

Dear *Students (VI to VIII)*,

As you step into the summer break, it is time to unwind, explore new hobbies, and create wonderful memories with your loved ones. While this vacation is all about relaxing and recharging, keeping your curiosity alive is equally important.

To ensure a smooth transition when you return, we have put together a series of engaging summer assignments. These tasks are designed to reinforce your reading, writing, and analytical skills. Dedicating just a little time to Mathematics each day will boost your problem-solving speed and keep your concepts fresh.

Balancing fun with a bit of daily learning will give you a tremendous head start for the upcoming term.

Key Guidelines for Your Assignments

- ***Pace Yourself*** : Complete the tasks daily rather than leaving them for the end.
- ***Work Space*** : Do all assignments neatly in your classwork notebooks unless stated otherwise in the specific subject instructions.
- ***Keep it Balanced*** : Dedicate a small amount of time each day to your studies so you can enjoy the rest of your day to the fullest.

“Success is the sum of small efforts, repeated day in and day out.”

Enjoy your well-deserved break, stay safe, and come back with renewed energy and enthusiasm!

Warm regards,

Sadhana Singh

Sr. Mistress

O.P. Jindal School, Raigarh (C.G.)



Day-1 Work sheet -1 [To be done in Activity copy]

Std -7 From Barter to Money

A. Multiple Choice Questions:

Tick the correct answer:

1. Barter system means:
 - a) Buying goods with money
 - b) Exchange of goods for goods
 - c) Selling goods for profit
 - d) Storing goods
2. One major problem of barter system was:
 - a) Excess supply
 - b) Double coincidence of wants
 - c) High prices
 - d) Lack of buyers
3. Which of the following is an example of money?
 - a) Wheat
 - b) Cow
 - c) Coins
 - d) Salt
4. Commodity money refers to:
 - a) Paper notes
 - b) Goods used as money
 - c) Digital payments
 - d) Bank loans

5. Which is the modern form of money?

- a) Barter
- b) Coins only
- c) Digital payment
- d) Goods exchange

B. Assertion–Reason Questions

Choose the correct option:

- a) Both A and R are true and R is the correct explanation of A
- b) Both A and R are true but R is not the correct explanation of A
- c) A is true but R is false
- d) A is false but R is true

1. **Assertion (A):** Barter system was replaced by money.

Reason (R): Barter system had many difficulties like lack of double coincidence of wants.

2. **Assertion (A):** Money is a medium of exchange.

Reason (R): Money cannot be used to buy goods and services.

3. **Assertion (A):** Commodity money had limitations.

Reason (R): It was not always easy to store or transport.

4. **Assertion (A):** Digital payments are becoming popular.

Reason (R): They are fast and convenient.

C. Fill in the Blanks:

- 1. The barter system involves exchange of _____ for goods.
- 2. Money acts as a _____ of exchange.
- 3. Early humans used items like salt and cattle as _____ money.
- 4. ATM cards and UPI are examples of _____ money.

D. Short Answer Questions:

1. Name four important functions of money.
2. Ravi is a farmer who grows wheat. He wants a pair of shoes. The shoemaker, however, does not need wheat but wants rice.
 - a) What problem of the barter system is shown here?
 - b) How does money solve this issue?
3. Meena has ₹500 and wants to buy books and a school bag from different shops.
 - a) Which function of money is highlighted here?
4. In earlier times, people used salt and cattle as money.
 - a) Why were these items used as money?
 - b) Mention one disadvantage of such commodity money.
5. Rahul says, "Digital payments will completely replace cash in the future."
 - a) Do you agree? Give one reason.
 - b) Mention one advantage of digital money.
 - c) Mention one limitation of digital money.

