D.A.V. PUBLIC SCHOOL, KAILASH HILLS
SUMMER HOLIDAY HOMEWORK
SESSION - 2025-2026
CLASS-IX

THEME - "Cooperatives Enterprises Build a Better World"

Welcome to your Summer 2025! This year's theme is **"Cooperative Enterprises Build a Better World".** Cooperatives encourage us to understand and appreciate the power of working together toward common goals. Cooperatives are about collaboration, shared ownership, and mutual support— values that are important not only in business, but also in school, family, and everyday life.

Over the summer, we encourage you to explore this theme through engaging tasks, creative thinking, and real-world connections. Here are some activities you can do this summer:

- Read a news article or watch a short documentary on cooperatives
- Group call with classmates to discuss a cooperative in your area
- Creative task: Draw a poster or infographic on "Benefits of Cooperatives"
- Write 10 facts about famous global cooperatives (e.g., Amul)
- Help your family with a task and write how teamwork helped
- Relax & read a story/book about unity,teamwork, or cooperation

ग्रीष्मावकाश गृह – कार्य (हिंदी)

थीम (Theme) का उद्देश्य:

इस विषय के अंतर्गत छात्रों को सहकारिता (Cooperatives) की अवधारणा, उसके प्रकार, महत्व और समाज में
उसकी भूमिका को समझना है। साथ ही यह जानना है कि किस प्रकार सहकारिता संगठनों के माध्यम से आर्थिक एवं सामाजिक विकास संभव होता है।

संभावित गतिविधियाँ:

1. **रिपोर्ट लेखन** – "भारत में सहकारी आंदोलन का इतिहास एवं योगदान" पर एक रिपोर्ट तैयार करें।

2. **पोस्टर निर्माण** – "सहकारिता: सबका साथ, सबका विकास" विषय पर रचनात्मक पोस्टर बनाएं।

3. **निबंध लेखन** – "सहकारिता: एक सामाजिक शक्ति" विषय पर 300 शब्दों का निबंध लिखें।

4. इंटरव्यू कार्य – किसी स्थानीय सहकारी संस्था (जैसे सहकारी बैंक, दुग्ध समिति) के सदस्य से साक्षात्कार लेकर उसका विवरण प्रस्तुत करें।

5. अन्वेषणात्मक कार्य – "विश्व के प्रमुख सहकारी संगठनों" की सूची बनाकर उनमें से किसी एक पर विस्तृत जानकारी प्रस्तुत करें।

प्रस्तुति के रूप –

पोस्टर ,परियोजना (प्रोजेक्ट फाइल) चार्ट्स ,नाटक – लेखन ,स्लोगन लेखन आदि .

इस विषय को अपने पाठ्यक्रम के पाठों से जोड़ते हुए किसी एक पाठ की चित्रात्मक अभिव्यक्ति कीजिए .

व्याकरण एवं रचनात्मक कार्य ---

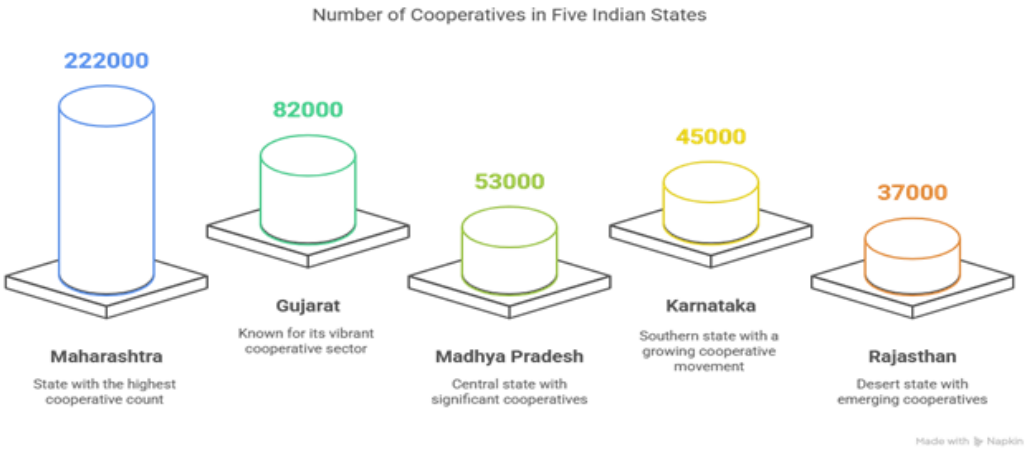
व्याकरण का नियमित अभ्यास कीजिए और स्वेच्छा से कोई पांच अनोपचारिक पत्र लिखें

प्रतिदिन हिंदी का समाचार- पत्र पढ़े और दी गए चित्रों का चित्र वर्णन कीजिए .

