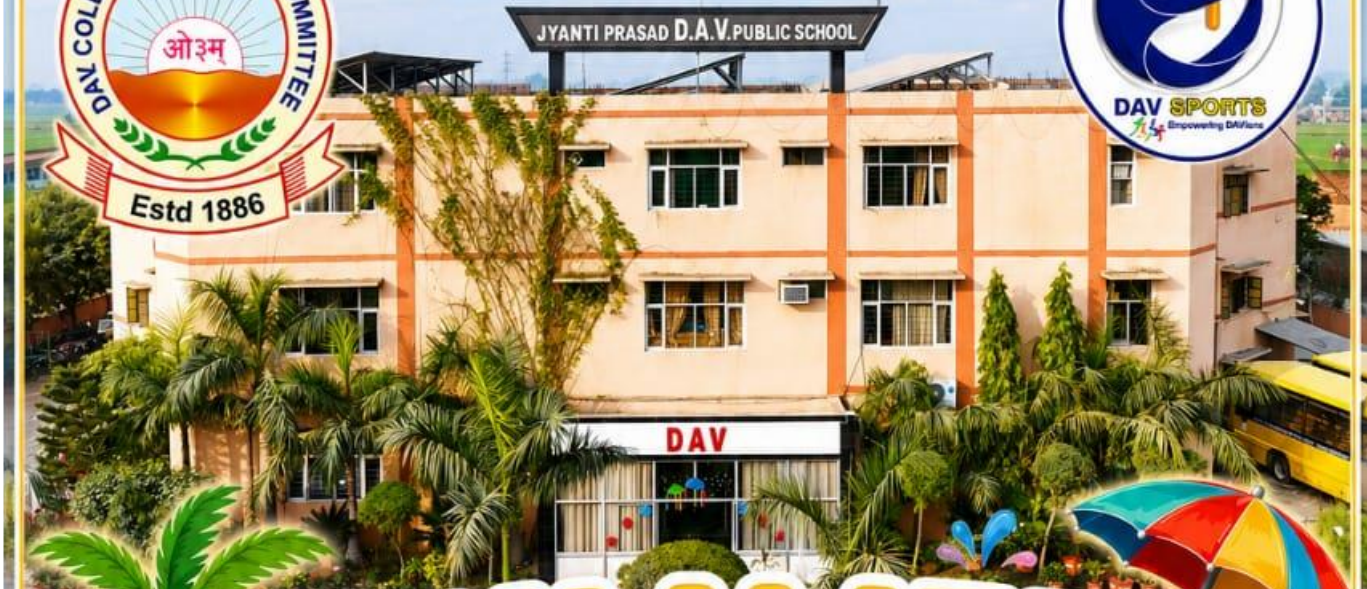




JYANTI PRASAD
D.A.V. PUBLIC SCHOOL
• GANAUR •



SUMMER
HOLIDAYS'
HOMework



CLASS:

SESSION 2026-27

DATE: 25 MAY 2026 TO 30 JUNE 2026



Email: jpdavganaur@yahoo.com
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Contact No.: 9468043075



GARHI JHANJHARA ROAD, GANAUR
 Sonipat, Haryana – 131101

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:

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?

(70 words each)

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 'बड़े भाई साहब पाठ के आधार पर लेखक ने हमारी शिक्षा प्रणाली पर क्या व्यंग्य किया है और कैसे स्वरूप की अपेक्षा की है?

प्रश्न:-226 जनवरी 1931 का दिन कलकत्ता के इतिहास में अविस्मरणीय क्यों था ?