6. Complete the table:

Feature	Barter System	Money System
Medium of exchange	_____	_____
Convenience	_____	_____
Common measure of value	_____	_____

Learning Outcome:

Students will understand the functions of money, its historical evolution from commodities to digital currency

Worksheet-2 (Ch-1 Geographical diversity of India)

[To be done in Activity copy]

Summer Vacation Assignment

Class-VII

Subject-Social science

Ch-1 Geographical Diversity of India

Activities to be done in activity notebook

1. Choose the correct options from the following:

1. Which factor most strongly influences the variation in climate across India?

- a) Population
- b) Latitude and relief
- c) Language
- d) Transport

2. Why are the Northern Plains ideal for agriculture?

- a) Rocky soil
- b) Less rainfall
- c) Fertile alluvial soil and water availability
- d) High altitude

3. A region in India has uneven rocky land, is rich in minerals, and has less fertile soil. People are mostly involved in mining and industries rather than farming. Identify the region from the following

- a) Plains
- b) Plateau
- c) Coastal area
- d) Mountains

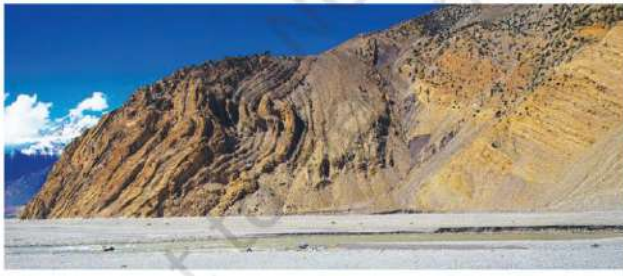
4. The Western Ghats receive heavy rainfall because:

- a) They are deserts
- b) They block monsoon winds
- c) They are flat
- d) They are cold

5. The Bhagirathi River, a major tributary of the Ganga, originates from Gaumukh. In which Indian state is Gaumukh located?

- a) Himachal Pradesh
- b) Sikkim
- c) Uttarakhand
- d) Arunachal Pradesh

6.



These types of formations occur when two plates collide. Identify the type of rock formation shown in the image.

- a) Volcanic layers
- b) Folded layers
- c) Sedimentary layers
- d) Granite layers

2.Match the Columns:

Column A	Column B
1. Himalayas	a. Fertile land
2. Northern Plains	b. Sand dunes
3. Desert	c. High mountains
4. Plateau	d. Mineral resources

3.Fill in the blanks:

1. The traditional house construction method in the western Himalayan region is known_____.
2. The northern plains are formed by the rivers _____, _____, and _____.
3. The highest peak of the Aravalli range_____.
4. The peninsular plateau is bordered by two mountain ranges_____and_____.
5. Lakshadweep is an _____located in the Arabian Sea, close to the Malabar coast of Kerala.

4.Assertion and Reasons

1. Assertion (A): The Northern Plains are very fertile.

Reason (R): They are formed by the deposition of alluvial soil by rivers.

Codes:

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true and R is not the correct explanation of A.
- c) A is true, but R is false.
- d) Both A and R are false.

2. Assertion (A): The Thar Desert has very low rainfall.

Reason (R): The region lies in the rain shadow area.

Codes:

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true and R is not the correct explanation of A.
- c) A is true, but R is false.
- d) Both A and R are false.

3. Assertion (A): The Eastern Ghats receive more rainfall than the Western Ghats.

Reason (R): The Eastern Ghats face the Arabian Sea branch of monsoon winds.

Codes:

- a) Both A and R are true and R is the correct explanation of A.
- b) Both A and R are true and R is not the correct explanation of A.
- c) A is true, but R is false.
- d) Both A and R are false.

5. Case based Question

The Aravallis play a vital role in shaping the geography and climate of northwestern India. One of its most important functions is acting as a natural barrier, preventing the Thar Desert from expanding further eastward. The Aravallis are rich in minerals like marble, granite, zinc, and copper, supporting mining and construction activities for centuries. Evidence from ancient mines at Zawar shows that Indians mastered zinc extraction over eight centuries ago. Historic forts such as Chittorgarh, Kumbhalgarh, and Ranthambore are located in this region.