स्वस्थ रहिए,सकारातमक रहिए और अपने माता – पिता का सम्मान कीजिए

Mathematics.

Homework highlighting the vital role cooperatives play in sustainable development . Consider the following data representing the approximate number of cooperative societies in the top 5 states of India.



1. Calculate the percentage of the total number of cooperatives represented by each of these five states.

2. Using these percentages, construct a well-labeled pie chart to visually represent the distribution of cooperatives among these states.

3. Based on your pie chart, which state has the largest share of cooperatives among these top five? What inferences can you draw about the cooperative movement in this state compared to the others shown?

II. Using Geo-gebra applet create graph of a linear equation in two variables. Get pdf of that with your name and section being mentioned on it and share it to your subject teacher.

Worksheet

1. Find five rational numbers between 3 and 4.
2. Find three rational numbers between 3/5 and 4/5.
3. Express the following rational numbers as decimals.
   (i) $\frac{17}{100}$ (ii) $\frac{356}{400}$
4. Express the following rational numbers as decimals.
   (i) $\frac{2}{3}$ (ii) $\frac{-4}{9}$
5. Express each of the following decimals in the form p/q:

   (i) $0.\overline{5}$

   (ii) $0.47\overline{8}$

   (iii) $2.\overline{58}$
6. Write the degrees of each of the following polynomials:

   (i) $7x^3 + 4x^2 - 3x + 12$

   (ii) $12 - x + 2x^3$
7. Classify the following polynomials as linear, quadratic, cubic and biquadratic polynomials:

   (i) $x + x^2 + 4$

   (ii) $3x - 2$

7. Verify whether the indicated numbers are zeros of the polynomials corresponding to them in the following cases:

(i) $f(x) = 3x + 1$, $x =$

(ii) $f(x) = x^2 - 1$, $x = 1, -1$

8. n each of the following, use factor theorem to find whether polynomial g(x) is a factor of polynomial f(x) or, not:

   (i) $f(x) = x^3 - 6x^2 + 11x - 6$; $g(x) = x - 3$

   (ii) $f(x) = 3X^4 + 17x^3 + 9x^2 - 7x - 10$; $g(x) = x + 5$

9. Simplify each of the following:

   (i) $(x + 3)^3 + (x - 3)^3$

10. If the two points are A (-3,7) and B(-7,5), then what is (abscissa A)-(abscissa B)?

11. A point is such that (abscissa of the point, other than zero) that it equals the ordinate of the point. In which quadrants can the point lie?

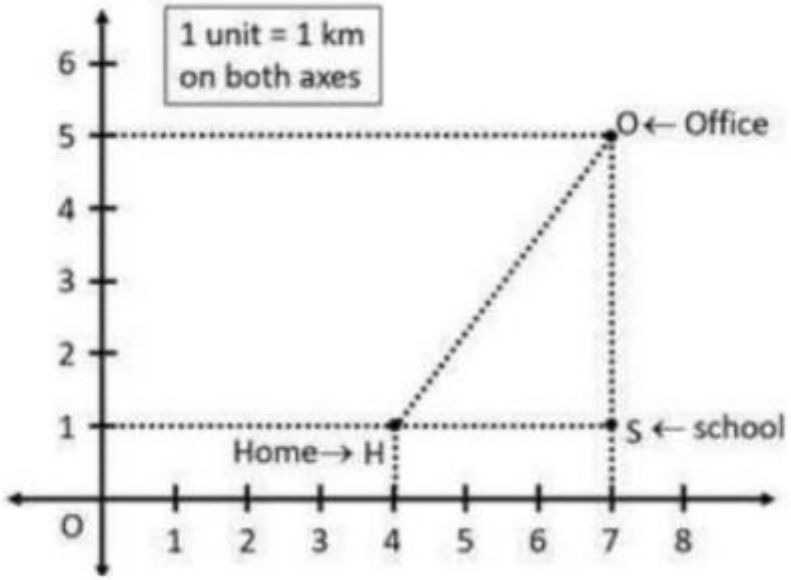
Worksheet

In the following questions, a statement of assertion (A) is followed by a statement of reason (R). Mark the correct choice as:
(a) Both assertion (A) and reason (R) are true and reason (R) is the correct explanation of assertion (A).
(b) Both assertion (A) and reason (R) are true but reason (R) is not the correct explanation of assertion (A).
(C) Assertion (A) is true but reason (R) is false.
(d) Assertion (A) is false but reason (R) is true.