प्रश्न:-3 कस्तूरी के विषय में जानकारी प्राप्त की जाए और लिखिए।

प्रश्न:-4 हरिहर काका पाठ में जीवन मूल्य आधारित घटनाओं का प्रवाह संचित्र तैयार की जाए।

प्रश्न:-5 कबीर की साखियों द्वारा कौन-कौन सी नीति परख बातें सीखने को मिलती हैं अपने शब्दों में बताइए।

प्रश्न:-6 'लोकतांत्रिक चुनाव' एवं 'सोशल मीडिया का बढ़ता प्रभाव' विषय पर अनुच्छेद लिखिए।

प्रश्न:-7 अपने क्षेत्र की पेयजल की समस्या से अवगत कराने हेतु दैनिक जागरण के संपादक को पत्र लिखिए।

प्रश्न:- 8 'शक्तदान महादान' विषय पर विज्ञापन तैयार की जाए।

प्रश्न:- 9 आपके विद्यालय में वीर रस पर आधारित कविता गायन प्रतियोगिता का आयोजन किया जाना है इस संबंध में 30-40 शब्दों में सूचना लिखिए।

परियोजना कार्य

- कबीर के जीवन एवं साखियों पर आधारित परियोजना तैयार की जाए। (सेक्शन ए के लिए)
- स्वतंत्रता आंदोलन में किन्हीं दो महिलाओं के योगदान पर आधारित परियोजना तैयार की जाए। (सेक्शन बी के लिए)
- महावरों का चित्र माध्यम से वाक्य प्रयोग आधारित परियोजना तैयार की जाए। (सेक्शन सी के लिए)

MATHEMATICS

CHAPTER 1

(REAL NUMBERS)

1. Prove that $\frac{2-\sqrt{3}}{5}$ is an irrational number , given $\sqrt{3}$ is an irrational number.
2. Three bells rung at intervals of 6, 12 and 18 minutes . If all the three bells rang at 6 AM, when will they ring together again.
3. Find the least number that is divisible by 20,24 and 32
4. Find the greatest number which divides 85 and 72 leaving remainders 1 and 2 respectively.

CHAPTER 2

(POLYNOMIALS)

1. If the product of zeroes of the polynomial $ax^2 - 6x - 6$ is 4, find the value of a.
2. If one zero of the polynomial $6x^2 + 37x - (k-2)$ is reciprocal of the other then find value of k.
3. Find zeroes of polynomial $x^2 + \frac{1}{6}x - 2$ and verify the relation between zeroes of polynomial and coefficients .
4. Find a quadratic polynomial sum and product of whose zeroes are $\sqrt{2}$ and $\frac{-3}{2}$ respectively . Also , find its zeroes.

CHAPTER 3

(PAIR OF LINEAR EQUATION IN TWO VARIABLES)

1. I am three time as old as my son. Five years later, I shall be two and a half times as old as my son. How old am I and how old is my son?
2. Solve the system of equations by using elimination method
$$\frac{x}{10} + \frac{y}{5} + 1 = 15, \frac{x}{8} + \frac{y}{6} = 15$$
3. For what value of k ,the following system of linear equations have infinitely many solutions?
$$2x + 3y = 4$$
$$(k + 2)x + 6y = 3k + 2$$
4. A fraction is such that if the numerator is multiplied by 3 and is the denominator is reduced by 3, we get $\frac{18}{11}$, but if the numerator is increased by 8 and denominator is doubled , we get $\frac{2}{5}$. Find the fraction.
5. The ratio of incomes of two persons is 9:7 and the ratio of their expenditure is 4 :3 . If each of them saves rs.200 per month , find their monthly incomes.

CHAPTER 4

(QUADRATIC EQUATIONS)

1. Factorise $4\sqrt{3}x^2 + 5x - 2\sqrt{3}$

2. Solve for x : $\frac{x-1}{x+2} + \frac{x-3}{x-4} = \frac{10}{3}$

3. Find the value of k for which the equation has equal roots

$$2kx^2 - 40x + 25 = 0$$

4. The sum of two numbers is 15 . if the sum of their reciprocals is $\frac{3}{10}$, find the number.

5. The speed of the boat in still water is 15km/hr. It can go 30km upstream and return downstream to the original point in 4 hours 30 minutes .Find the speed of the train.

