ARMY PUBLIC SCHOOL, CHANDIMANDIR

- Encourage regular physical activities to help your child stay fit and energetic.
- Introduce them to interesting storybooks to build imagination and language skills.
- Let your child spend time outside exploring nature and observing the world around them.
- Offer fun materials for drawing, painting, or creating handmade items.
- Motivate your child to write daily entries—it's a great way to express thoughts and practice writing.
- Try this fun DIY—paint and decorate rocks to turn them into cute "pets."
- Take time to look at the night sky, spot constellations, and talk about space.

ENGLISH

1. Creative Writing Challenge:
The Genius Within :
Imagine you are a scientist or thinker like Einstein. Write a short essay (150–200 words) on a discovery or idea that could change the world. Explain its impact and how it reflects your personality.

2. Literary Exploration – Connecting Texts to Real Life
Chapter: "A Truly Beautiful Mind" (Beehive
- Summarize Einstein's journey, highlighting his scientific achievements and humanitarian efforts
- Research a modern scientist or thinker who embodies Einstein's spirit. Compare their contributions and impact on society.
- Reflect on how Einstein's advocacy for *peace and non-violence is relevant today.

Ch- In the Kingdom of Fools (Moments)
- Identify a theme (e.g., resilience, friendship, societal challenges).
- Connect the theme to a real-life event or *personal experience.
- Write a short reflection on what lessons the text offers in today's world.

3. Creative Literary Project
Visual storytelling: Convert "A Truly Beautiful Mind" into a comic strip to depict Einstein's life.

4. Vocabulary & Expression Builder: Choose 10 new words from Beehive and Moments that you find interesting.
- Write their meanings and use each in original sentence

5. Critical Thinking Exercise:
Write a balanced analysis of the ongoing India-Pakistan tension.
- Discuss how conflicts affect ordinary people, education, and global peace efforts.
6. Revise PT1 syllabus.
7. Complete the pending work (if any)

MATHS

1) Do all solved examples of chapters 1 and 2 from NCERT Mathematics Textbook.
2) Practice chapters -1 and 2 from Mathematics Textbook by R D Sharma. (Students to solve minimum 30 Questions from each chapter).

Do all above questions in a separate Note-book.
Topics for self-study:
1) Chapter-3 Co-ordinate Geometry
2) Chapter -5 Euclid's Geometry
3) Activities:
a) Construct a Square-Root Spiral.
b) Use your creativity to make some beautiful patterns/ figures using the concept of Square Root Spirals.
c) Represent $\sqrt{6.3}$ on number line. Write the steps of construction.
d) Obtain the mirror image of a geometrical figure with respect to i) X- axis ii) Y- axis on a graph sheet. Write the co-ordinates of vertices of mirror images so formed.
(Geometrical figure) - Plot the points A(3,0), B(3,1) ,C(2,1),D(2,2), E(1,2), F(1,3) and G(0,3). Join the points to obtain the figure of a staircase)

Note - Students to do all above activities on loose A4 Sheets.

SOCIAL SCIENCE

1) The unseen scars- How war impact the common man?
* Choose a specific war or conflict from recent history (eg- The Syrian civil war or present situation of India - Pakistan condition)
* Displacement & refugees crisis

* Food insecurity & famine
* Healthcare
* Impact on Education

Instructions - Present your findings in a short report with clear heading, evidences from your research & your own analysis

2) The present status of Indus water Treaty -Write an article on the present status of Indus water Treaty in around 250 words highlighting the importance of treaty for water scarcity and the risks associated with its suspension.

Holiday Homework to be done in project file/ Notebook.

3) Topic to covered in self study
(Geo) Ch - 2 Physical features of India
(Civics) Ch -2 Constitutional design

4) Syllabus of Periodic Test - l
(His) Ch -1 The French Revolution
(Geo) Ch -1 India - size and location
(Geo) Ch -2 Physical features of India
(Civics) Ch -1 What is democracy? Why democracy?
(Eco) Ch - 1 The story of village Palampur

