

BHAVAN VIDYALAYA NEW CHANDIGARH

HOLIDAYS' HOMEWORK

SESSION-2025-26

CLASS - IX

Dear Parents,

Warm greetings,

First and foremost, we wish to express our gratitude for your ongoing support. Our students have really worked hard throughout the last session and they are looking forward to the pleasures which a summer break brings.

"We do not inherit the Earth from our ancestors, we borrow it from our children"

We are not the owners of the Earth, but temporary stewards entrusted with its care. It is our responsibility to preserve it for the well-being of future generations. To instill these values in our children, this year's holiday homework has been thoughtfully designed around the theme:

🛣 "Reduce, Reuse, Recycle"

It aims to cultivate environmental responsibility, creativity, and independent effort among students. Our students will spend around one and a half month with you and we urge you to encourage activities that stimulate their mind, body and creativity.

We would like your co-operation in the following areas:

Outdoor Activities:

- Please take them to Kissan Mandi or Green vendors for purchase of vegetables and fruits and explain them how to look for fresh and ripe product.
- Try to go out for a walk at least 2-3 times a week.
- Hiking, biking, swimming or even gardening will be useful for them to connect to the nature.

Family Time:

- Please spend some time looking at old photographs /videos and enjoy the nostalgic trip down the memory lane.
- A short weekend getaway, having a movie night, sharing stories about your childhood, your school, your family trips, your first jobs, etc over a picnic in the city park, balcony or terrace would be a great way to connect with your child.
- Cherish these moments of togetherness.

Reading:

- Encourage them to read newspapers/books.
- If possible, get membership of local library.
- It helps to improve their reading competency.

Limit Screen Time:

•Engage them in different activities at home, e.g. Allow them to help you in cooking.

•Encourage them to spend some time with grandparents /elderly neighbours.

•Please teach them a few basic domestic chores like washing their own utensils, folding their clothes, washing their clothes, making their bed, maintaining the kitchen garden/garden.

Encourage Journaling:

- The practice of keeping a diary or journal can help them to process emotions and experiences, reduce stress and anxiety.
- It will also come handy when they prepare their portfolio, as required by CBSE.

Let us use this summer break to nurture our children with real knowledge which demands our time and love.

We look forward to welcoming everyone back in the month of July, rested, rejuvenated, and ready for another year of learning and growth.

Hope you will have a great time together!

Warm regards,

Principal

Bhavan Vidyalaya

Chandigarh

℅ GENERAL GUIDELINES

- Holiday Homework must be **neatly handwritten**, completed **independently**, and reflect **sincere effort**.
- All assignments should creatively incorporate the theme "Reduce, Reuse, Recycle".
- Originality and creativity are encouraged and will be rewarded.
- Each subject's work should be done on **loose sheets** (ruled or plain,however in case there are subject specific instructions to use a different medium such as scrap file/Activity book or any other format then those specific instructions should be followed).
- Use separate folders for each subject, made from recycled or reused materials such as:
 - Newspapers
 - Cartons
 - \circ Cardboard
- Plastic folders and handmade designer sheets will not be accepted.
- A reference link to create recycled folders has been shared here:

https://youtube.com/shorts/TtbzVWLocrE?si=rO4DG7v4Z-Ht-w12

Clearly label each folder with the following details:

- Student's Full Name
- Class & Section
- Subject
- Roll Number
- Holiday Homework 2025
- Submit **physical folders** to the respective subject teachers.
- Submission Date: 8.07.25-English, Arts
 - 9.07.25- Punjabi, Maths
 - 10.07.25- Computer, EVS 2, Music
 - 11.07.25- Hindi, Evs1

A PRESENTATION GUIDELINES

- Use **ruled sheets** for theory-based work and **plain sheets** for diagrams or artwork, unless stated otherwise by the subject teacher.
- Avoid use of **plastic covers, glitter, sequins, or non-biodegradable decorative materials**.
- Enhance presentation by including:
 - Mind maps
 - Posters or infographics
 - Poems or slogans
 - QR codes linking to digital content

DIGITAL WORK (If Applicable)

- Only prepare and submit digital work (e.g., **PPTs**, videos) if explicitly instructed.
- Label your digital files as: Class_Section_Name_Subject_HHW2025
- Share via the **CSM App** or official school email by the deadline.
 - 4

SUGGESTIONS FOR CREATIVE INCLUSIONS

To reinforce the theme of sustainability, you may include:

- Eco-friendly posters with slogans
- Crafts or models using household waste
- Waste audit reports or water-saving diaries
- Innovative use of reused packaging in your presentation

ASSESSMENT CRITERIA

Criteria	Marks
Originality & Creativity	10
Neatness & Presentation	10
Content Accuracy & Relevance	10
Timely Submission	10
Use of Recycled/Upcycled Material	10
Total	50

We hope this Holiday Homework inspires our students to become **creative thinkers**, **responsible citizens**, and **champions of sustainability**.

ENGLISH

Activity-1 Character Interview Script

Choose a character like Kezia, Margie or any other character from Beehive or Moments. Imagine interviewing them and write a short script with at least five thoughtful questions and their brief, emotional responses. The answers should reveal the character's feelings, thoughts, and choices from the story.

