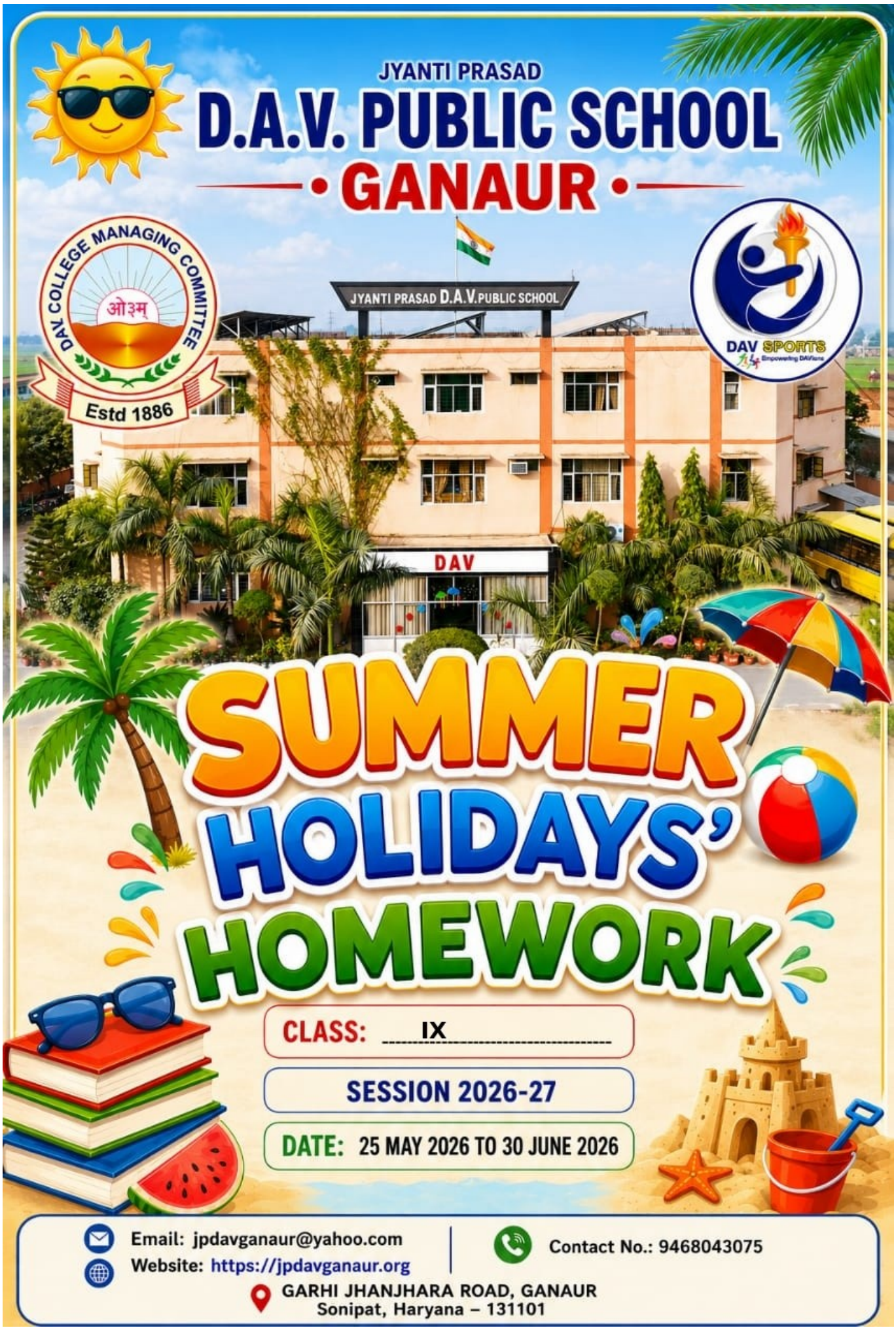
JYANTI PRASAD

D.A.V. PUBLIC SCHOOL

• GANAUR •



SUMMER HOLIDAYS' HOMEWORK

CLASS: IX

SESSION 2026-27

DATE: 25 MAY 2026 TO 30 JUNE 2026

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GENERAL INSTRUCTIONS

1. Complete the holiday homework neatly and sincerely.
2. Use a separate notebook/file as instructed by the subject teacher.
3. Write your name, class, section, and roll number clearly on every notebook/project.
4. Maintain proper handwriting and presentation.
5. Do the work independently. Parents may guide, but students should complete the work themselves.
6. Submit the homework on the reopening day after summer vacation.
7. Revise the syllabus covered in class regularly during the holidays.
8. Read newspapers, storybooks, and other informative materials daily to improve language skills.
9. Practice writing, reading, and learning tables/formulas every day.
10. Avoid excessive use of mobile phones, television, and video games.
11. Spend quality time with family and follow a healthy daily routine.
12. Keep your surroundings clean and follow good habits.
13. Participate in creative activities such as drawing, craft, yoga, gardening, or music.
14. Learn something new during the holidays and make productive use of your time.
15. Complete all projects and activities as per the given instructions.
16. Students are advised to stay safe and take care during the summer season.
17. Drink plenty of water and avoid going out in extreme heat unnecessarily.
18. Holiday homework will be assessed after the vacation.

