D.A.V. POLICE PUBLIC SCHOOL FATEHABAD

CLASS- IX

Holiday Homework Guidelines:-

"Success doesn't come from what you do occasionally, it comes from what you do consistently."
— Marie Forleo
Follow these simple steps for a stress-free holiday homework experience:
1. Be Neat: Write clearly and present your work well.
2. Be Original: Use your own ideas—avoid copying.
3. Be Smart: Divide your work over days, don't pile it up.
4. Be Creative: Add pictures, diagrams, or charts if suitable.
5. Be Organized: Label your work with name, class, and subject.
6. Be On Time: Submit all homework on the very first day after holidays.

English

1. Creative Writing Journal (Choose Any 3-4 Tasks)

Maintain a journal with creative entries (1–2 pages each):

- A story that starts with: *"I never expected the letter to change my life..."*
- A diary entry from the perspective of a tree witnessing deforestation
- A humorous poem titled: *"When My Internet Went Missing"*
- An alternate ending to a fairy tale (e.g., What if Cinderella didn't go to the ball?)
- A letter to your favorite author explaining how their work inspired you

2. Literature-Based Activities

A. Textbook Story Reflection
Choose **any two literature pieces** from your **Beehive** or **Moments** textbook and complete the following for each:

- Summarize the story or poem in your own words
- Identify the central theme and explain it briefly
- Choose your favorite quote or line and explain why it stood out
- Create a small comic strip or visual representation of a key scene

B. Character Diary
Write a **diary entry** from the point of view of **any one character** in a textbook story or poem (e.g., Margie from *The Fun They Had* or the narrator from *The Lost Child*). Show their thoughts, feelings, or what happens next in their life.

3. Book Review – Free Choice Reading

Choose **any English novel/storybook** (outside the textbook), read it during the break, and submit a review including:

- Title, author, genre
- A short summary
- Your opinion on the characters and writing style
- What message you took away from the book
- A creative book cover or bookmark design based on the story

4. BONUS (Optional but Encouraged): "My Audio Story"

Record yourself reading a short story, monologue, or poem with expression and emotion. Focus on pronunciation and voice modulation. You can perform an extract from the textbook too!

हिंदी

पाठ 1 दो बैलों की कथा

कविता 1 -साखियाँ एवं सबद

व्याकरण- अर्थ के आधार पर वाक्य –भेद

लेखन-कौशल अनुच्छेद –लेखन

पाठ्यक्रम का लिखित अभ्यास करके पुनरावृत्ति करें |

परियोजना कार्य –

*प्रेमचन्द जी के समय में भारतीय किसान की स्थिति व वर्तमान समय में

भारतीय किसान की स्थिति का वर्णन चित्र सहित करें |(अनुक्रमांक 1 से 15)

* भारतवर्ष के सभी राज्यों की भौगोलिक स्थिति का चित्र सहित वर्णन करें |(अनुक्रमांक 16 से 35)

MATHEMATICS

Theme: "Math in Real Life"

Instructions:

- Use A4 or scrapbook sheets.
- Choose **any 5 out of the 6 activities** listed below.
- Include proper headings, diagrams, and observations.
- Be creative! Use colors, graphs, charts, or pictures wherever needed.

- Submit your work in a neat and well-organized manner.

Activity 1: A Hands-On Identity Tour

Objective: To understand the geometric and visual meaning.
What to Do:

- Choose any 5-6 identites.
- Gather materials, build the model.
- Label and decorate it.

Activity 2: Math Mandala

Objective: To create a mandala using geometrical patterns.
What to Do:

- Use compass and ruler to draw a symmetrical mandala.
- Incorporate circles, angles, sectors, and triangles.
- Highlight the symmetrical properties and explain the math used.

Activity 3: Budget Your Vacation

Objective: Use rational numbers and data handling in a real-world context.
What to Do:

- Plan a 3-day vacation for your family (real or imaginary).
- Prepare a budget under ₹5,000 using a table.
- Include travel, food, stay, and shopping expenses.
- Use pie chart/bar graph to show budget distribution.