Activity-2 Bookstagram

Let's connect creativity and digital expression. Choose a poem or story from your syllabus and create a mock Instagram post. Draw or paste an image that represents it, add a caption, 3–4 hashtags, and a short review (30–50 words). This fun activity connects reading with creativity and digital expression.

Activity-3 Earth's Open Letter

Write a 120–150-word letter, on A4 sheet, from Planet Earth to humans using personification. Begin by introducing Earth as the nurturing home of life. Then, express concern about pollution, deforestation, and climate change. Ask humans to take action and adopt eco-friendly habits. End with a message of hope and responsibility. Decorate the letter.

Activity-4 Literary Reflections

1. Revise the syllabus covered so far.

2. Solve the following from BBC:

Module-1 Reading Passages (Pg-3 to 12)

Module -2 Descriptive Paragraph (Pg-81 and 87)

Module -5 Tenses (pg-182-188) and Subject Verb Agreement -Pg-195

Note: All activities to be done on A4 size sheets and submitted in a neat paper folder. Each Activity sheet should carry your name, class and roll no.

हिंदी

 एक आकर्षक मुख्य पृष्ठ (cover page) बनाइए -"दुख का अधिकार" पाठ (क्रमाांक 1 से 20) "एवरेस्ट: मेरी शिखर यात्रा" (क्रमाांक 21 से 40)

> यशपाल जी की कोई कहानी पढ़ें और उसका सार A4 Sheet में लिखें। यह भी लिखें कि आपने वह कहानी क्यों च्नी?

भवन विद्यालय, न्यू चंडीगढ़		
	कार्यपत्रिका (2025-26)	
कक्षा- नौवीं नाम	अनुक्रमांक	
प्र-1. शब्द वाक्य में प्रयुक्त होने पर क	या कहलाता है? उदाहरण देकर समझाइए।	
प्र-2. नीचे दिए गए शब्दों पर अनुस्वार	या अनुनासिक का प्रयोग कर दोबारा लिखिए-	
संभावना	सुगंधित	
पाँच -	ਸੈਂ	
प्र-3. दिए गए उपसर्ग को मूल शब्द में	जोड़कर दो दो नए शब्द बनाइए-	
अप,	- कु,	
प्र-4. दिए गए शब्द से प्रत्यय और मूल	शब्द अलग करें।	
डाकखाना	मोटापा	
प्र-5. संधि किसे कहते हैं तथा स्वर संगि	धे के भेदों के नाम लिखिए	
प्र-6. तत्सम और तद्भव शब्दों में क्या	अंतर होता है? उदाहरण सहित लिखिए।	
प्र-7. नीचे लिखे शब्दों का संधि-विच्छेद	कीजिए और उसके भेद का नाम लिखिए।	
वार्तालाप	राकेश	

प्र-8. लेखक किसके रोने का कारण नहीं जान पाया? 'दुख का अधिकार' पाद के आधार पर लिखिए
प्र-9. बूढ़ी स्त्री के रोने का क्या कारण था?
प्र-10. 'गरीब निवाजु गुसईआ मेरा माथै छत्रु धरैं' का भावार्थ लिखें।
प्र-11. 'एवरेस्ट: मेरी शिखर यात्रा' में लेखिका को 'सागरमाथा' नाम क्यों अच्छा लगा?
प्र-12. नीचे लिखी गयी पंक्तियों के रिक्त स्थान को भरें ।
• रहिमन धागा चटकाए।
• टूटे तैजाए।
प्र-13. महादेवी वर्मा द्वारा गिल्लू के बारे में बताई गई किन्हीं चार विशेषताओं को अवधारणा मैप के द्वारा लिखें।
गिल्लू