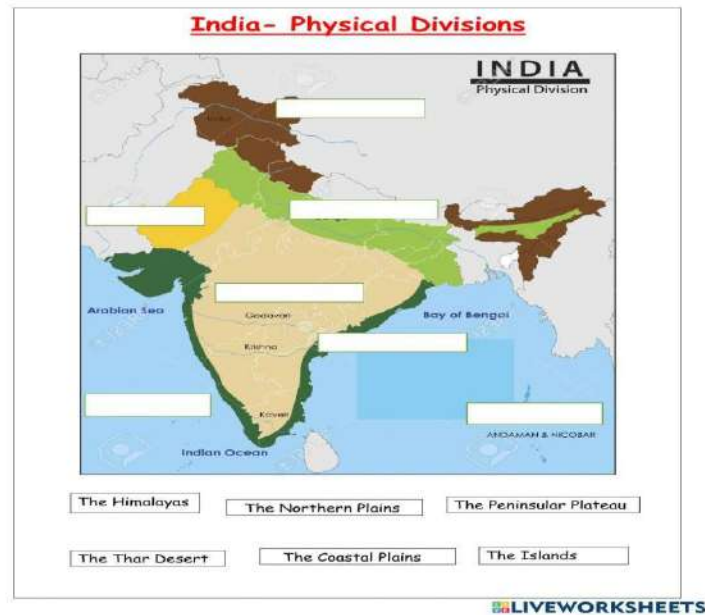
- 1) How do the Aravallis influence the geography of northwestern India?
- 2) What would happen if the Aravalli Range did not exist?
- 3) Suggest one measure to protect the Aravalli Range.

Learning Outcome:

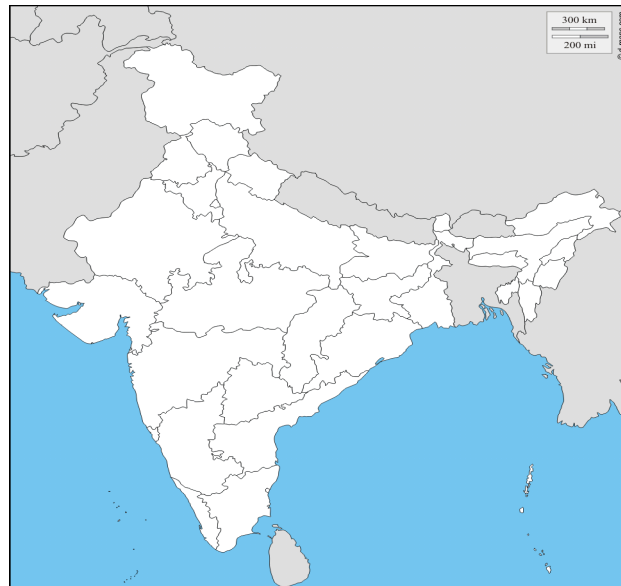
Focus on enabling students to identify major physical features and understand how these landscapes shape India's diverse climate, culture, and livelihoods.

Day-2 [To be done in Activity copy or a Printout can be taken]

a) On a Physical map of India Identify the Six Physical features of India.



b) Label and colour the areas of 16 Mahajanapadas on a Political map of India.



Learning Outcome:

- Students will be able to identify the different physical features.
- They will learn about important Mahajanapadas and identify it on map. states.

Day-3. Content – Ch-11 From Barter to Money

[Note -To be done in S.Sc Copy]

Class- 7

Chapter-11 From Barter to Money

Word meanings:

- 1. Commodities:** Products or goods that can be traded, bought and sold.
- 2. Minting:** The process of producing coins.
- 3. Currency:** System of money that is used in a particular country. For example: Rupee is the Indian currency.
- 4. Denominations:** Units in which coins and paper notes are classified. For example, Indian currency of ₹1, ₹2, ₹5 and paper notes of ₹10, ₹50 ₹100 etc.
- 5. QR codes** -Stands for “quick response” codes, these are collections of black and white squares, which are readable by devices like smartphones and QR scanners.
- 6. Obverse: The head of the coin (obverse) and the tail of coin (reverse).**

Answer the following:

Q1. How does the barter system take place and what kinds of commodities were used for exchange under the system?

Ans- The Barter System is a method of exchange in which **goods and services are directly exchanged for other goods and services without using money**. It was commonly used in ancient times before coins and currency was introduced.

Commodities used for exchange were grains (wheat, rice, barley), cloth, spices, cattle & animals (cows, goat) etc.

Q2. What were the limitations of the Barter system?

