSIGNMENTS

Do all examples & assignments of chapter 1 and chapter 3 in a separate register/ notebook.

ASSIGNMENT 1
COORDINATE GEOMETRY

1. Write the number of quadrants of a cartesian plane .
2. In which quadrant will the point with abscissa=-5 and the ordinate =-3 ?
3. Write the equation of the graph YOY'.
4. Write the coordinates of a point whose ordinate is -1/2 and abscissa is 1.
5. Which of the following points P(0,3) Q(1,0) R(0,-1) , S (-5,0) , T(1,2) do not lie on the x-axis.
6. Draw the following points on the graph

   (i) (2,-3) (ii) (3,-4) (iii) (4,-5) (iv) (5,1)
7. On which axis do the given points lie

   A (0,4) , B (-5,0) ,C (0, -4) and D (3,0)
8. Find the area of the figure formed by joining points L (0,4) , M(4,4) ,N (4,0) and O (0,0)
9. Plot the point P(-3,4) . Draw PM and PN perpendiculars to x-axis and y- axis respectively. State the coordinates of M and N.
10. A point lies on x axis at a distance of 9 units from y axis .What are its coordinates ? What will be its coordinates, if it lies on y axis at a distance of -9 unit from x – axis. ?
11. Plot the points (3,2) ,(-2,2) , (-2,-2) and (3,-2) in the cartesian plane. Join these points and name the figure so formed.

12. Write the coordinates of the vertices of a rectangle whose length and breadth are 5 units and 3 units respectively. One vertex at the origin ,the longer side lies on the x-axis and one of the vertices lies in the third quadrant.

13. Plot the points E (3,3) ,N(9,3) and D (9,11), Join EN , ND and DE. Name the figure so formed.

14. Three vertices of a rectangle are (-4,2) , (-4,5) and (3,5) . Plot points and find the coordinates of the fourth vertex.

15. Without plotting the points indicate the quadrant in which they lie , if

(i) ordinate is 5 and abscissa is -3

(ii) abscissa is-5 and ordinate is-3

(iii) abscissa and ordinate both = 5

SCIENCE

PART A: BIOLOGY

Part I: Hands – On Activities (The Lab at Home)

A. The "Naked Egg" Osmosis Challenge Place a raw egg in a jar of vinegar for 24–48 hours until the shell dissolves, leaving only the selectively permeable membrane.

- **Activity:** Place the "naked" egg in a hypertonic solution (corn syrup or high-salt water) for 12 hours.
- **The Goal:** Observe the change in size and explain the movement of water molecules through the membrane.

B. Edible Fluid-Mosaic Model Instead of a drawing, create a 3D cross-section of a cell membrane using snacks.

- **Activity:** Use a tray of jelly (the cytoplasm), floating marshmallows (integral proteins), and toothpicks with grapes (phospholipids).
- **The Goal:** Demonstrate the "fluidity" by moving the marshmallow "proteins" around the "lipid" sea without breaking the structure.

Part II: The 3 Creative Tasks

A. The "Cell-ebrity" Interview (Podcast or Script)

- Imagine you are interviewing a Thermophile (a heat-loving bacterium from the Puga Valley hot springs).
- **Task:** Write a 1-page script or record a 2-minute audio clip asking it how its cell structure survives extreme heat compared to a normal human cell.

B. The "Micro-Math" Detective Scenario

- You found a mysterious leaf. Under a microscope with a 400X magnification, you see exactly 20 cells lined up across a field of view that is 2mm wide.
- **Task:** Calculate the size of a single cell in micrometers. Show your steps clearly using the Formula, Cell Size = $\frac{\text{Diameter of field}}{\text{No. of cells}}$

C. The Travel Brochure: "Destination Organelle"

- **Task:** Design a colorful travel brochure for a "tourist" entering a plant cell.
- **Requirements:** You must include a "Border Control" section (explaining the Cell Wall vs. Plasma Membrane) and a "Safety Warning" about what happens if the tourist falls into a Hypertonic sugar-syrup lake (exosmosis!).