1. Assertion: Rational number lying between 1/4 and 1/2 is 3/8.
   Reason: Rational number lying between two rational numbers x and y is (x+y)/2
2. Assertion: Sum of two irrational numbers $2 + \sqrt{3}$ and $4 + \sqrt{3}$ is an irrational number.
   Reason: Sum of two irrational numbers is always an irrational number.
3. Assertion : The value of 593×607 is 359951.
   Reason : $(a + b)(a - b) = a^2 - b^2$
4. Assertion : If $2x^2 - 32$ is the volume of a cuboid, then the length of cuboid can be $x - 8$.
   Reason : Volume of a cuboid = $l \times b \times h$.
5. Shalini has to reach her office every day at 8 am. On the way to her office, she drops her brother off at school. Now, the location of Shalini's home, her brother's school and her office are represented by the map below. Using the details given, answer the following questions.

i) Find the coordinates of Shalini's home.
ii) What are the coordinates of Origin.
iii) Find the distance between the Shalini's house and school.
iv) What are the coordinate of her brother's school ?

1. Shalini has to reach her office every day at 8 am. On the way to her office, she drops her brother off at school. Now, the location of Shalini's home, her brother's school and her office are represented by the map below. Using the details given, answer the following questions.



i) Find the coordinates of Shalini's home.
ii) What are the coordinates of Origin.
iii) Find the distance between the Shalini's house and school.
iv) What is the coordinate of her brother's school ?

Biology

1. Make a project

 Project Title:

"Cells and Cooperatives: Units of Life and Society"

Core Idea:

Just as a cell is the basic unit of structure and function in an organism, a cooperative is a basic unit of economic and social development in society. Both thrive on cooperation, shared function, and working together for a common goal.

Comparative Table: Cell vs Cooperative

Feature	Cell (Biology)	Cooperative (Society)
Basic Unit	Basic unit of life	Basic unit of economic and social cooperation
Structure	Made of organelles	Made of members (people)
Coordination	Organelles work together	Members work together
Nucleus Role	Controls cell activities	Management or board controls the cooperative
Energy Source	Mitochondria produce energy	Members contribute labor or capital
Waste Removal	Lysosomes help in cleaning	Management ensures efficient resource use
Communication	Chemical signals between parts	Meetings, voting, and discussions
Growth & Reproduction	Cells divide to grow	Cooperatives expand through new members

Creative Component

1:A diagram comparing a cell structure and a cooperative structure.

2 A short skit or poster showing “A Day in the Life of a Cell” and “A Day in the Life of a Cooperative.”

3 A model or chart showing how each cell organelle can represent a part of a cooperative (e.g., nucleus = leader, mitochondria = workforce, etc.).

Conclusion

Cells sustain life through cooperation of organelles, just as cooperatives sustain society through the cooperation of individuals. Both are powerful examples of how small units working together can achieve complex and essential goals.

NOTE: Your project will be assessed by

Content accuracy and Originality - 3

Presentation and Creativity-2

Assignment:

1. Why is it more efficient for a cell to be small rather than large? How does surface area to volume ratio affect cell function?

2. If an animal cell and a plant cell are placed in a hypotonic solution, how would their reactions differ and why?

3. Design an imaginary cell that can survive in extremely cold environments. What special structures or organelles would it need?

4. How would you prove that mitochondria are the “powerhouses” of the cell using an experiment or analogy?

5. If ribosomes stop working in a cell, what immediate and long-term effects would this have on the organism?

6. How does the structure of the plasma membrane help maintain homeostasis in the cell? Can you relate this to real-world filtration or security systems?

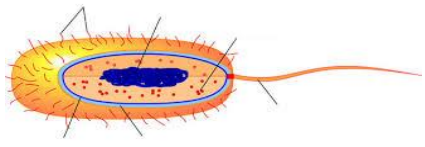
7. Why is the nucleus often compared to a "brain" of the cell? What are the limitations of this comparison?

8. Predict what would happen if plant cells lost their vacuoles. How would this affect the plant's structure and survival?