PUNJABI

	1.	ਪੰਜਾਬ ਦੇ ਮਸ਼ਹੂਰ ਪਾਣੀ ਦੇ ਸਰੋਤ (FAMOUS WATER RESOURCES) ਦੀ ਤਸਵੀਰ ਲਗਾ ਕੇ ਉਹਨਾਂ ਬਾਰੇ 6-8 ਵਾਕਾਂ ਵਿੱਚ ਜਾਣਕਾਰੀ ਲਿਖੋ ਇਹ ਕੰਮ ਇੱਕ A4 ਸ਼ੀਟ ਉੱਤੇ ਕਰੋ
	2.	ਪੰਜਾਬ ਦੇ ਕੋਈ ਚਾਰ ਮਸ਼ਹੂਰ ਕਵੀਆਂ ਦੀ ਤਸਵੀਰ ਲਗਾ ਕੇ ਉਹਨਾਂ ਬਾਰੇ ਜਾਣਕਾਰੀ ਲਿਖੋ ਅਤੇ ਉਹਨਾਂ ਦੁਆਰਾ ਰਚੀ ਇੱਕ ਇੱਕ ਕਵਿਤਾ ਲਿਖੋ
	3.	ਆਓ ਭਾਸ਼ਾ ਨੂੰ ਪ੍ਰਭਾਵਸ਼ਾਲੀ ਬਣਾਈਏ: ਪਿਆਰੇ ਬੱਚਿਓ! ਵਿਆਕਰਨ ਦੀ ਕਿਤਾਬ ਵਿੱਚ ਦਿੱਤੇ ਗਏ ਕੁਝ ਚਾਰ-ਪੰਜ ਵਿਰੋਧੀ ਸ਼ਬਦਾਂ ਦੀ ਵਰਤੋਂ ਕਰਕੇ ਵਾਰਤਾਲਾਪ (DIALOGUE) ਲਿਖੋ
	4.	ਆਪਣੇ ਆਪ ਨੂੰ ਤੰਦਰੁਸਤ ਰੱਖਣ ਲਈ ਹਰ ਰੋਜ਼ ਸੈਰ ਕਰੋ ਅਤੇ ਉਸ ਦੀ ਇੱਕ ਤਸਵੀਰ ਲਗਾਓ ਸੈਰ ਕਰਨ ਦੇ ਪੰਜ ਫਾਇਦੇ ਵੀ ਲਿਖੋ
		ਜਮਾਤ ਨੈਵੀਂ (IX) ਕਾਰਜਪੱਤਰ
भूः 1 ः	ਸਮੇਂ ਨੂੰ	ਕਿਹੜੀ ਜਾਚ ਨਹੀਂ ਹੈ ?
ਉ:		
ਪ੍ਰ:2 ਤ	ਤਾਇਆ	ਾ ਕਿਹੜੀ ਬੱਕਰੀ ਤੋਂ ਡਰ ਰਿਹਾ ਸੀ ?
ਉ:		
ਪ੍ਰ:3 ਜ ਼	ਜੁਗਲ ਪ	ਪ੍ਰਸਾਦ ਆਪਣੇ ਮਿੱਤਰ ਤੋਂ ਕਿੰਨੇ ਰੁਪਏ ਮੰਗ ਕੇ ਲਿਆਇਆ ?
ਉ:		
ပု း4 '	ਵਿਸਾਇ	ੀ ਦਾ ਮੇਲਾ' ਕਵਿਤਾ ਵਿੱਚ ਕਿਹੜੇ ਰੁੱਖ ਦੀਆਂ ਟਾਹਣੀਆਂ ਲਿਫ਼ੀਆਂ ਹੋਈਆਂ ਹਨ?
ਉ:		
ਪ੍ਰ:5 ਵੱ	ਹੇਠ ਲਿ	ਖਿਆਂ ਵਿੱਚੋਂ ਕਿਹੜਾ ਸ਼ਬਦ ਇਸਤਰੀ ਲਿੰਗ ਹੈ ?
ਜਹਾਜ਼	त , घेः	ੜੀ , ਸੋਟਾ , ਬਿੱਲ
ਉ:		
ਪ੍ਰ:6 ਵੱ	ਹੇਠ ਲਿ	ਖੇ ਸ਼ਬਦਾਂ ਦੇ ਵਿਰੋਧੀ ਸ਼ਬਦ ਲਿਖੋ :
ਜਿਗਿ	ਆਸੂ ,	ਜਟਾਜੂਟ , ਸਦੀਵੀ , ਸੱਜਰ , ਸੱਖਣਾ
ਊ :		

ਪ੍ਰ:7 ਵਿਸਮਕ ਸ਼ਬਦਾਂ ਦੇ ਪਿੱਛੇ ਕਿਹੜਾ ਚਿੰਨ੍ਹ ਲਗਦਾ ਹੈ ?

ਪ੍ਰ:8 ਤਾਇਆ ਮਨਸਾ ਰਾਮ ਨੇ ਕਿਹੜੇ – ਕਿਹੜੇ ਟੀਕੇ ਲਗਵਾਏ ?

ਪ੍ਰ:9 ਵਿਸਾਖੀ ਦਾ ਮੇਲਾ ਕਵਿਤਾ ਦਾ ਰਚਨਾਕਾਰ ਕੈਣ ਹੈ ?

ଫ୍ରି: -----

ହି: -----

ହି: -----

ਪ੍ਰ:10 ਜੋਤੀ ਦੀ ਬੁਘਨੀ ਵਿੱਚੋਂ ਕਿੰਨੇ ਆਨੇ ਨਿਕਲੇ ?

MATHEMATICS

Revise Chapters-1, 2 and 3.

Activities: All the activities are to be done in the Maths Activity File.

₽: -----

Activity 1: 'My Dream Park Map'

Design a layout of your dream park using the coordinate plane. Include at least 10 elements (trees, benches, fountains, swings, etc.).

- Plot each element using coordinates (x, y) on a grid (e.g., Fountain at (3, 4)).
- Draw the grid on graph paper or digitally.
- Use lines and angles to represent roads: show parallel roads, intersecting roads, angles formed at junctions.

Activity 2: 'Math Comic Strip'

Create a short comic strip titled 'Polynomial Planet Adventures' featuring characters like Poly, Mono, Bi, and Zero.

- Each character represents a type of polynomial (e.g., Monomial, Binomial).
- Through the story, show how they solve a problem using polynomial expressions. Include a real-life polynomial expression and factor it.



Activity 3: "Rational vs. Irrational Challenge" – BOARD GAME

Design a board game (e.g., ludo, monopoly) that incorporates math challenges related to topics rational and irrational numbers. Include rules, question cards, and a scoring system.

Activity 4: "Pi-neering Minds"

Research the history of the mathematical constant π , its discovery, and its applications in various fields. Present your findings through a creative poster, highlighting interesting facts and real-world uses. Also perform the activity Finding Pi, please check CSM app for the same.