ENGLISH

Explore • Imagine • Create

✨ **Instructions**

- Complete the work neatly in a file.
- Use colours and creativity.
- Write in your own words.

1. Around Me Journal 🌍

Observe your surroundings for 5 days. Write one interesting observation daily about:

- Nature

- People
- Weather
- Society

Also mention: What did you learn?

2. Comic Strip Activity 🎥

Convert any chapter/poem from your English book into a comic strip with:

- Drawings
- Dialogues
- Captions

3. Interview a Character 🎤

Imagine you are interviewing a character from your textbook. Write:

- 6 questions
- Character's answers

4. Travel Brochure ✈️

Design a brochure for an imaginary place. Include:

- Attractions
- Activities
- Slogan
- Colourful illustrations

5. Acrostic Poem 🌌

Write an acrostic poem on:

- "FRIENDSHIP"

or

- "COURAGE"

6. Thinking Skills 💭

Answer any TWO (70 words each):

1. What if books disappeared forever?
2. Should children use social media?
3. What changes would you make as House captain with the help of your teachers?

7. Advertisement Design 🎨

Create an advertisement for:

- A magical school
- A robot helper
- A pollution-free city

Add slogan and drawings.

8. "Who Am I?" Page ❤️

Create one page about yourself including:

- Hobbies
- Strengths
- Dreams
- Favourite quote

⭐ Bonus Task

Prepare a book recommendation card with:

- Book name
- Author
- Favourite character
- Rating ⭐

HINDI

प्रश्न-1: 'दो बैलों की कथा' पाठ का सारांश अपने शब्दों में लिखिए ।

प्रश्न-2: 'काजी हौस' किसे कहा जाता है और वहां पशुओं के साथ कैसा व्यवहार किया जाता है ?

प्रश्न-3: 'दो बैलों की कथा' पाठ में प्रेमचंद जी ने किन मानवीय मूल्यों को उजागर किया है ?

प्रश्न-4: कोई दो सामाजिक एवं देशभक्ति आधारित लघु नाटिका लिखिए ।

प्रश्न-5: 'युद्ध का सामान्य जीवन पर दुष्प्रभाव' तथा 'मेरी पर्वतीय यात्रा' विषय पर अनुच्छेद लेखन कीजिए ।

प्रश्न-6: कोई दो अनौपचारिक पत्र लिखिए ।

प्रश्न-7: उपसर्ग तथा प्रत्यय के 15-15 शब्दों की नए शब्द बनाना एवं उपसर्ग तथा प्रत्यय अलग करना – तालिका तैयार कीजिए ।

प्रश्न-8: विराम चिन्हों के नाम एवं वाक्य में प्रयोग की तालिका तैयार कीजिए ।

परियोजना कार्य

- भारत के ग्रामीण जीवन के रहन-सहन, खान-पान एवं पहनावे पर परियोजना कार्य तैयार कीजिए । (सेक्शन A)
- वन्य जीवों के संरक्षण पर एक परियोजना कार्य तैयार कीजिए । (सेक्शन B)
- प्रेमचंद जी द्वारा सामाजिक समस्या पर लिखित अन्य कहानी पर आधारित परियोजना कार्य तैयार कीजिए । (सेक्शन C)

MATHEMATICS

DO THIS ASSIGNMENT ON SEPARATE NOTEBOOK

1. Express 2157625 in the decimal form.
2. Express the following decimals in p/q form:
   - i) 0.00352
   - ii) 23.43
3. Find two irrational numbers between 0.12 and 0.13.
4. Examine whether the following are rational or irrational:
   - i) $2 + \sqrt{3}$
   - ii) $\sqrt[3]{18}$
   - iii) $\sqrt{-64}$
5. Simplify and rationalize: $(2\sqrt{3} - \sqrt{5}) / (2\sqrt{2} + 3\sqrt{3})$
6. If $x = 2 + \sqrt{3}$, find: i) $x - 1/x$ ii) $x^2 + 1/x^2$
7. If $(5 + \sqrt{3}) / (7 - 4\sqrt{3}) = 47a + \sqrt{3} \cdot b$, find a and b.
8. Fill in the blanks:
   - i) Abscissa of all points on the x-axis and y-axis is _____.
   - ii) The point at which 2 coordinate axes meet is called _____.
   - iii) If y-coordinate of a point is zero, it always lies on _____ axis.
   - iv) The point on y-axis at a distance of 5 units in the negative direction has coordinates _____.
   - v) The image of the point (–3, –2) in the x-axis lies in _____ quadrant.
9. Plot the following points and write the name of the figure obtained: P(–3, 2), Q(–7, –3), R(6, –3), S(2, 2).
10. Represent $\sqrt{3}$ on the number line.