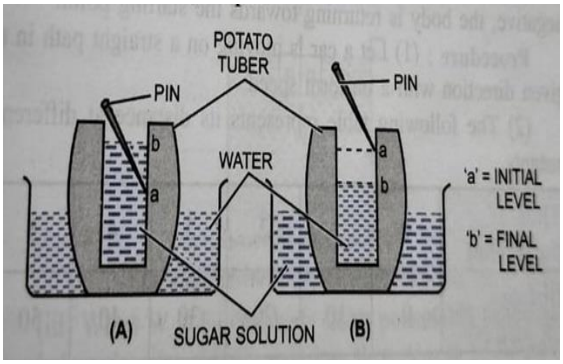
9. Imagine scientists discovered a new unicellular organism with both chloroplasts and a flagellum. What could you infer about its behavior and environment?

10. Compare the cell to a factory. What organelles would match different departments or machines, and why?

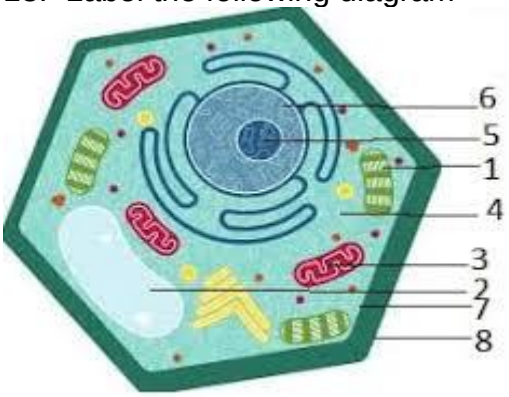
11. Label the following diagram:



12. Observe the following activity and explain it



13. Label the following diagram



Social Science

1. Poster Making Activity

   Topic: “Power of Cooperatives in Building a Better World”

   Create a colourful poster highlighting the values of cooperatives (self- help, democracy, equality). Include examples like Amul, IFFCO, SEWA etc. Also add a catchy slogan to it.

2. Case Study Presentation

   Topic: “ Success Story of a Cooperative in India or Abroad”

   Choose a cooperative (like Amul in India or Mondragon in Spain). Research how it helps people socially and economically and then present the case study via a handwritten report along with its data and pictures .

(II). CBSE PROJECT

Prepare a Project on **'DISASTER MANAGEMENT'.**

As per the CBSE curriculum, students of Class IX have to submit a project on DISASTER MANAGEMENT. Every student has to compulsorily undertake any ONE project out of the given topics from Disaster Management.

Disaster Management (Do any ONE from the following Topics)

- Earthquake
- Flood
- Drought
- Landslide
- Cyclone
- Nuclear Disaster
- Chemical and Industrial Disaster

(a). Objective:

The main objectives of giving project work on Disaster Management to the students are to:

- Create awareness in them about different disasters, their consequences and management
- Prepare them in advance to face such situations
- Ensure their participation in disaster mitigation plans
- Enable them to create awareness and preparedness among the community
- The project work should also help in enhancing the Life Skills of the students

(b). Competencies:

The students need to develop the following competencies:

- Collaboration
- Use analytical skills
- Evaluate the situations during disasters
- Synthesize the information
- Find creative solutions
- Strategize the order of solutions
- Use right communication skills

(c). The project should be developed and presented in this order:

- Cover page showing Project Title, School's Name, Student's name, Class and Section and Academic Session (year).
- Acknowledgement acknowledging the institution, offices and libraries visited and the people who have helped you in this project.
- Project Overview must include purpose, methodology, and experiences while doing the project.
- List of contents with page number (approximately 15 pages)
- Chapters with relevant headings and page numbers.
- Art Integration:

A) COLLAGE MAKING:

Prepare a collage on the different types of natural calamities that can have catastrophic effects like- Earthquake and Tsunami, Volcanoes, Landslides, Floods, Drought, Cyclone etc. by using pictures, crayons, colors etc. to encourage pupils' interest in the topic and to incorporate natural motifs with the Pattern making.

B) Write a News Report describing the natural disasters that occurred in Delhi or the recent disasters that have taken place in the country(last 3 years) and how these areas have been harmed and preparedness of these states or union territories in facing those disasters and vulnerability of these states or union territories towards disaster. It should include:

Pictures
Places of incident
Name of the Newspaper

Paper cutting of the real events

- Summary and Conclusions based on findings.
- Bibliography should have title, pages referred, author, publisher, year of publication and if a website, the name of the website with the specific link which has been used.
- Teacher's Evaluation Report (last page).

(d). Guidelines for the project

- Collect Information from various sources like newspapers, photographs, articles from magazines, internet, eyewitness accounts etc., regarding the event and the problems faced by the disaster victims

- Collect information on immediate response of various government agencies like police, hospitals, district administration, collector (local), BDO from MCD.

- Discuss the role of authorities (Indian and international agencies (CRY, WHO, UNO) in the rehabilitation process.