Part III: Worksheet

MULTIPLE CHOICE QUESTIONS

1. A group of scientists is studying early Earth environments near hot springs. They observe calcium carbonate deposits forming around these springs and hypothesize that such environments may have played a role in the origin of life. Based on this observation, which of the following best explains the possible significance of these deposits?
   A) They supplied essential nutrients directly to the earliest cells
   B) They formed protective structures that could enclose organic molecules and support the development of early cell membranes
   C) They released oxygen into the atmosphere, enabling aerobic respiration
   D) They led to the extinction of heat-loving organisms (thermophiles).

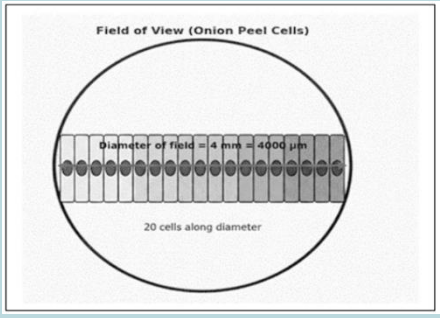
2. A student places a cell in a solution containing water, oxygen, and large starch molecules. After some time, the student observes that water and oxygen have entered the cell, but starch molecules have not. What does this observation indicate about the nature of the plasma membrane?
   A) It allows all substances to pass through freely
   B) It blocks all substances completely
   C) It allows some substances to pass while blocking others
   D) It only allows gases to pass through

3. If the eyepiece of a microscope has a magnification of 10X and the objective lens has a magnification of 40X, what is the total magnification?
   A) 40X B) 50X C) 400X D) 4000X

4. A botanist explains that trees remain upright even during strong winds due to a structural feature in plant cells. However, animal cells do not have this feature because animals need flexibility for movement. Which statement best explains this difference?
   A) Plant cells lack movement, so they need a rigid outer layer for support
   B) Animal cells require rigidity for protection against wind
   C) Plant cells are always smaller than animal cells
   D) Both plant and animal cells have identical outer coverings.

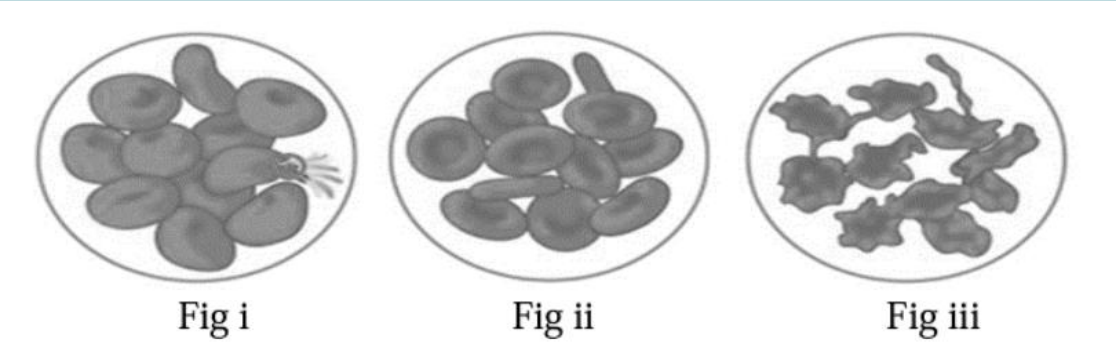
5. A student tries to observe two very close dots on a paper held at a distance of 25 cm from the eye. The dots appear as a single point when the distance between them is very small, but become distinguishable when the separation increases. What is the minimum distance between the two dots at which the student can see them as separate?
   A) 0.1 mm B) 1 mm C) 10 mm D) 100 mm

6. In an experiment to measure cell size, the diameter of the field of view is 4 mm (4000 µm) and 20 onion peel cells are counted along the diameter. What is the estimated size of one cell?



A) 20 µm B) 200 µm C) 2000 µm D) 20 mm

7. Observe the figures given below and choose the correct sequence:



A) Fig i. Hypotonic solution, Fig ii. Hypertonic solution, Fig iii. Isotonic solution
B) Fig i. Hypertonic solution, Fig ii. Isotonic solution, Fig iii. Hypotonic solution
C) Fig i. Hypertonic solution, Fig ii. Hypotonic solution, Fig iii. Isotonic solution
D) Fig i. Hypotonic solution, Fig ii. Isotonic solution, Fig iii. Hypertonic solution

For the questions 8 to 11, two statements are given-one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the options (A), (B), (C) and (D)as given below:

(a) Both A and R are true and R is the correct explanation of the assertion.
(b) Both A and R are true but R is not the correct explanation of the assertion.
(c) A is true but R is false.
(d) A is false but R is true.