ASSIGNMENT

- 1. If $x = 2 + \sqrt{3}$, find x 1x and $x^2 + 1x^2$
- 2. Simplify: $4 + \sqrt{54} \sqrt{5} + 4 \sqrt{54} + \sqrt{5}$
- 3. Represent $\sqrt{8}$ on the number line.
- 4. Find the value of a and b, if $7+3\sqrt{53} + \sqrt{5} 7-3\sqrt{53} \sqrt{5} = a + \sqrt{5} b$
- 5. Evaluate: $12 + \sqrt{5} + 1\sqrt{5} + \sqrt{6} + 1\sqrt{6} + \sqrt{7} + 1\sqrt{7} + \sqrt{8} + 1\sqrt{8} + 3$
- 6. If $x = 8 \sqrt{63}$, evaluate $x^3 + 1x^3$
- 7. If a + b + c = 7 and ab + bc + ca = 20, find the value of a2+b2+c2
- 8. Without finding the cubes, factorize: (14)3 + (13)3 (712)3

9. If the polynomials az3 + 4z2 + 3x - 4 and z3 - 4z + a leave the same reminder when divided by z - 3, find the value of a.

10. If $p(x) = x^3 - 2x^2 + 3x - 1$, find $p(2\sqrt{2}) - p(-2\sqrt{2})$

11. Draw a graph to show the following points: P (0, 0), Q (1, 2), R (2, 4), S (3, 6). Do they lie on a straight line? What relation do you observe?

- 12. Write the coordinates of the vertices of a rectangle whose opposite corners are (1, 2) and (5, 6).
- 13. Rationalise: $42+\sqrt{3}+\sqrt{7}$

14. The polynomial f(x) = x4 - 2x3 + 3x2 - ax + b when divided by (x - 1) and (x + 1) leaves the remainders 5 and 19, respectively. Find the values of a and b. Hence, find the remainder when f(x) is divided by (x - 2).

15. Draw the line passing through (2, 3) and (3, 2). Find the coordinates of the point at which the line meets the x- axis and y- axis.

16. Name the quadrant in which the following points lie: a) (5, -3) b) (-6, 4) c) (-3, -7) d) (2, 0)

17. What is the distance of point A (-4,2) from coordinate axes?

18. If one of the co-ordinates of a rectangle placed in III quadrant with length 2 units on x-axis and breadth 4 units on y-axis is (0,0), then find the other.

19. Two straight lines PQ and RS intersect each other at O, shown in the figure. If $\angle POT = 75^{\circ}$, find the values of a, b, and c.

20. The perpendicular distance of a point from x-axis and y-axis is 3 units and 2 units, respectively. Write the coordinates of the point if it lies in I, II, III and IV quadrants.



SCIENCE

ACTIVITY 1

Perform an activity to study the rate of evaporation of water considering the factors of surface area, temperature and wind speed.



OBSERVATION TABLE

SR. NO.	CONDITIONS	TIME TAKEN FOR	INFERENCE
		EVAPORATION	
1.	In Sunlight		
	(a) Water taken in a cup		
	(b) Water taken in a saucer		
2.	In room without fan		
	(a) Water taken in a cup		
	(b) Water taken in a saucer		
3.	In room with fan		
	(a) Water taken in a cup		
	(b) Water taken in a saucer		

ACTIVITY 2

'AQUA' amazing adventure from ice to vapour.

Illustrate the transformation of H2O through different states of matter by creating a creative comic strip with minimum of 6 panels.

Instructions:

- Design a character representing a substance (e.g., a water droplet, an ice cube etc.).
- Depict the character undergoing phase changes (e.g., melting, evaporation, condensation etc.).
- Include brief explanations of each phase change, highlighting the role of thermal energy.
- <complex-block><complex-block><complex-block><complex-block><complex-block>
- Use drawings and dialogue to narrate the character's journey. Ensure clarity and creativity in your illustrations.

PRESENTATION: Use A3 / A4 ivory sheet for both the activities. Paste real pictures in Activity-1.

PHYSICS

Map the Motion Mania!

Your Mission: Design a Motion Map for the Museum of Physics!

You've been hired by the Museum of Physics to design a mindblowing concept map that explains everything about Motion in a way that even a 6th grader could understand and love!

Your Concept Map Must Include:

1. Main Theme at the Centre

Title it "All About Motion" or give it a fun name like:

- "Motion Commotion!"
- "The Fast & the Curious!"
- 2. Key Concepts (Use Bubbles, Branches, or Icons)

-Motion

- -Distance vs. Displacement
- -Speed vs. Velocity
- -Acceleration

-Uniform and Non-uniform Motion

- -Graphs of Motion (Distance-Time, Velocity-Time)
- -Equations of Motion (use symbols and units

-Add Visual Flair

-Use colours, doodles, arrows, emojis, or stickers

-Turn concepts into characters (e.g., Speed as a superhero, Acceleration as a rocket)

-Add fun facts or mnemonics (e.g., "S = D/T - Speed loves Distance and Time!")

Presentation Rules:

- Use A3 chart paper, turn your A3 presentation into a small booklet to make it fun and easy to read—just like a mini science magazine!
- Make it neat, vibrant, and imaginative
- Use headings, underlines, speech bubbles, or comics to explain terms.