- In conclusion, highlight the mitigation process to include identification of risk zones, mapping community awareness and individual response.

- A case study to supplement and build upon the project should be included.

- Criteria for evaluating project work include content, accuracy, originality, presentation and creativity, initiative, cooperativeness, viva and timely submission.

NOTE:

- Only eco-friendly material should be used.
- The project should be handwritten. Print out will not be accepted.

- All the photographs or pictures should be neatly labeled and acknowledged.

PROJECT EVALUATION PROFORMA

The following Proforma should be written on the last page of the project:
School's name:
Student's name:
Roll Number:
Class:
Section:

Indicators of Assessment:

S.NO.	ASPECTS	MARKS
a.	Content accuracy, originality and collaborative skills	2
b.	Competencies exhibited and Presentation	2
c.	Viva	1

English

ENGLISH COMMUNICATIVE

1. You recently read about an elderly woman named Krishtakka, who joined a community learning group to study the Kannada script. Her determination inspired others in her village to also pursue lifelong learning. Encouraged by her cooperative spirit, write a letter to your younger brother advising him on how self-discipline and community support can help him focus on his academics again. Emphasize how being part of a positive group can motivate individuals to change for the better. (150 words)
2. People who face personal loss often recover faster when supported by others. Community and cooperative efforts play a crucial role in emotional healing. Drawing inspiration from Hooper's journey in A Dog Named Duke, write a paragraph about how shared experiences and collective encouragement help individuals cope with grief and rebuild their lives. Highlight the power of cooperation in overcoming emotional setbacks. (150 words)
3. Imagine you are the brook in Lord Tennyson's poem The Brook, but this time you represent a life-giving cooperative that nurtures villages, farms, and forests. Write a diary entry describing how your journey supports diverse life forms and how cooperation among nature's elements keeps the ecosystem thriving. Reflect on your continuous flow as a symbol of unity, resilience, and the shared responsibility we all have in sustaining the world. (150 words)

INTERDISCIPLINARY

4. Ananya and her neighbours formed a small pet care group in their colony to help stray and domestic animals stay healthy. They share responsibilities like feeding, vaccinations, and vet visits. Inspired by their cooperative effort, write a paragraph describing how responsible pet owners—and community efforts—can together ensure pets and strays receive proper nutrition and care. Include ideas like shared duties, food drives, and neighbourhood support. (150 words)

ARTIFICIAL INTELLIGENCE

Q.1 AI Project: "My First AI Drawing with AutoDraw"
Uses: www.autodraw.com
Project Title: "Let AI Help Me Draw!"
Steps to Follow:
 Step 1: Visit AutoDraw
Open a browser and go to: www.autodraw.com
 Step 2: Start Drawing
Choose the AutoDraw tool (the magic pencil icon).
Draw any one of the following (your choice!):

- A flower pot
- A bicycle
- A house with trees
- A mobile phone or a laptop

 Step 3: Use Suggestions
As you draw, AI will suggest refined drawings on top.
Click the one that matches your drawing idea.
 Step 4: Color and Decorate
Use the fill color tool to make your drawing colorful.
 Step 5: Save or Screenshot
Click the three lines (menu) and select Download or take a screenshot.
Project Work Submission:

Create a Simple 1–2 Page Report:
Title Page:
Project Title, Your Name, Roll No., Class
Page 1:
Write 4-5 lines on:

What is AutoDraw?
How did AI help in your drawing?
Paste your drawing or attach the printout

2. Make a poster or chart (horizontally) on the given topic
AI in Cooperatives: Building Smarter Communities
"Enhancing Cooperation with Technology"
How to create a chart or poster the steps are given below :-
(Top Left Section)

- Draw a simple graphic of people working together (e.g., farming, housing, etc.)
- Description:

"A cooperative is a group of people who work together to achieve a common goal. AI helps cooperatives become more efficient and effective." (Middle Section)

- Use icons or images like gears, computers, and robots to show AI in action.
- Subtopics:
  - AI in Agriculture Cooperatives (Smart farming, crop prediction, resource management)
  - AI in Credit Cooperatives (Loan prediction, financial advice, fraud detection)
  - AI in Housing Cooperatives (Building designs, resource planning, energy management)

(Bottom Left Section)

- Example:"Amul (Dairy Cooperative): AI helps in monitoring milk production, managing the supply chain, and predicting demand."
- Add an image of Amul or a dairy farm.