8. **Assertion (A):** A potato piece kept in plain water swells.
Reason (R): Water enters the potato cells by osmosis through the selectively permeable cell membrane.

9. **Assertion (A):** Electron microscopes reveal finer details of cell structure than light microscopes.
Reason (R): Electron microscopes use visible light to produce highly magnified images.

10. **Assertion (A)**: Animal cells have a rigid cell wall to maintain their shape.
Reason (R): Animal cells shrink in concentrated sugar solution because they lack a cell wall.

11. **Assertion (A):** Bacteria are classified as unicellular organisms.
Reason (R): Each bacterium is made up of a single cell.

VERY SHORT QUESTIONS

12. Who proposed the cell theory? What are its main postulates?

13. Hot springs such as those in the Puga Valley provide extreme environmental conditions similar to early Earth.
    a) Name the type of organisms found in these hot springs.
    b) Explain why hot spring environments are considered suitable for studying the origin of life on Earth.

14. Distinguish between Diffusion and osmosis.

15. Describe the structure of the cell membrane according to the 'fluid-mosaic model'.

16. Two beakers, A and B, contain plain water and a concentrated sugar solution respectively. Equal pieces of carrot are placed in both beakers for a few hours and then removed. Explain the changes observed in their size or appearance after being kept in the two different solutions.

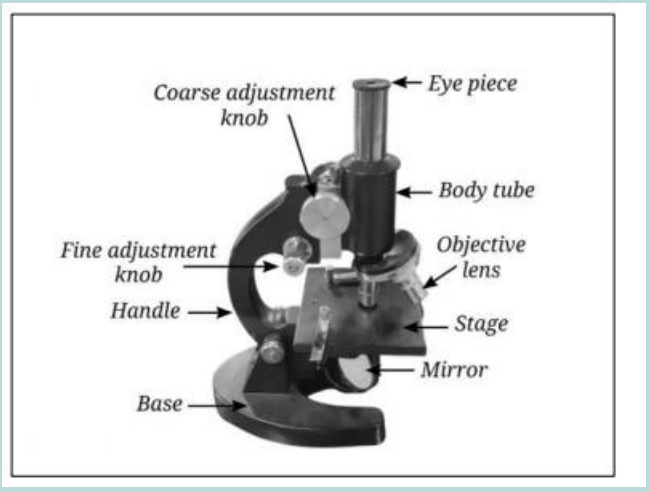
SHORT ANSWER QUESTIONS

17. Define and differentiate between hypotonic, isotonic, and hypertonic solutions.

18. Perform the following osmosis experiment and answer the related questions:
    Take four peeled potato halves and scoop each one out to make potato cups. One of these potato cups should be made from a boiled potato. Put each potato cup in a trough containing water."
    Then, follow these steps:
    Cup A: Leave empty.
    Cup B: Add 1 tsp sugar.
    Cup C: Add 1 tsp salt.
    Cup D: Add 1 tsp sugar to a boiled potato.

    a) Why does water collect in the hollowed portions of cups B and C?
    b) Why is potato A included in the experiment?
    c) Why does water not collect in the hollowed-out portions of A and D?