HINDI

1. भारत पाकिस्तान का विभाजन दोनों देशों के इतिहास की सबसे बड़ी घटना है किंतु इसके भयानक परिणाम आज भी हमारे सामने एक चुनौती के रूप में खड़े हैं। क्या होता यदि ये विभाजन ना हुआ होता? इस विषय पर अपने विचार अनुच्छेद के रूप में लिखिए ।
2. किसी भी देश की सुरक्षा-प्रणाली उस देश की धुरी होती है। इस बात को वर्तमान परिस्थिति में कैसे सार्थक माना जा सकता है? सकारात्मक पहलुओं पर विचार अनुच्छेद के रूप में लिखिए।
3. संचयन के पाठ 2 स्मृति तथा स्पर्श के पाठ एवरेस्ट: मेरी शिखर यात्रा को पढ़कर पाठ के अंत में दिए गए में दिए गए अभ्यास-प्रश्न करें।
4. आगे बढ़ती महिलाओं से संबंधित जानकारी एकत्र कर चित्र सहित उत्तर पुस्तिका में संग्रह कीजिए।
5. चाँद पर जाने वाले भारत तथा विश्व के पहले व्यक्ति के बारे में जानकारी प्राप्त कर चित्र सहित लिखें।
6. इकाई परीक्षा-I के पाठ्यक्रम की पुनरावृत्ति कीजिए।
7. अभी तक कक्षा में करवाए गए लिखित कार्य को उत्तर पुस्तिका में पूरा करें।

AI

1. Read, Think , Act and Plan :- Data Exploration, Modelling, Evaluation and Deployment. AI Ethics.
2. PPT will be shared with students to enhance the information related to the concerned topics.
3. Write and revise given Practice questions: (given below)
    1. How can AI be used as a tool to transform the world into a better place?
    2. Can you list down a few applications in your smartphone that widely make use of computer vision?
    3. Draw out the difference between the three domains of AI with respect to the types of data they use.
    4. Identify the features of AI and the domain of AI used in them.
    5. What are the various stages of Al Project Cycle? Explain each stage with an example?
    6. Design a problem-solving template on any topic related to sustainable development.
    7. Explain Data privacy.
    8. A company had been working on a secret AI recruiting tool. The machine-learning specialists uncovered a big problem: their new recruiting engine did not like women chefs. The system taught

itself that male candidates are preferable. It penalised resumes that included the word “women chef". This led to the failure of the tool.

a. What aspect of AI ethics is illustrated in the given scenario?
b. What could be the possible reasons for the ethical concern identified?

9. As Artificially Intelligent machines become more and more powerful, their ability to accomplish tedious tasks is becoming better. Hence, it is now that AI machines have started replacing humans in factories. While people see it in a negative way and say AI has the power to bring mass unemployment and one day, machines would enslave humans, on the other hand, other people say that machines are meant to ease our lives. If machines over take monotonous and tedious tasks, humans should upgrade their skills to remain their masters always. What according to you is a better approach towards this ethical concern? Justify your answer.
10. Differentiate between Ethics and Moral with suitable examples.
11. What kind of personal data might be stored on the internet? How personal data can be used to influence individuals?

IT

IT & ITeS (Information Technology Enabled Services)

1.Answer the following questions:

Mention 3 career opportunities in the IT/ITeS industry.

Explain the role of IT in daily life (with examples).

2. How does ITeS help in improving customer service?

3. Research Task:

Prepare a short report on any one major Indian IT company (e.g., TCS, Infosys, Wipro, HCL).

Include:

Year of establishment

Services offered

Global presence

One recent achievement.

4. Practice Task:

Use any typing software (e.g., Typing Club, RapidTyping, KeyBlaze) or website (e.g., www.typing.com) and practice for 15 minutes daily during the holidays.

Activity:

Maintain a log for 7 days noting.

5. Write (type and print or submit handwritten) a paragraph on “Digital India” .

SCIENCE

BIOLOGY

1) Art Integrated Learning Activity Part A: Diagrammatic Representation

Draw well-labelled diagrams of a Plant Cell and an Animal Cell, showing all major organelles and highlighting key structural differences like the presence of chloroplasts.