PROJECTS

1. Create a project on Applications of Algebraic Identities in Day-to-Day Life. (A4 Sheets)
2. Design a MATHS AROUND US INFOGRAPHIC – use vibrant colours, diagrams and clear headings to explain how real-world objects relate to your textbook chapters. (A3 Sheet)
3. Draw a concept mind map on the topic NUMBER SYSTEM on an A4 size sheet.

SCIENCE

PHYSICS

General Instructions:

- Complete the work neatly in your Physics notebook.
- Draw diagrams and graphs with pencil and scale.
- Show complete calculations with proper units.
- Attempt all questions in sequence.
- Revise concepts regularly.

SECTION A – Exploration

Q1. Physics in Daily Life

Identify any five examples of Newton's Laws of Motion from everyday life. For each write:

- Situation
- Which law?
- Explanation

Example: Seat belts in cars → Newton's First Law

SECTION B – Derivation Practice

Q2. Graph-Based Derivation

Using Velocity–Time graph, derive:

- First equation of motion
- Second equation of motion
- Third equation of motion

Also write units of each quantity involved.

SECTION C – Numerical Practice

Q3. Solve all with complete steps.

- A car starts from rest and acquires a velocity of 20 m/s in 5 s. Find: a) Acceleration b) Distance covered
- An object starts from rest and covers 98 m in 7 seconds. Find acceleration.

SECTION D – Graph Skills

Q4. Draw the following graphs and answer questions.

Case 1: Velocity increases uniformly from 0 to 20 m/s in 10 s.

Find: a) Acceleration b) Distance covered using graph

Case 2: A car moves at constant velocity of 15 m/s for 8 s and then stops in next 4 s.

Draw velocity-time graph and calculate total displacement.

SECTION E – Force and Laws of Motion

Q5.

Why do cricket players pull their hands backward while catching a fast-moving ball? Explain in three points using: Momentum, Force, and Time relation.

Advanced Numerical Practice – Motion (Challenge Zone)

Q6.

A train starts from rest and accelerates uniformly at 0.5 m/s^2 for 40 s. It then travels at constant speed for 60 s, after which brakes are applied and it comes to rest in 20 s.
Find: a) Maximum velocity attained b) Total distance travelled c) Average speed for entire journey

Q7.

A car moving at 72 km/h sees an obstacle 100 m ahead. The driver takes 2 seconds to react before applying brakes. The car then decelerates uniformly at 4 m/s^2. Determine whether the car stops before hitting the obstacle.

Q8.

A body moving with velocity 8 m/s accelerates uniformly and covers 144 m in 8 s. Find: a) Acceleration b) Final velocity

Q9.

A metro train moving at 54 km/h slows uniformly and stops after covering 90 m. Find: a) Retardation b) Time taken to stop

Q10.

A particle starts from rest and covers: 20 m in first second, 40 m in second second, 60 m in third second. Determine whether motion is uniform or accelerated. Find acceleration.
(Hint: Compare distances covered in equal intervals.)

Learning Task

Revise and learn: Motion, Force and Laws of Motion, all derivations, formulae with units, and graph interpretation. Prepare a separate formula sheet.

Complete and practice your NCERT back exercise questions of Chapter 4 (Motion).
Note: Complete your science lab manual work.
“Students should complete the holiday homework independently without taking help from the internet, AI applications, or any online sources. The purpose is to encourage creativity, originality, and skill development.”

CHEMISTRY

Instructions:

- Complete the assignment in your Chemistry notebook.
- Diagrams must be drawn neatly with a pencil and labelled correctly.
- Support your answers with relevant examples and show calculations for numericals.

Conceptual Questions

1. Define mixture. How does a homogeneous mixture differ from a heterogeneous mixture? Give 3 examples of each from daily life.
2. What is the principle behind the process of centrifugation? Where is it used in daily life and in diagnostic labs?
3. Compare and contrast the separation techniques: distillation vs fractional distillation.
4. Why can't we separate the components of a compound by physical methods, but we can for a mixture? Explain with an example.
5. What is chromatography?
6. Describe the process of sublimation. Name two substances that sublime and mention one application of sublimation.
7. Explain the method to obtain pure water from seawater. Name the technique and draw a labelled diagram.
8. Define solubility. List 3 factors that affect the solubility of a solid in a liquid.