Activity:

- Do project on π -WORLD'S MOST MYSTERIOUS NUMBER creatively.
- Chronology of Indian Mathematicians with their contributions
- Research and make a project on GOLDEN RECTANGLE AND GOLDEN RATIO.

SCIENCE

PHYSICS

Chapter: LIGHT – REFRACTION AND LENSES

General Instructions

1. Complete all work in your Physics notebook.
2. Draw ray diagrams using pencil and scale.
3. Show complete steps in numerical.
4. Use sign convention wherever applicable.
5. Mention formula, substitution and unit in each numerical.

SECTION A – Concept Revision

Q1. Concept Builder

Answer briefly (according to 1-2 marks):

1. Why does a pencil partially immersed in water appear bent?
2. Why is a swimming pool appearing shallower than its actual depth?
3. Why does light bend when entering another medium?
4. Why is speed of light different in different media?

SECTION B – Ray Diagram Practice

Q2.

Draw ray diagrams for(Convex lens) :

1. Object at infinity
2. Object beyond 2F
3. Object at 2F

4. Object between F and 2F
5. Object at F
6. Object between F and optical centre

For each mention:

- Nature of image
- Position
- Size

Q3.

Draw ray diagrams for concave lens for:

1. Object at infinity
2. Object at any finite distance

Q4.

Prepare **one-page formula chart** including:

- Lens formula
- Magnification
- Power formula
- Refractive index
- Unit conversions

Decorate creatively.

SECTION D –Numericals

Solve all questions.

Q5.

An object is placed at **30 cm** from a convex lens of focal length **20 cm**.

Find:

- a) Image distance
- b) Magnification
- c) Nature of image

Q6.

An object of height **2 cm** forms an image of height **6 cm** at **45 cm**.

Find:

- a) Magnification
- b) Object distance

Q7.

Two thin lenses of powers **+2D** and **+3D** are combined.

Find:

- a) Total power
- b) Focal length of combination

Q8.

A lens has focal length **-50 cm**.

Find its:

- a) Power
- b) Type of lens

Q9.

An object placed at **25 cm** from a convex lens forms image of same size.

Determine focal length.

SECTION E – Application-Based Questions

Q10.

State which lens is used and explain reason:

- a) Camera
- b) Human eye
- c) Magnifying glass
- d) Microscope
- e) Telescope
- f) Spectacles for myopia
- g) Spectacles for hypermetropia
- h) Door viewer (peephole)

Q11.

An object **4 cm** tall is placed in front of a lens at **20 cm**. The image formed is **8 cm** tall and inverted.

Find:

- a) Magnification
- b) Image distance
- c) Focal length
- d) Identify the type and nature of lens

Q12.

An object of height **5 cm** placed at **30 cm** from a lens forms an image of height **1 cm**.

Image is erect.

Find:

- a) Magnification
- b) Image distance
- c) Focal length
- d) Identify the lens

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.
- Support your answers with relevant examples and show steps for balancing equations.
- For activities, note observations and write chemical equations involved.

Conceptual Questions

1. What is a chemical reaction? List 5 observations that help us determine whether a chemical reaction has taken place. Give one example for each.
2. Define and explain the following types of chemical reactions with one balanced equation each:
 - a) Combination reaction
 - b) Decomposition reaction
 - c) Displacement reaction
 - d) Double displacement reaction
3. What is a redox reaction? Identify the substance oxidised and reduced in: $\text{CuO} + \text{H}_2 \rightarrow \text{Cu} + \text{H}_2\text{O}$
4. Why is respiration considered an exothermic reaction? Write the balanced equation for aerobic respiration.
5. Explain the following with examples:
 - a) Why do we apply paint on iron articles?
 - b) Why are oil and fat containing food items flushed with nitrogen?
6. What is corrosion? Write the chemical formula of rust. List two ways to prevent corrosion of iron.
7. What is rancidity? How can rancidity be prevented? Mention two methods.
8. Why should magnesium ribbon be cleaned before burning in air? Write the balanced equation for the reaction.