19. A labelled diagram of a light microscope is given. Briefly describe each part shown in the diagram.



20. Describe how oxygen (O_2) and carbon dioxide (CO_2) diffuse through the cell membrane.

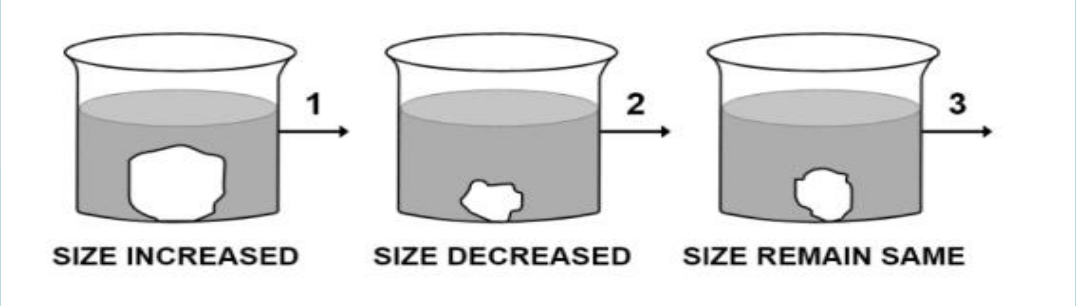
LONG ANSWER TYPE QUESTIONS

21. Explain how the size of an onion peel cell can be estimated using a microscope.

22. A student prepares slides of onion peel cells and cheek cells and observes them under a microscope. Later, both slides are placed in a 20% sugar solution and observed again after some time. Answer the following:
    a) How do onion peel cells appear under the microscope?
    b) How do cheek cells appear under the microscope?
    c) What change is observed in plant cells after placing them in a sugar solution?
    d) What change is observed in cheek cells after placing them in a sugar solution?
    e) What causes the difference in their response?

SOURCE BASED/CASE BASED QUESTION

23. A candidate conducted an experiment to study osmosis by placing three potato cubes in three separate beakers containing different solutions. After 24 hours, the observations were as follows:
    In Beaker 1, the potato cube increased in size.
    In Beaker 2, the potato cube decreased in size.
    In Beaker 3, the size of the potato cube remained unchanged.
    The diagram provided represents the results of this experiment.



(a) Identify the technical terms for the types of solutions in Beakers 1, 2, and 3. Why does the potato cube in Beaker 3 remain unchanged in size?
(b) What are the specific features of the cell sap in root hairs that help in water absorption?
(c) Define osmosis and explain its significance in plant cells.
(d) How does the permeability of the cell membrane differ from that of the cell wall?

PART B: CHEMISTRY

Part I: Hands – On Activities

A. Observation of Change in States of Matter

- **Objective:** Show melting, freezing, condensation, and evaporation.
- **Materials:** Ice cubes, a glass, water, a spoon, and a heating source.
- **Instructions:** Observe how ice melts into water and how water evaporates. Record temperature changes and time.

B. Evaporation Rate Comparison

- **Objective:** Compare how fast water evaporates under different conditions.
- **Materials:** 3 cups of water, fan, sunlight, room temperature.
- **Instructions:** Measure and compare the time taken for evaporation.

C. Effect of Surface Area on Evaporation

- **Objective:** Understand how surface area affects evaporation.
- **Materials:** Water, a plate, a bowl, and a glass.
- **Instructions:** Pour equal amounts of water and observe evaporation speed.

D. Model Making: States of Matter

Make a 3D model showing solid, liquid, and gas particles using clay or thermocol balls.

E. Science Comic or Storyboard

Make a comic strip explaining states of matter through characters like “Solid Sam”, “Liquid Lily”, and “Gas Gary”.

Part II: Worksheets

SECTION A(1 mark questions)

(A) Multiple Choice Questions

Q1. Rutherford's alpha scattering experiment resulted in the discovery of :

a. Electron
b. Proton
c. Nucleus in the atom
d. Atomic mass

Q2. Which of the following is are true for an element

a. Atomic number = number of protons + number of electrons
b. Mass number = number of protons + number of neutrons
c. Atomic mass = number of protons = number of neutrons
d. Atomic number = number of protons = number of electrons
i. a & b ii. a & c iii. b & c iv. b & d

Q3. Elements with valency 1 are

a. always metals
b. always metalloids
c. either metals or non metals
d. always non metals

Q4. Isotopes contain

a. Same nuclear charge but different mass number
b. Different nuclear charge but same mass number
c. Same nuclear charge and same mass number
d. Same number of neutrons

(B) Assertion and Reasoning

Direction : in the following questions , a statement of assertion (A) is followed by a statement of reason (R) . Mark the correct choice as :

a. Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A)
b. Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A)
c. Assertion (A) is true but reason(R) is false
d. Assertion (A) is false but reason(R) is true

Q5. Assertion: calcium and argon are isobars .
. Reason : calcium and argon have the same mass numbers .