BIOLOGY

ACTIVITY: Understanding Diseases - Causes, Prevention, and Control

A. Detailed Study of Two Diseases: Presentation Rules:

Use A3 chart paper, turn your A3 presentation into a small booklet to make it fun and easy to read—just like a mini science magazine!

Make it neat, vibrant, and imaginative

Use headings, underlines, speech bubbles, or comics to explain terms.

BIOLOGY

ACTIVITY: Understanding Diseases - Causes, Prevention, and Control*

A. Detailed Study of Two Diseases: Choose one infectious and one non-infectious disease and write about the following for each:

- Name of the disease
- Causative agent
- Symptoms
- Mode of transmission (if applicable)
- Preventive measures and treatment
- Any interesting fact/ historical outbreak

B. Immunity and Vaccination

Paste a copy of your vaccination card and name any four diseases for which you have been vaccinated.



C. Creative Section

Create a disease awareness poster on A4 size sheet. You may use your IT skills to create a poster, as per the roll numbers mentioned below:

- Malaria/AIDS (R.No.1 to 8) •
- Dengue/ Typhoid (Roll no.9 to 16) •
- Tuberculosis (Roll no. 17 onwards) •

Note:

- 1. Every group will give presentation in class as part of Subject Enrichment Activity.
- 2. Solve the given worksheet.

The Fundamental Unit of Life: Cell

OBJECTIVE TYPE QUESTIONS

(A) Multiple Choice Questions

1. Chromosomes are made up of

(a) DNA (b) protein (c) both (a) and (b) (d) none of these

2. Plasmolysis in a plant cell is defined as

(a) breakdown (lysis) of plasma membrane in hypotonic medium.

(b) shrinkage of cytoplasm in hypertonic medium.

(c) shrinkage of nucleoplasm.

(d) none of them.

3. Find out the false sentence.

- (a) Golgi apparatus is involved with the formation of lysosomes.
- (b) Nucleus, mitochondria and plastid have DNA; hence they are able to make their own structural proteins.

(d) Schleiden.

(c) Mitochondria are said to be the powerhouse of the cell as ATP is generated in them.

- (d) Cytoplasm is called as protoplasm.
- 4. Cell arises from pre-existing cell was stated by

(b) Virchow (c) Hooke (a) Haeckel

5. Lysosome arises from

(a) endoplasmic reticulum

(b) Golgi apparatus

- (c) nucleus
- (d) mitochondria

(B) Fill in the blanks:

(B) Fill in the blanks:
1.A plastid is also called ______ of the cell.
2. Human cheek is lined internally with flattened ______ cells.

- 3.Nucleolus is also called a factory of ______.

 4. In prokaryotic cells, nuclear region is called ______.

 5. Golgi apparatus is also called ______ in plants.

(C) Assertion/Reason

Note: In the following assertion/reason type questions, a statement of assertion followed by a statement of reason is given. Choose the correct answer out of the following choices.

(i) Assertion and reason both are correct statements and reason is correct explanation for assertion.

(ii) Assertion and reason both are correct statements but reason is not correct explanation for assertion.

(iii) Assertion is correct statement but reason is wrong statement.

(iv) Assertion is wrong statement but reason is correct statement.

1. Assertion: CO, moves out of the cell from a region of high concentration to a region of low concentration outside the cell by the process of diffusion.

Reason: Diffusion is a spontaneous movement of a substance from a region of high concentration to a region where its concentration is low.

2. Assertion: Flexibility of the cell membrane enables the cell to engulf in food and other material from its external environment.

Reason: Amoeba acquires its food through this process.

3. Assertion: The cell membrane plays a central role in cellular reproduction. Reason: In cellular reproduction, a single cell divides and forms two new cells.

4. Assertion: Lysosomes help to keep the cell clean by digesting any foreign material as well as worn-out cell organelles.

Reason: Lysosomes are able to do this because they contain powerful digestive enzymes capable of breaking down all kind of organic materials.

5. Assertion: Plastids are similar to lysosomes in external structure.

Reason: Like the mitochondria, plastids also have their own DNA and ribosomes.

(D) Very Short Questions

- 1. Name a cell organelle found only in animal cells.
- 2. In which cell organelles are cristae present?
- 3. Which cells are well-developed and represent the advanced cells?
- 4. Which organisms possess the characteristic feature of division of labour?
- 5. Which microscope involves the use of at least two lenses?
- 6. (i) What are colourless plastids called?
- (ii) What are green-coloured plastids called?
- 7.(i) What is the shape of an onion peel cell?
- (ii) What is the shape of human cheek cell?
- 8. (i) Name the cell organelle found only in plants.
- (ii) Which cell organelle are the sites of cellular respiration?
- 9. (i) What is the size of a prokaryotic cell?
- (ii) What is the size of a eukaryotic cell?

Diagram based case study

Study the given diagram and answer the following questions:



a) Try to label the diagram from 1 to 13.

- b) (i) Identify the given diagram.
- (a) Structure of animal cell
- (b) Structure of plant cell
- (c) Bacterial cell
- (d) Prokaryotic cell

(ii) The function of part labelled as 1 is____

(a) Release of energy

(b) Protein synthesis

(c) Transmission of heredity characters

(d) Storage

(iii) Mention any two structures which are not found in above cell.