(Bottom Right Section)

- Use bullet points or icons to show:
  - Efficiency – Faster decision-making and automation.
  - Cost Reduction – Lower operating costs through AI optimization.
  - Member Engagement – AI chatbots or apps for better communication and management.
  - Sustainability – AI for resource optimization and waste reduction.

Center Bottom:
"AI in Cooperatives: Empowering People, Enhancing Communities"

Library

Dear Students

This summer holiday, take the opportunity to dive into the world of books and make the most of your free time. Reading not only entertains but also helps you explore new ideas, learn valuable life lessons, and develop your personality and imagination.

To help you get started, I have selected "5 suggested novels" especially suited for Class IX.These books are sure to spark your curiosity and enhance your reading habits.

Enjoy your reading journey and make this summer a season of adventure and discovery—one page at a time!
You can find these books at:
1. You're nearly at the Delhi Public Library.
2. By searching in your web browser for these suggested novels just like:

- ❖ Free Public Domain & Classic Novel

i)Project Gutenberg
ii)LibriVox
iii)Internet Archive

- ❖ User-Generated Fiction Platforms

i)Wattpad
ii)BookBub

- ❖ Library and Subscription Services

i)Amazon Prime Reading
ii)Kindle Freebies & Deals
iii)Audiobook Resources
iv)BBC Sounds App
v)LibriVox

- ❖ Apps for Mobile Reading

i)Wattpad
ii)LibriVox
iii)Kindle App
Take this time to discover yourself through stories and develop your reading profile.
Happy Reading!
– Library Department

Class 9 – Personal Development, Autobiography and Inspirational

1. MegaLiving by Robin Sharma

- Teaches us the secrets of a perfect life.

2. Facing Up by Bear Grylls

- A remarkable journey to the summit of Mount Everest

3. The Kite Runner (abridged or simplified) by Khaled Hosseini

- Explores friendship, redemption, and life in Afghanistan.

4. Magic Mind by Preeti Shenoy

- To find practical guidance and encouragement for navigating challenging times and building a more fulfilling life.

5. Keeper of the lost cities by Shannon Messenger

- To stand up for what you believe in, something we see a lot in everyday

Chemistry

"Cooperating with Chemistry: A Formula for a Sustainable Future"

Chemistry and cooperatives work hand-in-hand to build a **sustainable future**. By applying chemical knowledge, cooperatives can produce better products, protect the environment, and improve community life. Supporting cooperatives means supporting **innovation, sustainability, and social progress**—all of which chemistry helps power!

A. Research and Report (Written / Presentation)

Topic: *How Chemistry Supports Cooperatives in Various Sectors*

Instructions:

Choose **one** of the following types of cooperatives and write a short report (300–500 words) on how chemistry is involved in their work along with pictures and illustrations to support your research:

1. **Agricultural Cooperatives**
    - Role of fertilizers, pesticides, and soil chemistry
    - Sustainable and organic alternatives
2. **Dairy Cooperatives**
    - Chemistry of milk and dairy products
    - Pasteurization, fermentation, and food safety
3. **Consumer Cooperatives**

- Role of packaging, food preservatives, and product chemistry

4. **Housing Cooperatives**
   - Green building materials
   - Eco-friendly paints, insulation, and water treatment
5. **Recycling/Environmental Cooperatives**
   - Plastic recycling, biodegradable materials
   - Chemical processes in waste management

B. Chemistry in Action

Design a Simple Experiment or Model that demonstrates:

- Water purification (used by many cooperatives)
- Natural dyeing of fabrics (used in handloom/textile cooperatives)
- Soap making from natural ingredients (used in small-scale cooperative industries)

Document your experiment/model with:

- Materials used
- Procedure
- Scientific principle
- Photos or sketches

ASSIGNMENT -1

1. **A substance 'X' changes directly from solid to gas on heating and from gas to solid on cooling. What is this process called? What does this indicate about the force of attraction between its particles?**

2. **Why is it easier to compress a gas than a liquid or a solid? What does this reveal about the arrangement and behavior of particles in different states of matter?**

3. **Why do droplets of dew form on grass early in the morning even if it hasn't rained the night before?**

4. **Why does ice at 0°C feel colder than water at 0°C, even though both are at the same temperature?**

5. **Why do mountaineers carry oxygen cylinders with them even though air is present at high altitudes?**

6. **A scientist records the following temperatures for three substances A, B, and C to change states:**

Substance	Melting Point (°C)	Boiling Point (°C)
A	-5	60
B	0	100
C	25	300

- **a) Which substance is likely to be in liquid state at room temperature (25°C)?**
- **b) Which substance is a gas at room temperature?**
- **c) Justify your answers based on the temperature data.**