Numericals

9. 36 g of sodium chloride is dissolved in 100 g of water at 293 K. Find the concentration of the solution in terms of mass by mass percentage.
10. A solution contains 40 g of common salt in 320 g of water. Calculate the concentration in terms of mass by mass percentage of the solution.
11. Calculate the mass of sodium sulphate required to prepare its 20% (mass by mass) solution in 100 g of water.

12. Draw neat labelled diagrams of:

- Separating funnel for immiscible liquids
- Process of simple distillation
- Paper chromatography setup

Kitchen Chemistry Investigation

Observe the following:

- Preparing tea: separating tea leaves from tea using a strainer
- Making paneer: curdling milk with lemon juice

Answer:

a) Identify the separation technique used in each case.

b) Is the change physical or chemical? Explain.

c) What type of mixture was the initial material?

Fun with Learning

Crossword or Word Search Puzzle: Create a puzzle using key terms like: filtration, evaporation, sublimation, centrifugation, immiscible, miscible, solute, solvent, chromatography, residue, filtrate.

LEARNING CHECKLIST

- Revise all the topics before submission
- Types of mixtures: solutions, colloids, suspensions
- Physical vs chemical changes
- Diagram practice: all separation techniques
- Numericals on concentration and solubility
- Applications of separation techniques in daily life

BIOLOGY

Instructions:

- Complete the assignment in your Biology notebook.
- Diagrams must be drawn neatly with a pencil and labelled correctly.
- Support your answers with relevant examples where necessary.

Conceptual Questions

1. Define Osmosis. What happens to a plant cell when placed in a hypotonic solution? Support your answer with a diagram.

2. Why is the Plasma Membrane called a 'Selectively Permeable Membrane'?

3. Compare and contrast Prokaryotic cells and Eukaryotic cells. (Use a tabular format for your answer.)

4. Why are plant cells generally larger than animal cells?

5. Why do red blood cells not have a nucleus, even though cells usually possess one?

6. Describe the structure and functions of the Nucleus. Why is it referred to as the 'Control Center' of the cell? If the nucleus is removed from a cell, predict what may happen. Give reasons.

7. Explain the function of Golgi Apparatus in the cell. Mention its role in the formation of lysosomes.

8. Define Plasmolysis. What is its significance in plant cells?

9. Draw neat labelled diagrams of:

- Plant cell
- Animal cell

Kitchen Biology Investigation

10. Observe the following:

- Raisins in water
- Dry peas soaked overnight

Answer:

a) What changes do you observe?

b) Which process is involved?

Fun with Learning

11. Crossword or Word Search Puzzle: Create a puzzle using key terms like: nucleus, mitochondria, cell wall, ribosome, cytoplasm, vacuole, etc.

Creative Project (Activity)

12. Model Making: Create a 3D model of either a Plant Cell or an Animal Cell using eco-friendly materials (clay, cardboard, waste materials, etc.). Label all major organelles clearly.

Learning Checklist

- Revise all the topics before submission

- Cell organelles and their functions
- Diagram practice (plant cell, animal cell, onion peel, cheek cell)

SOCIAL SCIENCE

Note: You have to do all work in a single notebook.

- Map work: Label and locate states and union territories with their capitals on India Map and paste in your notebook.
- Write about a local historical place in your district.
- Write 20 lines on World Environment Day (5 June).
- "Democracy is considered better than other forms of government." Justify the statement.
- Write about the features of Democracy.
- Explain the major causes of floods in India and suggest effective flood management measures.
- What are the main functions of the Election Commission of India?
- What are the challenges to free and fair elections in India?
- Explain the scope of Social Science.
- Explain types of Weathering.
- Write a note on International Day of Yoga (21st June).
- Write 5 news headlines daily in your Notebook.

INFORMATION TECHNOLOGY

1. Learn and Complete all that has been taught till now.

UNIT – 1: Communication Skills – I (COMPLETE)

UNIT – 2: Digital Documentation (COMPLETE)

2. Activity:
   - Editing a document
   - Formatting text
   - Changing text case

3. Project Work from Chapters:
   - Creating a document

- Parts of the Writer window
- 20 Shortcut keys
- Editing the document: Undo and Redo, Moving and Copying text, Copy and Paste, Selecting text

4. Make a PowerPoint Presentation on the topic:
   - Find and Replace, Checking Spelling and Grammar

Note: Write minimum 150 MCQ in Fair Notebook from Digital Documentation and Communication Skills.