Ans- Limitations of the Barter System were:

- 1) Lack of Double coincidence of wants:** Both people must agree to exchange each other's goods.
- 2) No common measure of value:** Difficult to compare the value of one good against another.
- 3) Problem of divisibility:** Some goods **cannot be divided into smaller parts** without losing their value. For example, a **cow cannot be divided** to buy small items. This makes exchange difficult.
- 4) Problem of transport/portability:** Heavy or bulky goods are hard to carry.
- 5) Problem of durability:** Many goods used for exchange **did not last long** and could **spoil or decay quickly**.

Q3. What were the salient features of ancient Indian coins?

Ans-

- 1) Ancient coins were **made of metals** like **gold, silver and copper** or their alloys.
- 2) They were **minted by rulers** and used as official currency in their kingdoms.
- 3) Coins had **symbols (rūpas) punched or engraved** on them.
- 4) The symbols included **animals, trees, hills, kings, queens and deities**.
- 5) Coins usually had **two sides (obverse and reverse)** with different designs and were widely used in **trade within and between kingdoms**.

Q4. How has money as a medium of exchange transformed over time?

Ans.

- 1) **Barter System** –In early time, People exchanged goods directly without money.
- 2) **Commodity Money** – later, Items like salt, grains, and cattle were used as money.
- 3) **Metal Coins** – After the introduction of metals, Coins made of gold, silver, and copper were used as money.
- 4) **Paper Money** – After that, **paper money** began to be used as currency issued by government
- 5) **Digital Money** – Today, people use cards, mobile payments, and online banking, making transactions faster and more convenient.

Q5. What steps might have been taken in ancient times so that Indian coins become the medium of exchange across countries?

Ans. These were the steps taken in the ancient times-

- 1) Coins were made with **standard weight and purity** so traders could trust their value.
- 2) **Kings' seals, symbols, or inscriptions** were carved on coins to guarantee authenticity.
- 3) Coins made of **valuable metals like gold and silver** were widely accepted.

EXTRA QUESTIONS-

Q6. Explain the difficulties people face while using coins for transactions.

- 1) **Heavy to Carry**- Metal coins are heavy. Carrying a large amount of money in coins was difficult and inconvenient.
- 2) **Difficulty in Large Payments**- For large transactions, people had to carry many coins, which was inconvenient.
- 3) **Time-Consuming**:-Counting coins during a transaction takes more time than using paper money or digital payments.

Q7. What are the different ways in which money solve the problems of Barter system?

Ans-

- i. Eliminates double coincidence of wants** – In barter, both people must want each other's goods. With money, you can sell your goods to anyone and use money to buy what you need.
- ii. Divisible** – Money can be divided into smaller units like rupees and paisa, making it easier to buy goods of different values.
- iii. Standard measure of value** – Money fixed value to every good or service in terms of its price e.g.- 1kg of rice = ₹50
- iv. Store of value** – Unlike perishable goods, money can be saved and used later without losing its value.
- v. Portable** – Money is easy to carry, unlike bulky goods in barter.

Learning Outcome:

Students will understand the evolution from commodity money to metal coins, paper currency, and digital payments, alongside money's functions as a medium of exchange, unit of account, and store of value.

Day-4 Ch-4 New Beginnings: Cities and States

[NOTE -To be done in S.Sc Copy]

Ch.4. New Beginnings Cities and states

Important Terms

- i. Moat:** A deep, wide ditch surrounding a fort or a fortified city and filled with water.
- ii. Fortifications:** Strong walls built around cities **for protection.**
- iii. Uttarapatha:** An ancient trade route in northern India **which connected** north-west regions with the Ganga plains.
- iv. Dakshinapatha:** A southern trade route **that connected** north India with southern regions.

Answer the following questions:

Q1. What is meant by Second Urbanisation?

- i.** It was the rise of new cities in India during the **1st millennium BCE.**
- ii.** It mainly developed in the **Ganga plains and nearby regions.**

Q2. What were Punch-marked coins?

- i. Early coins made mainly of **silver with symbols punched on them**.
- ii. They were used for **trade and exchange**.

Q3. Why were the janapadas and mahājanapadas an important development in India's early history?