Balancing Equations

9. Balance the following chemical equations:
 - a) $\text{Fe} + \text{H}_2\text{O} \rightarrow \text{Fe}_3\text{O}_4 + \text{H}_2$
 - b) $\text{BaCl}_2 + \text{Al}_2(\text{SO}_4)_3 \rightarrow \text{BaSO}_4 + \text{AlCl}_3$
 - c) $\text{Pb}(\text{NO}_3)_2 \rightarrow \text{PbO} + \text{NO}_2 + \text{O}_2$
 - d) $\text{C}_3\text{H}_8 + \text{O}_2 \rightarrow \text{CO}_2 + \text{H}_2\text{O}$

10. Write balanced chemical equations for the following reactions:
- Calcium hydroxide + Carbon dioxide \rightarrow Calcium carbonate + Water
 - Zinc + Silver nitrate \rightarrow Zinc nitrate + Silver
 - Aluminium + Copper chloride \rightarrow Aluminium chloride + Copper
11. Translate and balance: "Sodium reacts with water to form sodium hydroxide and hydrogen gas."
12. Draw neat labelled diagrams of:
- Electrolysis of water
 - Activity to show that oxidation is the gain of oxygen
 - Reaction of zinc granules with dilute sulphuric acid

Kitchen Chemistry Investigation

13. Observe the following:
- Cutting an apple and leaving it exposed to air
 - Adding vinegar to baking soda in a test tube
 - Heating sugar in a china dish

Answer:

- What changes do you observe in each case?
- Identify the type of chemical reaction taking place.
- Write balanced chemical equations wherever possible.

Fun with Learning

14. Crossword or Word Search Puzzle:

Create a puzzle using key terms like: reactant, product, oxidation, reduction, exothermic, endothermic, corrosion, rancidity, precipitation, catalyst, decomposition

LEARNING CHECKLIST

- Revise all topics before submission
- Writing and balancing chemical equations
- Types of chemical reactions with examples
- Effects of oxidation in daily life: corrosion and rancidity
- Diagram practice: all activities from NCERT

BIOLOGY

General Instructions:

- Present your work neatly in a dedicated biology notebook.
- Label all diagrams meticulously with a pencil.
- This assignment aims to test your conceptual understanding, analytical thinking, and creativity.

Section A: Case-Based & Analytical Thinking

- Read the passage and answer the questions that follow:
A patient visits a clinic complaining of chronic fatigue, dizziness, and shortness of breath during light exercise. The doctor orders a blood test, which reveals a significantly low hemoglobin count. The doctor explains that hemoglobin is crucial for transporting a vital gas from the lungs to the rest of the body, and its deficiency is directly impacting the patient's cellular energy levels.
 - Identify the medical condition the patient is likely suffering from.
 - Explain the link between low hemoglobin levels and the patient's symptom of chronic fatigue using the concept of cellular respiration.

- c. How does the transport of this gas differ between humans and single-celled organisms like Amoeba?
- Why is the rate of breathing in aquatic organisms much faster than that seen in terrestrial organisms? Explain the physiological reason.
 - If the pancreatic duct of a person is blocked surgically, which major food components will fail to digest properly? Justify your answer by mentioning the specific enzymes involved.
 - Leaves of a healthy potted plant are coated with Vaseline. Will this plant remain healthy for long? State three distinct physiological processes that will be severely disrupted.
 - Compare the structure and functioning of Alveoli in the lungs and Nephrons in the kidneys. Present your answer using a comparative layout.