Q6. Assertion: the number of valence electrons in oxygen atoms is 6 .

Reason : the valency of oxygen atom is 6

Q7. Assertion: most of the alpha particles in Rutherfords experiment passed straight through the gold foil

Reason : the centre of the atom is positively charged

(C)Answer very briefly

Q9. Give an application of radioactive e isotope ?

Q10. The atomic number of phosphorus is 15. what is the electronic configuration of Of P^{3-} ion ?

Q11. The atom as a whole is electrically neutral was proposed by _____.

SECTION B (3 mark questions)

Q12. Answer as directed

a. Why did Rutherford select a gold foil in his alpha scattering experiment ?
b. Write the name and symbol of the particle chosen by Rutherford for bombardment against the gold foil experiment .

Q13. For an element X , it is given that atomic number = 17 and mass number = 35

a. Write the electronic configuration of the element X .
b. Find the valency .
c. What will be the formula of the compound formed between X and Y having valency 3 ?

Q14. Answer as directed

a. What is isobars ?
b. Atomic number of an element Y is 17.
  i. Write its electronic configuration
  ii. What is the number of valency electrons in Y
  iii. How many electrons are needed to complete the octet of Y
  iv. Is it a metal or a non metal
c. The valency of Na is 1 and not 7 . give reason

Q15. Two metals elements X and Y combine in the ratio of 3 : 8 by mass and the compound Z is formed , Z is one of the essential components for photosynthesis to take place . If Z is also a green house gas then

a. Identify X , Y and Z
b. Write the electronic configuration of X a nd Y

Q16. State the major drawback in Rutherford's model of the atom . mention two features of Bohr's model that have helped to compensate this drawback .

SECTION C (5 marks)

Q17. Answer as directed

a. Write any two observations that support the fact that atoms are divisible
b. Enlist the conclusions drawn by Rutherford from his alpha scattering experiment
c. Write about Rutherfords model of the atom

Q18. Answer as directed

a. What are isobars . give examples
b. Read the table and answer the questions below

Element	A	B	C	D	E
Mass no.	1	7	14	40	40
Atomic no	1	3	7	18	20

i. Select a pair of isobars from the table
ii. Which two sub- atomic particles are equal in number in neutral atoms

PART C: PHYSICS

- Describing Motion Around Us
  - Draw position time graph and velocity time graph for different conditions.
  - Derive equation of motion by graphical method.
  - Solve five numerical on each topic – distance and displacement, speed and velocity, acceleration.

- How Forces Affect Motion
  - Write Newton's laws of motion and explain second law.
  - With example explain third law how action is equal to reaction
  - Solve five numerical on law of motion.

SOCIAL SCIENCE

I. Attempt the following questions in your Geography Register:

1. Explain the interconnection of Social Science disciplines.
2. Explain the guiding values of social science.
3. Explain the scope of social science.
4. Explain the theory of Plate tectonics with elaborate diagram.
5. Explain the types of weathering.
6. Describe the role of agents of erosion with elaborate diagram.

7. **Case 1:** During summer afternoons, coastal areas experience cool winds from the sea, while at night winds blow from land to sea.

   Question: Explain the types of local winds described in the above situation.

8. **Case 2:** Farmers are worried due to irregular rainfall, rising temperatures and melting glaciers affecting water supply.

   Question: Identify the problem and explain its major effects.

II. Make an elaborate timeline of early humans and beginnings of civilization, starting from prehistoric time (Stone age) to the development of various civilisations around the world. Paste relevant images along with descriptions in your CW/HW notebook.

III. Practice locating the following places on map and paste it in geography register: Arabian Sea branch and Bay of Bengal branch of Indian monsoon

IV. Make a detailed project work on the following topics.

- **Theme:** Water Conservation and Sustainable Living
- **Project Title:** "Save Water, Save Life"
- **Activity:** Find out which states in India face water shortage. And explain why some areas receive less rainfall. Write about traditional methods of water conservation in India such as: Step wells, Tanks, Johads, Baolis. Visit the step-wells and Baolis in and around Hyderabad or gather information through stake holders (Primary sources). Mention one local water problem in your area and suggest a solution.