(a) Cell wall and ribosomes

(b) Cell wall and Golgi apparatus

(c) Cell membrane and Golgi apparatus

(d) Plastids and cell wall

(iv) Chromosomes are present in _____

(a) Cell membrane

(b) Golgi apparatus

(c) Endoplasmic reticulum

(d) Nucleus

(v) Lysosomes are also called

(a) suicide bags

(b) digestive bags

(c) demolition squads

(d) all of the above

Draw colourful well labelled diagram of Animal cell and Plant Cell on separate A-4 sized sheets from your NCERT book.

CHAPTER: MOTION WORKSHEET

Q1. ASSERTION AND REASON QUESTIONS

DIRECTION: In each of the following questions, a statement of Assertion is given and a corresponding statement of Reason is given just below it. Of the statements, given below, mark the correct answer as: (a) Both assertion and reason are true and reason is the correct explanation of assertion.

(b) Both assertion and reason are true but reason is not the correct explanation of assertion.

(c) Assertion is true but reason is false.

(d) Both Assertion and Reason are false.

1. Assertion: An object may acquire acceleration even if it is moving at a constant speed.

Reason: With change in the direction of motion, an object can acquire acceleration.

2. Assertion: Velocity versus time graph of a particle in uniform motion along a straight path is a line parallel to the time axis.

Reason: In uniform motion the velocity of a particle is directly proportional to time elapsed.

3. Assertion: the speedometer of a car measures the average speed of the car.

Reason: Average speed is equal to the total displacement covered by an object divided by the total time taken.

4. Assertion: The displacement of an object can be either positive, negative or zero.

Reason: Displacement has both the magnitude and direction.

Q2. MULTIPLE CHOICE QUESTIONS

5. A particle moves 3m north, then 4m east and finally 6m south. What will be displacement covered by the particle

(a) 16m

(b) 7m

(c) 5m

(d)10m



Q3. Read the following text and answer the questions mentioned below:

 The shapes of the position versus time graphs for two basic types of motion - constant velocity motion and accelerated motion (i.e., changing velocity) - reveal an important principle. The principle is that the slope of the line on a position-time graph reveals useful information about the velocity of the object. It is often said, "As the slope goes, so goes the velocity." Whatever characteristics the velocity has, the slope will exhibit the same (and vice versa). If the velocity is constant, then the slope is constant (i.e., a straight line). If the velocity is changing, then the slope is changing (i.e., a curved line). If the velocity is positive, then the slope is positive (i.e., moving upwards and to the right). This very principle can be extended to any motion conceivable.



Velocity-time graph for a car moving with uniform acceleration

Question i) From the above Velocity-Time graph, the body is moving with			
(a) Variable Acceleration	(b) Zero Acceleration		
(c) Constant Acceleration	(d) Zero velocity		
Question ii) Distance covered by the body during the interv	val from 10sec to 20 sec is		
(a) 180	(b) 200		
(c) 240	(d) 270		
Question iii) At the point A the body is at a distance of			
(a) 90m	(b) 180m		
(c) 270m	(d) 350m		
Question iv). The velocity of the body at the point 'E' is			
(a) 20m/s	(b) 24m/s		
(c) 32m/s	(d) 36m/s		
10. The cartoon below shows three segments of a roller coa	ster:		
a simplified model of a	roller coaster		

(3)



- 1. a descent (decreasing slope) that is 20 m long
- 2. a horizontal segment that is 10 m long
- 3. a rise of unknown length.

Answer the following questions-

1. A car starts from rest at the top of segment 1 and accelerates to the bottom at a constant 6.4 m/s2. Determine the speed of the car at the bottom of segment 1?

2. Determine the time it took the car to travel from the beginning to the end of segment 1.

3. The car then enters segment 2 and travels with the same speed it had at the end of segment 1. The car does not speed up or slow down while it is in segment 2. Determine the time it took the car to travel from the beginning to the end of segment 2.

4. The car then enters segment 3 with the same speed it had when it was in segment 2. When it gets to the top of segment 3, the car has slowed to 15 m/s. If it took 2.0 s for the car to travel from the bottom to the top of segment 3, what was its acceleration while it was in segment 3?

WORKSHEET

Matter In Our Surroundings

- 1. Which one of the following sets of phenomena would increase on raising the temperature?
- (a) Diffusion, evaporation, compression of gases.
- (b) Evaporation, compression of gases, solubility
- (c) Evaporation, diffusion, expansion of gases.
- (d) Evaporation, solubility, diffusion, compression of gases.
- 2. The property to flow is unique to fluids. Which one of the following statements is correct?
- (a) Only gases behave like fluids (b) Gases and solids behave like fluids
 - (c) Gases and liquids behave like fluids (d) Only liquids are fluids
- 3. Choose the correct statement of the following:
- (a) conversion of solid into vapours without passing through the liquid state is called sublimation.
- (b) conversion of vapour into solid without passing through liquid state is called vaporisation
- (c) conversion of vapours into solid without passing through the liquid state is called freezing.
- (d) conversion of solid into liquid is called sublimation.
- 4. During summer, water kept in an earthen pot becomes cool because of the phenomenon of
- (a) diffusion(b) transpiration(c) osmosis(d) evaporation

5.In which of the following conditions, the distance between the molecules of hydrogen gas would increase?