7. **Imagine a new state of matter is discovered that behaves like a solid in low pressure but turns into a gas when pressure is increased without any heat. Propose a name for this state and hypothesize how it might be used in real-world technology.**

8. **Study the following table showing evaporation rates of different liquids at room temperature:**

Liquid	Surface Area (cm^2)	Temperature (°C)	Humidity (%)	Time to Evaporate (min)
Water	**50**	**30**	**40**	**60**
Alcohol	**50**	**30**	**40**	**25**
Acetone	**50**	**30**	**40**	**15**
Glycerine	**50**	**30**	**40**	**80**

- **a) Which liquid evaporates the fastest and why?**
- **b) Why does glycerine take longer to evaporate compared to alcohol or acetone?**
- **c) What does this table suggest about the volatility of these liquids?**

ASSIGNMENT -2

Section A:

1. Differentiate between a true solution, a suspension, and a colloid. Give one example of each from daily life.
2. Why is air considered a mixture and not a compound? Justify with at least two reasons.
3. Why is it not advisable to use distilled water for drinking purposes even though it is pure?
4. Classify the following as homogeneous or heterogeneous mixtures:
   Milk , Vinegar , Paint , Salt solution , Blood

Section B: HOTS (Higher Order Thinking Skills) Questions

1. A chemist receives two samples: one labeled as “pure water” and the other as “distilled water.” How can she verify which one is truly pure? Describe a method and the reasoning behind it.

2. You are given a mixture of salt, sand, and iron filings. Design a step-by-step separation technique and justify the principle behind each step.
3. Why is it easier to separate the components of a mixture than to break down a compound into its elements? Use an example to support your answer.
4. In a coastal town, a factory releases waste into the nearby river, turning the water muddy and salty.
   a) Propose a method to make the water fit for drinking.
   b) Explain the scientific principle behind each method you suggest.
5. Imagine you're working in a food testing lab. A bottle labeled 'honey' arrives, but you suspect it contains added sugar.
   a) How would you test the purity of the honey?
   b) What properties would you examine to confirm it's a mixture?

Subject: Physics

ASSIGNMENT:

(I)Which of the following is a correct statement about acceleration?

a)Acceleration is always in the direction of motion.

b)Acceleration is always opposite to the direction of motion.

c)Acceleration can be in the same direction or opposite to the derection of motion

d)Acceleration is independent of the direction of motion.

(II) If a car is travelling North on a straight road and its brakes are applied then it will

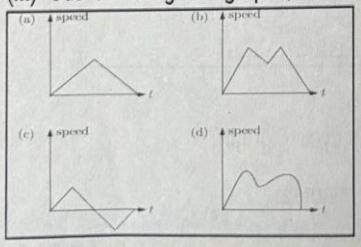
a)have no acceleration

b)accelerate to the south

c)accelerate to the north

d)accelerate either to east or west

(III) Out of the given graphs,choose which one is not possible. Justify your answer.



(IV) In the following question, 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.

Assertion : An object may have acceleration even if it is moving with uniform speed.
Reason : An object may be moving with uniform speed but it may be changing its direction of motion.

(V) Vishnu swims in a 100m pool.He covers 200m in two minutes by swimming from one end to the other and back along the same straight path.Find the speed and velocity of Vishnu.

(VI)In a long distance race,the athletes were expected to take four rounds of the track such that the line of finish was the same as the same as the line of start. Suppose the length of the track was 300m.

(i)What is the total distance to be covered by the atheletes?

(ii)What is the displacement of the atheletes when they touch the finish line?

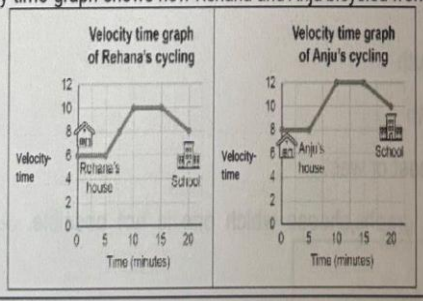
(iii)Is the motion of the atheletes uniform or non uniform? Represent your answer graphically.

(VII)Starting from a stationary position, Ravi paddles his cycle to attain a velocity of 18km/h in 20s.Then he applies brakes such that the velocity of the cycle comes to 10km/h in the next 5s. Calculate the acceleration of the cycle in both the cases.