Learning Objective:

- Students will be able to locate and name Indian states that experience water shortages (e.g., Rajasthan, Maharashtra, parts of Karnataka and Tamil Nadu).
- Students will explain reasons for low rainfall in certain regions, such as geographical location, monsoon patterns, and deforestation.
- Students will describe traditional water conservation systems like stepwells, tanks, johads, and baolis, and understand their relevance even today.
- Students will analyze a local water problem in their area and propose practical, sustainable solutions.
- Students will develop a sense of responsibility towards water conservation and adopt water-saving practices in their daily lives.

SDG goals aligned

1. Which Sustainable Development Goals (SDG) are addressed through this activity?
2. Explain how the activity contributes to achieving this goal with at least two relevant points.

Guidelines:

- The Project report should be handwritten.
- The project work should be done on A4 size sheets (10 – 15 pages including cover page, conclusion and bibliography)
- The project should follow the format given below:
  - Cover Page
  - Index
  - Introduction – Brief about the topic chosen
  - Causes and related factors (what, why, how)

V. Prepare a 3D model of any historical monument of Maharashtra or 3D model map of Maharashtra locating its important geographical locations and cultural heritage sites and artefacts associated with it.

VI. Complete your CW/HW notebook and revise the topics discussed in class.

VII. Disaster Management

Every student has to compulsorily undertake one project on the topics according to the roll number given in the table.

ROLL NUMBERS	TOPIC
1 – 15	Earthquake in India
16 – 30	Floods in India
31 – 45	Landslides in India

- **Objective:** The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from interdisciplinary perspective. It should also help in enhancing the Life Skills of the students.

- Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report. If required, students may use different primary and secondary resources to prepare the project.

- If possible, different forms of Art may be integrated in the project work.

- Use eco-friendly products without incurring too much expenditure.

- **The Project Report should be handwritten by the students themselves on A4 size sheets.**

- **Pattern of the Project File**

1. Cover page – Project title, school name, session, class, subject, name of the student
2. First page – Project title, subject, session, name of the student, class/section
3. Acknowledgment – Acknowledging the individuals/institutions who helped in making the project
4. Index – With page numbers
5. Introduction – Purpose and aim of the project
6. Content – Present material/ data/ statistics with related pictures, pie charts, bar graphs, cartoons, slogans, maps etc. on the left side of the file to make a quality project.
7. Conclusion – Draw a relevant conclusion by mentioning the learning outcome and suggestions
8. Bibliography – Mention name of the book, newspaper, magazine, website, author, publisher.

ARTIFICAL INTELLIGENCE

Task 1: Become a Machine Trainer

- **The Mission:** Build your very own AI model that can "see" and categorize the world.
- **The Tool:** Use **Google's Teachable Machine**—a fast, fun way to create machine learning models with no coding required!
- **The Challenge:** Choose a theme for your model:
  - **Eco-Warrior:** Distinguish between plastic, paper, and metal for recycling.
  - **Mood Reader:** Classify different facial expressions.
  - **Pet Pro:** Identify different breeds of dogs or cats.
- **Get Started:** Visit Teachable Machine to start training your model using your webcam or uploaded images.

Task 2: The Great Debate Presentation

- **The Mission: Create a high-energy presentation (PowerPoint, Canva, or Prezi) that breaks down the "Old School" vs. the "New School" of AI.**
- **What to include:**
  - **The Showdown: Compare how Rule-Based systems follow strict "If-Then" instructions versus how Machine Learning learns from patterns in data.**
  - **Real-World Examples: Why does a calculator use rules while Netflix recommendations use machine learning?**
  - **Visuals: Use memes, diagrams, or short clips to keep your classmates hooked!**

💡 **Pro-Tip: You'll be taking the stage to present your findings to the class after the vacation, so make it bold and make it yours!**

ART EDUCATION

ART WORK

1. Make a Canvas Painting on any social theme.
2. Draw a Human Face Sketch with proper shading.

CRAFT WORK

1. Make a 3D Model using recyclable materials.
2. Create a Clay Pot Decoration or terracotta painting