- (i) Increasing pressure on hydrogen contained in a closed container.
- (ii) Some hydrogen gas leaking out of the container.
- (iii) Increasing the volume of the container of hydrogen gas.
- (iv) Adding more hydrogen gas to the container without increasing the volume.
- (a) (i) and (iii) (b) (i) and (iv) (c) (ii) and (iii) (d) (ii) and (iv)

6.A student heats a beaker containing ice and water. He measures the temperature of the content of the beaker as a function of time. Which of the following graph would correctly represent the result? Justify your choice.



7. A glass tumbler containing hot water is kept in the freezer compartment of a refrigerator (temperature $< 0^{\circ}$ C). If you could measure the temperature of the content of the tumbler, which of the following graphs would correctly represent the change in its temperature as a function of time.



DIRECTION: For question numbers 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 codes (a), (b), (c) and (d) as given below:

- (a) Both A and R are true and R is 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) Both A and R are false
- 8. Assertion (A): In solids, molecules are tightly packed.

Reason (R): Force of attraction between molecules in solids is very weak.

9. Assertion (A): The smell of incense can be felt in another room.

Reason (R): With the increase in temperature of particles, their kinetic energy also increases.

10. Assertion (A): Solid CO2 changes its state when exposed to air.

Reason (R): CO2 undergoes sublimation.

11. Assertion (A): All molecules in a gas travel in same speed.

Reason (R): Gas contain molecules of different shape and size.

QUESTION NO 12 TO 14 ARE CASE STUDY QUESTIONS

12. The process of a liquid changing into vapour (or gas) even below its boiling point is called evaporation. The wet clothes dry due to evaporation of water present in them. Common salt is also recovered from seawater by the process of evaporation.

The process of evaporation can be explained as follows: Some particles in liquid always have more kinetic energy than the others. So, even when a liquid is well below its boiling point, some of its particles have enough energy to break the forces of attraction between the particles and escape from the surface of the liquid in the form of vapour (or gas). Thus, the fast moving particles (or molecules) of a liquid are constantly escaping from the liquid to form vapor (or gas).

On the basis of information given in above paragraph answer the following questions

(i) The changing of a liquid into vapours from the surface of the liquid without heating it is called:

(a) expansion

(b) contraction

(c) evaporation

(d) fusion

(ii) The evaporation from the	ne surface of any liquid depends of	1	
(a) temperature	(b) wind	(c) nature of liquid	(d) all of above
(iii) Molecules present at th	e surface of the liquid change into	vapours because	
(a) They absorb the latent h	eat of vaporization		
(b) They have high kinetic	energy		
(c) They break the intermol	ecular forces of attraction		
(d) All of the above			
(iv) Rate of evaporation dee	creases as?		
(a) temperature increases			
(b) humidity of surrounding	g air increases		
(c) movement of air above	surface of liquid increases		

(d) atmospheric pressure decreases

13.A state of matter is one of the distinct forms in which matter can exist. Three states of matter are observable in everyday life: solid, liquid, gas. Historically, the distinction is made based on qualitative differences in properties. Matter in the solid state

maintains a fixed volume and shape, with component particles close together and fixed into place. The forces between particles are so strong that the particles cannot move freely but can only vibrate. As a result, a solid has a stable, definite shape, and a definite volume. Solids can only change their shape by an outside force, as when broken or cut. Matter in the liquid state maintains a fixed volume, but has a variable shape that adapts to fit its container. Its particles are still close together but move freely. A liquid is a nearly incompressible fluid that conforms to the shape of its container but retains a (nearly) constant volume independent of pressure. The volume is definite if the temperature and pressure are constant. Intermolecular (or interatomic or interionic) forces are still important, but the molecules have enough energy to move relative to each other and the structure is mobile. The volume is usually greater than that of the corresponding solid, the best known exception being water, H2O.Matter in the gaseous state has both variable volume and shape, adapting both to fit its container. Its particles are neither close together nor fixed in place. A gas is a compressible fluid. Not only will a gas conform to the shape of its container but it will also expand to fill the container. In a gas, the molecules have enough kinetic energy so that the effect of intermolecular forces is small and the typical distance between neighbouring molecules is much greater than the molecular size.

Answer the following questions:

- (i) Density of ice is less than water because:
- (a) Ice occupies less volume than water
- (b) In ice molecules are pushed farther apart compared to liquid water.
- (c) Hydrogen bonds are not present in ice
- (d) None of the above
- (ii) If the temperature is doubled, the average velocity of a gaseous molecule:

(a) increases

(b) decreases

(c) remains same

(d) not applicable

- (iii) Which of the following describes the liquid phase?
- (a) It has a definite shape and a definite volume
- (b) It has a definite shape but not a definite volume
- (c) It has a definite volume but not a definite shape
- (d) It has neither a definite shape nor a definite volume
- (iv) The boiling point of a substance which is solid at room temperature is 150oC, its melting point can be:
- (a) 295 K (b) 323 K (c) 450 k (d) 250 K

Q 14. A substance is highly compressible and can be liquefied. It can take up the shape of any container. Predict the nature of the substance.

Q15. Boiling point of water is 100 degrees. Can we make it boil at 98 degree or at 102 degrees? How?