Part B: Comparative Table

Fill in the following table to show the key differences and similarities:

Feature	Plant Cell	Animal Cell
Cell Wall		
Shape		

Vacuole Size		
Chloroplast		
Centrosome		
Lysosomes		
Mode of Nutrition		
Storage of Carbohydrates		

Part C: Application Task
Real-Life Connection: Write a short paragraph (6–8 lines) explaining how damage to any one organelle (e.g., mitochondria) can affect a living organism.
NOTE: Students have to do the above activities in their Biology notebook.
2) Write the following practical in the lab manual
Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells. Record observations and draw their labelled diagrams.
3) Self-Study: Ch-6 Tissues

CHEMISTRY
1) Art Integrated Learning Activity
a) To study evaporation in our day-to-day life.
b) To study the effect of temperature and surface area on evaporation.
Children have to explore, observe, discover and perform activities related to evaporation.
🔍Activity 1: Effect of Temperature on Evaporation
- Take two similar plates. Pour equal amounts (e.g., 50 ml) of water in each.
- Place one in sunlight and the other in a shaded area.
- Note the time taken for water to evaporate completely.

🔍 Activity 2: Effect of Surface Area
- Take one cup and one flat plate. Pour equal amounts of water into each.
- Keep both in the same location (e.g., windowsill).
- Observe which one evaporates faster and record the time.

After observing and performing the activities, record the observations.
The work will be assessed on the basis of handwriting, presentation, neatness, indexing, and completion of the activity.
NOTE: Students have to do the above activities in their Chemistry notebook.
2) Write the following practical in the lab manual
Preparation of –(a) a true solution, (b) a suspension, (c) a colloidal solution
Distinguish between these on the basis of –Transparency, Filtration criteria and Stability
3) Self-Study: Ch-2 Is Matter Around Us Pure

PHYSICS
1. Motion: Do activity 8.9 & 8.10 / 7.9 & 7.10 on a graph sheet
2. Do the numerical worksheet on Motion in a separate notebook.(worksheet attached)
3. Self-Study: Sound - Uses of Multiple Reflection and Ultrasound.

Instructions for Writing the Practical File
Please read and follow the instructions carefully to maintain uniformity and neatness in your practical file.
General Guidelines:
1. Each sheet in the practical file has two sides:

- **Blank Page (left side)**
- **Lined Page (right side)**

2. Use only a pencil on the blank page. Use only a blue pen on the lined page.

3. Do not use colours in the diagrams. Use a scale for accurate labelling, and ensure the diagrams are drawn neatly and properly.

4. Format for Each Experiment:

Blank Page (Pencil Only)	Lined Page (Blue Pen Only)
1. Aim	1. Aim
2. Materials Required	2. Materials Required
3. Diagram	3. Procedure
4. Observation Table	4. Observation
5. Calculation (if any)	5. Result / Conclusion
	6. Precautions

ASSIGNMENT PHYSICS -MOTION

i) Area under a v-t graph represents a physical quantity which has the unit:
a) m^2 b) m c) m^3 d) m/s

ii) The numerical ratio of displacement to distance for a moving object is:
a) always less than 1 b) always equal to 1
c) always more than 1 d) equal or less than 1

2. Represent the motion of bodies by drawing graphs for the following:
a) v-t graph with increasing acceleration.
b) s-t graph of a body whose v-t graph is parallel to x axis.
c) s-t graph for a stationary body.
d) v-t graph of a body having an initial velocity of 10m/s and moving with constant retardation. The body comes to stop in 5 sec.

3. A horse is tied with a 2m long rope at a pole. What distance will the horse run around the pole with a rope tightly stretched, if it takes one and a half round? Also find the displacement of the horse .

4. Which of the following is moving faster? .i) A scooter moving with a speed of 300m/s ,ii) A car moving with a speed of 36 km per hour. Justify your answer.

5. An object travels 16m in 4 sec and then another 16m in 2 sec. What is the average speed of the object?

6. A body covers a distance l m along a semicircular path.Calculate the ratio of distance covered and its displacement.

7. An object is dropped from rest at a height of 150m and simultaneously another object is dropped from rest at a height 100m. What is the difference in their heights after 2 sec if both the objects drop with same acceleration of 10 m/s^2?