Activity 4: Survey and Statistics

Objective: To learn data collection and representation.
What to Do:

- Conduct a survey among 10 friends or family members (e.g., favorite sport, hours spent on screen).
- Create a frequency table.
- Represent the data using a bar graph or histogram.

Activity 5: Stained Glass Painting

Objective: Apply algebra to solve real-world problems.
What to Do:

- Create your own unique window design.
- Find a solution of given linear equation.
- Plot that points on graph paper and joined them.
- Write all the concept used to make this activity.

S.NO.	EQUATIONS
1	y= -1/4 + 5
2	y = 2x + 18
3	y = ¼ x - 6
4	y = 6
5	y = - x
6	X = 2
7	y = - 9
8	x = 9
9	y = - 2x +8
10	y = - x + 12
11	y = 2x - 7
12	x = -5

Activity 6: Bonus Challenge: Math Puzzle Creation

Objective: Boost logical thinking.
What to Do:

- Create 3 original math puzzles (number riddles, magic squares, pattern sequences).
- Provide solutions with clear reasoning.

❖ Complete Mathematics Lab Manual Activity – 1 and 2.

❖ Solve all ncert examples of chapter 1 to 4 in holiday homework notebook.

❖ Do the given worksheet **:**

- Write in which quadrant/ axis these points lies : (5 , -5) , (0, -1) , (-5, -3) , (4 , 0) , (1 , -3) .
- Also find the image of the points along x- axis and y-axis : (0,1) , (-1,-3) ,(1 ,2),(3 , -4),(6 , -3).
- Find the perpendicular distance of the points from x- axis (5 , -5) , (0, -1) , (-5, -3) , (4 , 0).
- Write in the p/q form : (a) 0.454545.... (b) 2.367777...
- Represent on number line : √8 , √13 , √11.3
- If a = 2 + √3 , then find : $a + \frac{1}{a}$, $a^2 - \frac{1}{(a)^2}$, $a^2 + \frac{1}{a^2}$, $a^3 + \frac{1}{a^3}$
- Find a and b : (1) $\frac{(3+\sqrt{2})}{3-\sqrt{2}} = a + b\sqrt{2}$

Find a and b: $\frac{(\sqrt{11}+\sqrt{7})}{\sqrt{11}-\sqrt{7}} = a + b\sqrt{77}$

CHEMISTRY

- Design a science journal page titled 'The Mystery of changing states.' Include definitions, diagram.
- Do NCERT exercise questions of chapter 1(matter in our surrounding) .
- Do NCERT exercise questions of chapter 2 (Is matter around us pure).
- Revise activities performed in the lab.

BIOLOGY

- **Students having EVEN roll numbers will make 3D model on PLANT CELL. Students having ODD roll numbers will make 3D model on ANIMAL CELL.**
- **Read and learn chapter 5 (fundamental unit of life) from NCERT. Write the Answers the following questions on your notebook after reding the chapter.**

1) What is hypertonic, hypotonic and isotonic solution?
2) What is endocytosis? Why is endocytosis found in animals only?
3) Name two structures found in plant cells but not in animal cells.
4) Which cell organelle controls most of the activities of the cell?
5) There would be no plant life if chloroplasts did not exist. Justify.
6) Why is the Golgi apparatus called the secretary organelle of the cell?
7) What is the significance of pores present on the nuclear membrane?
8) Do you agree "A cell is a building unit of an organism". If yes, explain why.
9) If you are provided with some vegetables to cook, you generally add salt into the vegetables. After adding salt, vegetables release water. Why?
10) How are chromatin, DNA,genes and chromosomes related to each other?
11) Differentiate between diffusion and osmosis.
12) Differentiate between rough and smooth endoplasmic reticulum. How is endoplasmic reticulum important for membrane biogenesis ?
    HINT: Endoplasmic reticulum act as main site for synthesis of protein and lipids which are needed for the biogenesis of plasma membrane.
13) What is cell division? Give the types of cell division.
14) What are the functional differences between a plasma membrane and cell wall?
15) How will absence of any one of the cell organelle affect the cell's working?
16) Draw a neat diagram of plant cell and label any three parts which differentiate it from animal cell.
17) Draw a labelled diagram of mitochondria. Write the functions of mitochondria.
18) What is active transport? Differentiate between active and passive transport.
19) In brief state what happens when:
    (a) dry apricots are left for sometime in pure water and later transferred to sugar solution?
    (b) a red blood cell is kept in concentrated saline solution?
    (c) the plasma membrane of a cell breaks down?