(VII)

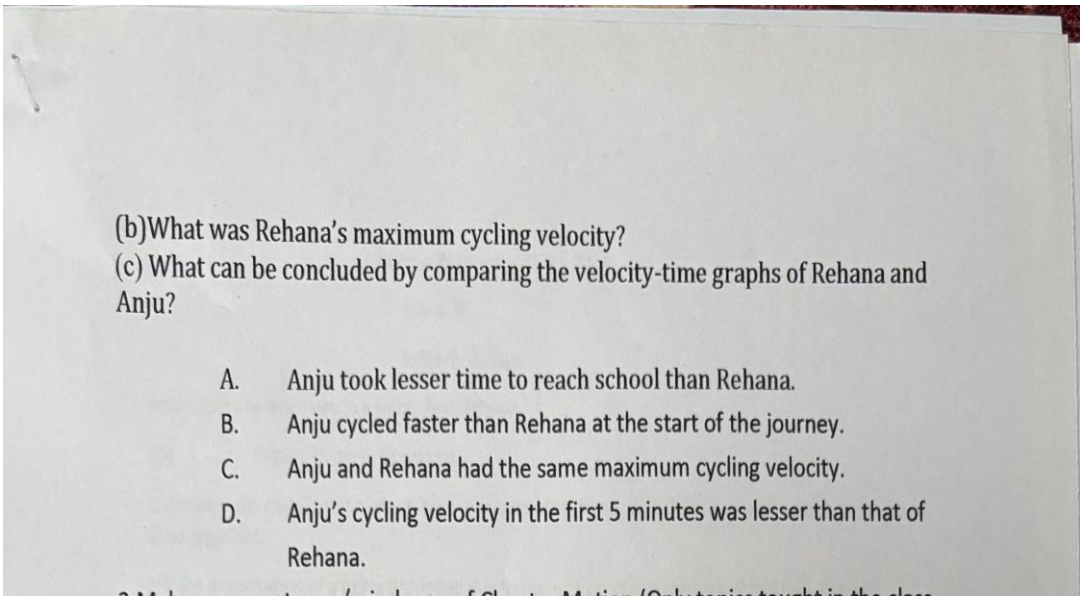
Rehana and Anju stay at different places but study in the same school.

The velocity-time graph shows how Rehana and Anju bicycled from house to school.



(a) Which statement can be concluded from Rehana's cycling graph?

A. Rehana was at rest during the first 5 minutes.
B. Rehana cycled the fastest between 5 minutes and 10 minutes.
C. Rehana cycled with uniform acceleration between 15 minutes and 20 minutes.
D. Rehana was cycling with a uniform velocity between 10 minutes and 15



(b)What was Rehana's maximum cycling velocity?
(c) What can be concluded by comparing the velocity-time graphs of Rehana and Anju?

A. Anju took lesser time to reach school than Rehana.
B. Anju cycled faster than Rehana at the start of the journey.
C. Anju and Rehana had the same maximum cycling velocity.
D. Anju's cycling velocity in the first 5 minutes was lesser than that of Rehana.

Yoga Day Homework
Date: June 21

Special Focus: Yoga & Cooperatives
Theme: ***Working Together for Wellness***

Part 1: Short Essay (150–200 words)

Topic: ***What Yoga and Cooperatives Teach Us About Unity and Cooperation***
Include points like:

- **Yoga unites body and mind — just like cooperatives unite people for a common goal.**
- **Both promote teamwork, discipline, and balance.**
- **In yoga, different body parts work together; in a cooperative, people work together.**

- **Just as yoga improves health, cooperatives improve community well-being.**

Part 2: Creative Poster or Collage

Topic: Yoga & Cooperatives – Together We Grow
Create a visual representation showing:

- **People doing yoga together (group yoga)**
- **Symbols of cooperation (hands joined, puzzle pieces, community helping)**
- **A slogan like: "Strong Body, Stronger Together" or "Yoga for Self, Cooperatives for Society"**

Learn and practice any 3 basic yoga asanas like:

  - **Tadasana (Mountain Pose)**
  - **Vrikshasana (Tree Pose)**
  - **Bhujangasana (Cobra Pose)**

    - **Write 2-3 lines about each pose: how to do it and its benefits.**

Interview or Research Brief:
Talk to a local cooperative society member (milk, credit, or farming cooperative) and ask:

- **How cooperation helps their group succeed**
- **How teamwork in cooperatives is similar to harmony in yoga**

Write a short paragraph summarizing their response.

SCHOOL ENTERPRISE CHALLENGE-

ACTIVITY- GARDENING AND SELLING PLANTS

- Choose a plant to grow in your garden.
- Take care of it.
- Ensure your plant grows healthy.
- Bring it for school enterprise challenge.