- i. **Formation of organised states:** Janapadas were early territorial states where people of the same clan settled and were ruled by a king.
- ii. **Growth into larger kingdoms:** Some janapadas merged to form mahājanapadas, which were bigger and more powerful states.
- iii. **Development of governance:** They introduced systems of administration with assemblies like sabhā and samiti, ministers, and organised rule.
- iv. **Growth of cities and trade:** Their capitals became fortified cities, encouraging trade, economic growth, and urban development.

Q4. According to the text, how were rulers chosen in early Vedic society?

- i. Early Vedic society had assemblies called sabhā and samiti, made up mainly of elders of the clan.
- ii. The king had to take advice from these assemblies while ruling.
- iii. In some cases, the assembly could select the ruler and even remove an incompetent king

Q5. Why was the development of iron metallurgy so important for the growth of urbanism in the 1st millennium BCE? You may use points from the chapter but also from your knowledge or imagination.

Ans. The development of **iron metallurgy** was very important for the growth of urbanism in the **1st millennium BCE** because

- i. Iron tools helped farmers **clear forests and increase agriculture**.
- ii. Strong iron weapons improved **military strength**.
- iii. Surplus agricultural production supported **larger populations and cities**.
- iv. Iron tools helped develop **crafts and industries**.
- v. It contributed to the **growth of trade and economic prosperity**.

Q 6. Explain the Varna–Jati system.

- i. Society was divided into **four Varnas**: Brahmins, Kshatriyas, Vaishyas and Shudras.
- ii. **Brahmins** preserved knowledge and performed rituals.
- iii. **Kshatriyas** protected the land and ruled.
- iv. **Vaishyas** engaged in trade, agriculture and business.
- v. **Shudras** worked as artisans, craftsmen and labourers.
- vi. Along with varna, **jatis were occupational groups passed through generations**.

Learning Outcome :

Students will be able to analyse Political Structure, 16 Mahajanapadas and Identify Technological Impact.

Day-5. Create a timeline showing evolution from Barter to Money on the basis of details given below. (SEA-1)

[Note: Use A-4 size paper. Paste pictures of each stage and make it creatively.]

Include these points:

Ex- 1. Barter System (Ancient Times) Exchange of goods for goods Ex: Wheat ↔ Pottery Drawback if any.	2.Commodity Money → Goods like salt, cattle, grains used as money . → Valuable and widely accepted items
3. Metal Coins (Ancient & Medieval Period) - Coins made of gold, silver, copper -Issued by kings and rulers Benefit- Durable and easy to carry Draw back if any	4. Paper Money (Modern Period) - Printed currency notes - Issued by government / central Benefit- Fast and secure transactions Draw back if any

Learning Outcome:

Students will be able to Trace the Stages of Money and know how it evolved.

Day-6. Prepare a poster or collage linking landforms with human activities (Food, Housing, and clothing)

Guidelines:

a) Divide the chart into 4 sections (or more if needed) ex- Mountains, Plains, Deserts, Coastal Areas

b) Paste or draw pictures showing:

 Food

- Mountains: fruits, dairy, millet
- Plains: rice, wheat, vegetables
- Desert: bajra, milk
- Coastal: fish, coconut

 Housing

- Mountains: sloping roof houses
- Plains: pucca houses
- Desert: mud houses, tents
- Coastal: houses on stilts

In the same way Clothing, Climate, Occupation, Natural Resources found etc.

Learning Outcome:

Analyze how landforms influence human life, including lifestyle, food habits, clothing, housing and occupations in different regions of India.

Day-7 Temples as Centres of Science, Art, and Mathematics

[To be done in Activity copy or A-4 Size paper]

Note: Select any one temple of India that are not only places of worship but also exemplify scientific knowledge, artistic excellence, and mathematical precision.

For each selected temple, present the following details:

1. Name and location of the temple- Period of construction and ruling dynasty
2. Scientific Aspects Architectural techniques (e.g., structural design, alignment with sun or directions)
3. Use of materials and engineering methods
4. Mathematical Elements Symmetry, geometry, proportions, or measurements used in construction Patterns.
5. Artistic Features
6. Paste the picture of the temple.

Learning Objective

This task aims to help students understand how ancient Indian temples were not just religious structures but also centres of advanced knowledge and creativity.