(d) Rheo leaves are boiled in water first and then a drop of sugar syrup is put on it?
(e) Golgi apparatus is removed from the cell?

20) Why does the skin of your finger shrink when you wash clothes for a long time?
21) What are the colors absorbed by plants? The green light of the sunlight is blocked. How will the photosynthesis be affected?
22) A person takes concentrated solution of salt, after sometime, he starts vomiting. What is the phenomenon responsible for such situation
23) What do you mean by luminal and extraluminal space ? which organelle create these spaces in cell? what is the advantage of this separation?
24) Draw a well laebelled diagram of nucleus.

Physics

1) Revise chapter-7(Motion) and chapter-8 (force and laws of motion).
2) Make a chart on topic graphs of motion.
3) Solve Worksheets given.
4) Do NCERT exercise questions of chapter 7 and chapter 8.

SOCIAL SCIENCE:

Prepare a mind map of chapters (**Geography** - 1,2,3 **History** - 1. **Civics** - 1,2. **Economics** - 1,2) that we covered in April and May.
*Revision of UT syllabus

Project on Disaster Management:

* Prepare case studies on natural or man-made disasters (earthquakes, floods, etc.).
* Suggesting mitigation and preparedness measures.
* Role of government and community in disaster management.

PUNJABI:

Reader :

ਪਾਠ ਜਨਮ ਦਿਨ , ਸਾਂਝੀ ਕੰਧ , ਕਵਿਤਾ ਸਮਾਂ ਅਤੇ ਵਿਸਾਖੀ ਦਾ ਮੇਲਾ ਦੇ ਪ੍ਰਸ਼ਨ ਉੱਤਰ ਯਾਦ ਕਰੋ ।

Activity :

ਪੰਛੀਆਂ ਅਤੇ ਹੋਰ ਜੀਵਾਂ ਲਈ ਮਨ ਵਿੱਚ ਹਮਦਰਦੀ ਦੀ ਭਾਵਨਾ ਰੱਖੋ ਤੇ ਛੱਤ ਉੱਤੇ ਉਹਨਾਂ ਲਈ ਦਾਣੇ ਅਤੇ ਪਾਣੀ ਪਾਓ।

ਦਸਾਂ ਗੁਰੂ ਦੀਆਂ ਤਸਵੀਰਾਂ ਕ੍ਰਮ ਅਨੁਸਾਰ ਚਿਪਕਾਓ ਅਤੇ ਉਹਨਾਂ ਬਾਰੇ ਪੰਜ -ਪੰਜ ਵਾਕ ਕਾਪੀ ਵਿੱਚ ਲਿਖੋ।

ਕਿਸੇ ਇੱਕ ਚਿੱਤਰ ਤੇ 50 ਸ਼ਬਦਾਂ ਵਿੱਚ ਚਿੱਤਰ ਵਰਨਣ ਕਰੋ।

ਇਕ ਜੂਨ ਤੋਂ 30 ਜੂਨ ਤੱਕ ਦੀਆਂ ਦੋ ਮੁੱਖ ਖਬਰਾਂ ਰੋਜਾਨਾ ਆਪਣੀ ਕਾਪੀ ਵਿੱਚ ਲਿਖੋ।

Grammar :