SOCIAL SCIENCE

INSTRUCTIONS:

- All activities to be done in one activity file.
- Don't waste paper, use plastic or non-biodegradable material in your Activity File.
- Be an ECO WARRIOR

DISASTER MANAGEMENT

Make 5 pages (10 sides), Hand written project in your Activity File, on what a 15-YEAR-OLD should do to protect yourself and the family during / before Disasters like Floods, Cyclones, Earthquakes, and Landslides only. (ANY TWO DISASTER ONLY)

(Source: Chapter 2- Towards safer India Part 2 book. PDF of the same will be sent on class groups).

You will paste or draw relevant pictures related to the disaster, with proper headings and write about the Disaster. You will integrate art work to decorate your pages.

HISTORY AND GEOGRAPHY

Group Activity

Make a Power Point presentation (maximum of 15 slides)

Using chapter Forest society and colonialism of History and Flora and Fauna. (Lesson 5 of Geography), find out the following information regarding-

- The Forest Laws
- Uses of forest wood by colonialists resulting in deforestation and its impact on Villagers' lifestyle. Compare & contrast this transformation from pre- colonial to colonial times.
- Include the impact of Flora and Fauna on these Forest societies due to modernization.
- Present the examples of Evergreen forests & the challenges they face, such as deforestation & climate change.
- Collate this information in your PPT in an original manner.
- Use sources mentioned in the Book and those given by the teacher.

DEMOCRATIC POLITICS

- Create an infographic poster in your activity file on the fundamental rights enshrined in the Indian constitution.
- Read the Newspaper daily

Note: Revise whatever has been done in class in all subjects.

Q1. Complete the following table:

SR. NO.	COUNTRY	LONGITUDE	DIFFERENCE FROM GMT
А.	PAKISTAN	75 degrees east	
B.	SRI LANKA	82 &1/2 degrees east	
C.	EGYPT	30 degrees east	
D.	JAPAN	135 degrees east	
E.	NEPAL	86 .20 degrees east	
F.	BANGLADESH	90 degrees east	
G.	BRAZIL	45 degrees west	

Q2-Which country follows the Indian standard time?

Q3- Which of the above countries does not follow the international standard for fixing standard meridians?

Q4- Name the countries which are a part of the Indian subcontinent.

Q5- Name the country which shares the longest border with India.

Q6- Does Bihar share the border with the country with the longest border with India?

Q7. What was the immediate cause of the French Revolution? Explain briefly.

Q8. Two important port cities famous for slave trade in France.

Q9. Draw up a list of democratic rights we enjoy today, whose origins could be traced to the French Revolution.

Q10. Who wrote the declaration of the rights of women and citizens?

Q11. Name the famous women's club during the French revolution.

Q12. The main objective of the constitution of the national assembly was

Q13. The official policy of racial separation of ill treatment of blacks followed by the government of South Africa was called

Q14. An assembly of people's representatives that writes a constitution for a country is ______.

Q15. An introductory statement in a constitution which states the reasons and guiding values of the constitution is ______.

Q16. When did South Africa become a democratic country?

Q17.Leaders of the freedom movement in India were clear that their country should be ______.

Q18. One of the guiding values of the constitution is sovereignty which means _____.

Q19. 'Republic' in context to our constitution means

Q20. All of us should behave as if we are members of the same family. No one should treat a fellow citizen as inferior. This defines a word given in the Preamble of our Constitution which is _____

Q21. The famous speech given by Pt. Nehru on the eve of Independence Day is known as _____

Q22. Who was the Chairman of the drafting committee of Indian Constitution, social revolutionary, thinker and agitator against caste divisions?

Q23. There are no unreasonable restrictions on the citizens in India, in what way they think, how they wish to express their thoughts. This means they enjoy _____

Q24. What determines the rights of citizens and the powers of the government?

Q25. The major challenges to democracy are ______.

Q26. Which body in the Indian political system is an example of direct democracy?

COMPUTERS

Part 1: Write the following programs:

- 1. Perform all the arithmetic operations using declared variables in the program.
- 2. Perform all the arithmetic operations using run-time values of the variables in the program.
- 3. To print personal information like Name, Father's Name, Class, School Name.
- 4. A program to read two numbers and print their quotient and remainder.
- 5. To print the following patterns using multiple print commands-



6. To find square of number 7.

- 7. To convert length given in kilometres into meters.
- 8. To calculate Area and Perimeter of a rectangle.
- 9. To calculate Area of a triangle with Base and Height.

10. To calculating average and total marks of 3 subjects.

11. To calculate Surface Area and Volume of a Cuboid.

Instructions:

- Paste screenshots of input as well as output screen on one page and take the print for each program.
- Place all the sheets in a well labelled folder.

Sample for the same is given below:

 $\underline{Q1}$) A program to read two numbers and print their quotient and remainder.

PROGRAM:

Programiz	Compiler			Programiz PRO
¢.			Output	
1 a=int(inpu	it("Enter the	first no."))		
2 b=int(inpu	t("Enter the	second no."))		
3 c=a/b				
4 d= a%b				
5 print('que		>		
6 print('rea	mainder =', d			

OUTPUT:



ART & CRAFT

A) Make 5 drawings

- 2 Landscape (any medium of colours)
- Still life (any medium)
- Caricatures (Pencil colours)
- Animal drawing (Black pen)

B) Craft with Newspaper.

Create beautiful craft using newspapers.