Section B: Assertions & Core Concepts

- Assertion (A): Bile juice contains no digestive enzymes, yet it is essential for digestion.
Reason (R): Bile juice emulsifies fats, breaking large globules into smaller ones to increase lipase efficiency.
- Assertion (A): The walls of ventricles are thicker than those of atria.
Reason (R): Ventricles have to pump blood into various organs at much higher pressure.
- Trace the pathways of breakdown of glucose by various pathways in living organisms. Create a detailed flow chart representing aerobic, anaerobic, and lack of oxygen pathways.
- Why is 'Double Circulation' necessary in human beings? How does it help warm-blooded animals maintain their body temperature?
- Explain the mechanism of urine formation in the human kidney, explicitly highlighting the roles of Ultrafiltration, Selective Reabsorption, and Tubular Secretion.
- Design a schematic diagram showing the cross-section of a human heart. Color-code the chambers containing oxygenated blood (Red) and deoxygenated blood (Blue).

Section C: Practical & Experiential Activities

Choose **ANY ONE** of the following simple, hands-on activities:

- Activity 1: Breathing Rate Tracker**
Sit quietly and count your number of breaths in 1 minute. Record this as your 'Resting Breathing Rate'. Now, do 30 jumping jacks or spot running for 1 minute, and immediately count your breaths for another minute. Record this as your 'Active Breathing Rate'. Repeat this with one family member, note down the numbers in a small table, and write a 2-line conclusion on why the breathing rate changes.
- Activity 2: Starch Leaf Poster / Diagram Concept**
Draw a neat, creative 'Concept Map' or single-page chart illustrating the experiment to show that 'Light is necessary for Photosynthesis' (the Iodine test on a leaf). Use different colored sketch pens to clearly show the steps: boiling in water, decoloring in alcohol, and the final blue-black color change. No special materials needed!
- Write all your biology practicals in the lab manual.

SOCIAL SCIENCE

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

- Every Student has to Compulsorily undertake any one Project on the following topics:**
 - Consumer Awareness
 - Social Issues
 - Sustainable Development
- Write about a local historical place in your district.
- Write 20 lines on World Environment Day (5 June)

4. Make an Interdisciplinary project on any one: -

- Globalization and the Indian Economy
- The making of a Global World

5. List the Changes brought under the Napoleonic code.

6. Write a note on Giuseppe Mazzini and his ideology.

7. Who was Otto von Bismarck? Write about his contribution.

8. What was the key issue addressed at Rio de Janeiro Earth Summit held in 1992?

9. How many types of soil are found in India? Explain its features on **A-4 sheets.**

10. What demands were made by the Tamil protesters?

11. What steps are being taken by the government to bring about national development?

12. Write 5 news headlines daily in your Notebook.

INFORMATION TECHNOLOGY

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

UNIT – ICommunication Skills – II

Session 1	Methods of Communication 1
Session 2	Verbal Communication 7
Session 3	Non-verbal Communication 10
Session 4	Communication Cycle and Importance of Feedback 16
Session 5	Barriers to Effective Communication 20
Session 6	Writing Skills — Parts of Speech 24
Session 7	Writing Skills — Sentences 31

UNIT – I Digital Documentation (Advanced)

Chapter 1. Applying Styles in a Document

Chapter 2. Adding Graphics in a Document

Chapter 3. Working with Templates

Find out any 150 one word question answers/ MCQ from these chapters and write in your

Fairnotebook.

2. Activity :Check the name of the Antivirus software installed in your computer/Laptop.

Scan the drive to Check for Virus. Write a note on your IT Fair notebook.

3. Project Work from DIGITAL DOCUMENTATION (ADVANCED)

Apply styles in the document, Components of Open Office Writer, Edit the document (Checking Spelling and Grammar, Changing Text case, Paragraph Alignment) Using a Template to create a document. How to use an antivirus Software ?
(Note: It must be for every student to prepare a Project file / Student Portfolio)

4. Make a PowerPoint Presentation on the topic: - Online Transitions, advantages and Disadvantages of E-shopping email it on Section B
(jitenderkumar@jpdavganaur.org) butSection A and C
(sanjeetvats@jpdavganaur.org)