ਵਿਰੋਧੀ ਸ਼ਬਦ (1-56), ਲਿੰਗ ਬਦਲੋ (1-50), ਉ ਅਤੇ ਅ ਵਾਲੇ ਮੁਹਾਵਰੇ ਪੱਕੀ ਕਾਪੀ ਲਿਖੋ ।

ਪੱਤਰ:- ਸਮਾਜ ਵਿੱਚ ਵੱਧਦੀ ਹੋਈ ਅਸੁਰੱਖਿਆ ਸੰਬੰਧੀ ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖੋ, ਤੁਹਾਡੇ ਇਲਾਕੇ ਵਿੱਚ ਬਿਜਲੀ ਸੰਕਟ ਅਤੇ ਉਸ ਤੋਂ ਪੈਦਾ ਹੋਈਆਂ ਮੁਸ਼ਕਿਲਾਂ ਨੂੰ ਬਿਆਨ ਕਰਦੇ ਹੋਏ ਕਿਸੇ ਅਖਬਾਰ ਦੇ ਸੰਪਾਦਕ ਨੂੰ ਪੱਤਰ ਲਿਖੋ ਅਤੇ ਬੇਨਤੀ ਕਰੋ ਕਿ ਉਹ ਸਰਕਾਰ ਦਾ ਧਿਆਨ ਦਬਾ ਕੇ ਇਸ ਸੰਕਟ ਤੋਂ ਛੇਤੀ ਤੋਂ ਛੇਤੀ ਛੁਟਕਾਰਾ ਦਿਵਾਏ ।

ਲੇਖ:- ਭਗਤ ਸਿੰਘ , ਸ੍ਰੀ ਗੁਰੂ ਗੋਬਿੰਦ ਸਿੰਘ ਜੀ ਦੀ ਤਸਵੀਰ ਬਣਾਓ / ਚਿਪਕਾਓ ਅਤੇ ਉਹਨਾਂ ਸਬੰਧੀ ਲੇਖ ਲਿਖੋ।

SANSKRIT

मणिका - पाठ 01,02 व पाठ 04 तक अभ्यास सहित याद करें।

शब्दरूप : राम, लता, फल के साथ अस्मद्, युष्मद् तथा तत्, एतत् व किम् के शब्दरूप (तीनों लिंगों में) लिखें व याद भी करें।

धातुरूप: भू, पठ्, गम्, अस् , कृ धातु पांचों लकारों में लिखें व याद भी करें।

(संस्कृत व्याकरण के किसी एक पाठ्यबिंदु पर पोर्टफोलियो बनाएं।)

Home Science

1. Learn Unit 1(Concept, Scope and Recent Trends of Home Science), Unit 2 (Human Growth and Development), Unit 3 (Family and Values with written practice

2. Complete Practical File Work

3. Make a collage on the role of family members.

4. Design one educational play material for the cognitive, physical and motor development of a 3 year old child

5. Make a portfolio on principles of growth and development.

6. Make a food pyramid by using the available material (Mention- Nutrients and their function)

**ARTIFICIAL INTELLIGENCE **

Activity 1: Write a letter/ an email to future self.

1. Imagine your future in the 2050 year (related to AI).

2. Type a letter or an email to your future self about what you want to see in the future or what you want to remind to your future.

3. The following points can be included in letter/email:

a) Start with your interests, hobbies, and skills.

b) Relate how AI can help you

c) Write about your career you want to pursue and how AI will make an impact on that.

4. Save the letter/ email in PDF format and print / write , submit hard copy Activity

2: Write Pros and Cons of Artificial Intelligence

Activity 3: MCQs 3M

1. Artificial Intelligence is about_____.

a) Playing a game on Computer

b) Making a machine Intelligent

c) Programming on Machine with your Own Intelligence

d) Putting your intelligence in Machine

2. Who is known as the -Father of AI"?

a) Fisher Ada b) Alan Turing c) John McCarthy d) Allen Newell

3. Select the most appropriate situation for that a blind search can be used.

a) Real-life situation b) Small Search Space c) Complex game d) All of the above

4. If a robot is able to change its own trajectory as per the external conditions, then the robot is considered asthe__

a) Mobile b) Non-Servo c) Open Loop d) Intelligent

5. Which of the given language is not commonly used for AI?

a) LISP b) PROLOG c) Python d) Perl

6. A technique that was developed to determine whether a machine could or could not demonstrate the artificial intelligence known as the___

a) Boolean Algebra b)Turing Test c) Logarithm d) Algorithm