OR

Important international organisations: [To be done in Activity copy or A-4 Size paper]

Q1. Write short notes on the following:

- a) Draw or paste logos of all these organizations- BRICS, European Union, NATO, IMF, World Bank.
- b) Write in short about its composition, member nations, area of work
- c) Compare any TWO organizations based on:

Purpose, Member countries, Area of work

Learning Objective

To develop an understanding of important international organizations and their role in promoting global cooperation, peace, and economic development.



MATHEMATICS



(Solve from R S Aggarwal Book in Homework copy)

WEEK	HOMEWORK
Week -1	<ul style="list-style-type: none">• Example 1 to 6 (Page No. – 2,3)• Exercise 1A (Page No. – 3,4)
Week -2	<ul style="list-style-type: none">• Exercise 1B (Page No. – 5,6)• Exercise 1C (Page No. – 8,9)• Toothpick Digits (Page No. – 23 of Ganita Prakash) (Subject Enrichment Activity)
Week -3	<ul style="list-style-type: none">• Exercise 1D (Page No. – 11,12)• Example 1 to 4 (Page No. – 13)• Exercise 2A (Page No. – 14)
Week -4	<ul style="list-style-type: none">• Example 1 to 3 (Page No. – 15)• Exercise 2B (Page No. – 15)• Magic Square (Multiple Assessment Activity) Example 1 and 2(Page No. – 93) Exercise 6B (Page No. – 94)
Week -5	<ul style="list-style-type: none">• Example 1 and 2(Page No. – 17)• Exercise 2C (Page No. – 17,18,19)
Week -6	<ul style="list-style-type: none">• Exercise 3A (Page No. – 24,25)• Example 1 to 8 (Page No. – 32,33,34,35)• Exercise 3D (Page No. – 35)



SANSKRIT



Note :- This assignment will be considered as your MA activity. Please write in your Divyam copy.

ACTIVITY 1

अधिगमप्रतिफलानि

द्वितीयः पाठः - 'नित्यं पिबामः सुभाषितरसम्' के श्लोकों को कण्ठस्थ करके सस्वर गायन का अभ्यास करें ।

श्लोक गायने प्रवीणता

पंचमः पाठः - सेवा हि परमो धर्मः इस पाठ के आधार पर नैतिक शिक्षा को अपने शब्दों में लिखें ।

कल्पनाशक्ति का विकास

ACTIVITY 2

अधिगमप्रतिफलानि

निम्नलिखित धातुओं के रूपों का पाँचों लकारों में निर्माण करके लिखित व मौखिक अभ्यास करें -

- धाव्
- स्था
- पा

लट्लकार	एकवचन	द्विवचन	बहुवचन
प्रथमपुरुष	धावति	१)-----	२)-----
मध्यमपुरुष	३)-----	४)-----	धावथ
उत्तमपुरुष	५)-----	धावावः	६)-----

लृट्लकार	एकवचन	द्विवचन	बहुवचन
प्रथमपुरुष	पास्यति	१)-----	२)-----
मध्यमपुरुष	३)-----	पास्यथः	४)-----
उत्तमपुरुष	५)-----	६)-----	पास्यामः

लङ्लकार	एकवचन	द्विवचन	बहुवचन
प्रथमपुरुष	१)-----	अतिष्ठताम्	२)-----
मध्यमपुरुष	अतिष्ठः	४)-----	५)-----
उत्तमपुरुष	अतिष्ठम्	५)-----	६)-----

धातुरूपों का प्रयोग

लोट्लकार	एकवचन	द्विवचन	बहुवचन
प्रथमपुरुष	१)-----	२)-----	सन्तु
मध्यमपुरुष	३)-----	४)-----	स्त
उत्तमपुरुष	असानि	५)-----	६)-----

विधिलिङ्लकार	एकवचन	द्विवचन	बहुवचन
प्रथमपुरुष	जनीयात्	१)-----	२)-----
मध्यमपुरुष	३)-----	जनीयातम्	४)-----
उत्तमपुरुष	५)-----	६)-----	जनीयाम