8. Draw the velocity-time graph from the data given below:

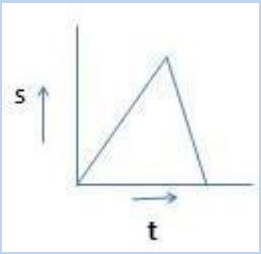
Time in (sec)	2	4	6	8	10	12	14
Velocity in m/s^2	5	10	15	20	20	10	0

a) What type of motion is represented during 0-6 sec.
b) What is the acceleration in the first 6 sec ($2.5m/s^2$)
c) Using the graph calculate the distance travelled between 6 to 8 sec (35m)
d) Calculate retardation during 12-14 sec. ($-5m/s^2$)

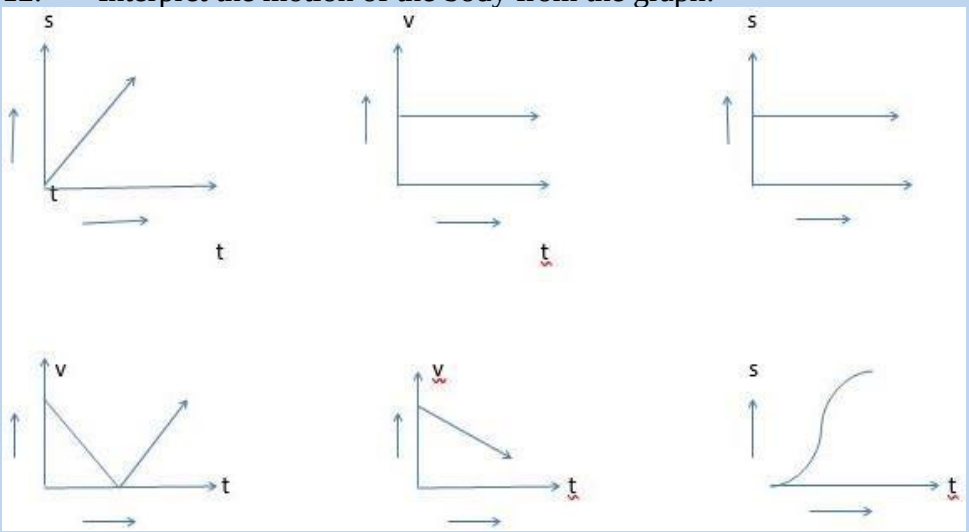
9. A train starting from rest attains a velocity of 72km/h in 5 min. Assuming the acceleration is uniform, find i) The acceleration ii) The distance travelled by the train for attaining this velocity. ($1/15ms^{-2}$,3000m)

10. The driver of a train travelling at 40m/s applies the brakes as the train enters the station. The train slows down at a rate of $2m/s^2$, the platform is 400m long. Will the train stop in time?

11. A girl walks along a straight path to drop a letter in a letter box and comes back to her initial position. Her displacement-time graph is shown in the figure. Plot a velocity-time graph for the same.



12. Interpret the motion of the body from the graph:



A particle undergoing a uniform circular motion is actually accelerated. Then why do we call this motion uniform?

14. A car starts from rest and moves along the x-axis with constant acceleration of 5 m/s² for 8 sec.If it then continues with constant velocity, what distance will the car cover in 12 sec since it started from rest?

15. The distance between Mumbai to Delhi is 1384km. A train starts from Mumbai at 4.00pm and reaches Delhi at 10.00 am the next day. What is its average speed?

CHEMISTRY - MATTER IN OUR SURROUNDINGS

1. Dry ice is
   a) water in solid state b) water in gaseous state
   c) CO_2 in liquid state d) CO_2 in solid state
2. During summer, water kept in an earthen pot becomes cool because of the phenomenon of
   a) diffusion b) transpiration c) osmosis d) evaporation

3. Solids and gases mix/dissolve in water
   a) because water is a good solvent
   b) because water has intermolecular space
   c) diffusion is faster in water
   d) all of the above

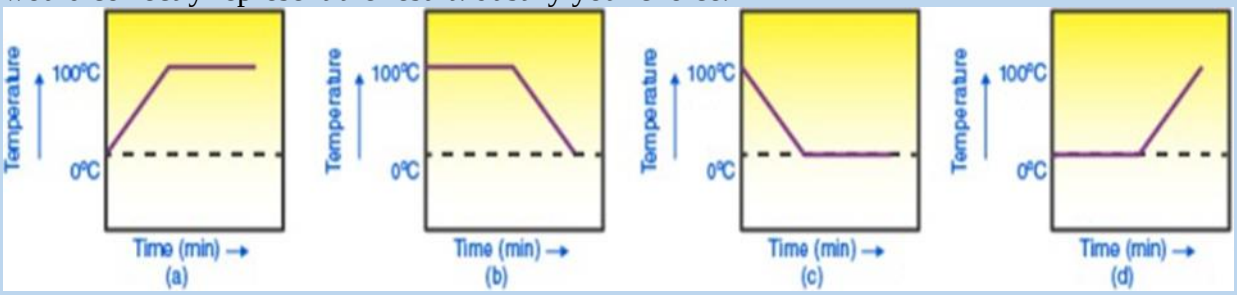
ASSERTION -REASON

For questions 4 to 6, 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.

4. Assertion: Most of the solids, liquids and gases can diffuse into liquids.
   Reason: Liquids cannot change their shape.

5. Assertion: Naphthalene does not leave any residue when kept open for sometime
Reason: The conversion of a solid directly into a gas is called Condensation.
6. Assertion: During evaporation of liquids, the temperature remains unaffected.
Reason: Kinetic energy is directly proportional to absolute temperature.
7. In an experimental activity, crushed ice was taken in a beaker. A thermometer is fitted in such a way that its bulb was thoroughly surrounded by ice. A student heats the beaker containing ice and water. The beaker is now slowly heated and temperature was regularly noted. Temperature rises gradually as the heating is continued and becomes constant when ice starts changing into liquid.
a) Identify the process associated with the conversion of ice into water.
b) What specific name is given to the constant temperature?
c) He measures the temperature of the content of the beaker as a function of time. Which of the following would correctly represent the result? Justify your choice.



OR

c). Water as ice has a cooling effect, whereas water as steam may cause severe burns. Explain these observations.
8. a). When 50 g of sugar is dissolved in 100 ml of water, there is no increase in volume. What characteristic of matter is illustrated by this observation?
b). Name the process which occurs when a drop of Dettol is added to water.
9. It is a hot summer day, Archana and Rohit are wearing cotton and nylon clothes, respectively. Who do you think would be more comfortable and why?

BIOLOGY - CELL: THE FUNDAMENTAL UNIT OF LIFE
1. An organism has a poorly defined nuclear membrane in its cells. This organism could be a/an:
(a) bacteria (b) animal (c) fungi (d) bird
2. Which of the following function is performed by smooth endoplasmic reticulum?
(a) It helps expel excess water and waste out of the cell.
(b) It helps produce ATP molecules.
(c) It helps digest small foreign particles.
(d) It helps detoxify the drugs.
3. Which part of the cell serves as the intracellular highway?
(a) Endoplasmic reticulum (b) Golgi apparatus
(c) Cell membrane (d) Mitochondria

ASSERTION -REASON
For questions 4 to 6, 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.

4. Assertion (A): Mitochondria and chloroplasts are semiautonomous organelles.
Reason (R): They contain their own DNA but lack protein-synthesizing machinery.
5. Assertion (A): Mitochondria are known as the powerhouse of the cell.
Reason(R): Mitochondria produce cellular energy in the form of ATP.
6. Assertion (A): Vacuoles are storage sacs for solid or liquid contents.
Reason(R): In amoeba, the vacuoles do not help in expelling excess water from the cell.

7. What happens when (i) A Rhoeo leaf is placed in a strong solution of sugar or salt. (ii) Rhoeo leaves are boiled in water first and then placed in a strong solution of sugar or salt. Explain.

8. Justify the following statements- (a) Lysosomes are also known as “scavengers of the cell”. (b) Vacuoles are small sized in animal cells while plant cells have very large vacuoles.

9. In the cells of every prokaryotic and eukaryotic organism the cell organelles play an important role because they carry out some very crucial functions in the cell. Think and analyse what would happen if the following cell organelle/structure are removed from the cell. (a) Endoplasmic reticulum (b) Golgi body

10. The inner membrane of the mitochondria is folded into many finger-like projections. Explain what would happen if the inner membrane was not folded?

ART

Complete these art works from Art Book

1. Make a creative glass painting (reference page no. 98

2. Draw and colour any painting on a small canvas from page no.85.
(Size not less than 10"x10")

Or

Make a decorative Mosaic Art from page no.96. on canvas
(Size not less than 10"x10")

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