इसी प्रकार २० अन्य धातुओं के धातुरूप भी पाँचों लकारों में लिखें ।

क्र.	धातु	अर्थ	लट् लकार	लृट् लकार	लङ्ग लकार	लोट् लकार	विधिलिङ्ग लकार
१.	पा						
२.	स्था						
३.	पच्						
४.	नम्						
५.	घ्रा						
६.	अस्						
७.	कृ						
८.	भाष्						
९.	ज्ञा						
१०	क्री						

ACTIVITY 3

अधिगमप्रतिफलानि

निम्नलिखित शब्दरूपों का निर्माण करके लिखित व मौखिक अभ्यास करें

- रामः अकारान्त-पुल्लिङ्ग,
- रमा आकारान्त-स्त्रीलिङ्ग,
- भवनम् अकारान्त-नपुंसकलिङ्ग,

अन्य :- अकारान्तपुल्लिङ्ग, इकारान्तपुल्लिङ्ग, उकारान्तपुल्लिङ्ग, ऋकारान्तपुल्लिङ्ग, आकारान्तस्त्रीलिङ्ग, इकारान्तस्त्रीलिङ्ग, ईकारान्तस्त्रीलिङ्ग, उकारान्तस्त्रीलिङ्ग, अकारान्तनपुंसकलिङ्ग सर्वनामशब्दों(किम्,तत्,अस्मद्,युष्मद्) के शब्दरूप भी लिखें व याद करें ।

शब्दरूप-रचना

विभक्तिः	एकवचन	द्विवचन	बहुवचन
प्रथमा	नरः	नरौ	१)-----
द्वितीया	नरम्	२)----- -	३)-----
तृतीया	४)----- -	५)----- -	नरैः
चतुर्थी	नराय	६)----- -	७)-----
पञ्चमी	८)----- -	नराभ्याम्	९)-----
षष्ठी	नरस्य	१०)----- --	११)-----
सप्तमी	१२)----- --	नरयोः	१३)----- -
सम्बोधन	हे नर!	१४)----- --	१५)-----

विभक्ति	एकवचन	द्विवचन	बहुवचन
प्रथमा	निशा	१).....	निशाः
द्वितीया	निशाम्	निशे	२).....
तृतीया	३).....	४).....	निशाभिः
चतुर्थी	निशायै	निशाभ्याम्	५).....
पञ्चमी	६).....	निशाभ्याम्	निशाभ्यः
षष्ठी	निशायाः	७).....	निशानाम्
सप्तमी	८).....	निशयोः	९).....
सम्बोधन	हे निशे!	१०).....	हे निशाः !

विभक्ति	एकवचन	द्विवचन	बहुवचन
प्रथमा	भवनम्	१).....	भवनानि
द्वितीया	भवनम्	भवने	२).....
तृतीया	३).....	४).....	भवनैः

चतुर्थी	भवनाय	भवनाभ्याम्	५).....	
पञ्चमी	६).....	भवनाभ्याम्	भवनेभ्यः	
षष्ठी	भवनस्य	७).....	भवनानाम्	
सप्तमी	८).....	भवनयोः	९).....	
सम्बोधन	हे भवन!	१०).....	हे भवनानि !	

ACTIVITY 4	अधिगमप्रतिफलानि
<p>निम्नलिखित वाक्यों का संस्कृतभाषा में अनुवाद करें ।</p> <ol style="list-style-type: none"> १. मोहन खाता है । २. गीता पढ़ती है । ३. मोर नाच रहे हैं । ४. दो शेर दौड़ रहे हैं । ५. हिरण चलता है । ६. राम घर जाता है । ७. तुम सब कब जाओगे ? ८. वे दोनों बैठते हैं । ९. तुम सब पढ़ते हो । १०. वे सब देखती हैं । 	वाक्य-रचना



निर्देश:

- 1) सभी कार्य व्याकरण की उत्तर पुस्तिका में करें।
- 2) लिखावट सुंदर एवं स्पष्ट हो।
- 3) चित्रों में रंगों का प्रयोग करें।
- 4) यह होमवर्क आपकी की कल्पनाशक्ति और नैतिक मूल्यों को बढ़ाने में मदद करेगा।

प्रश्न-1. 'माँ कह एक कहानी' कविता में विराम चिन्हों का बहुत अच्छा प्रयोग किया गया है।
विराम चिन्ह इस कविता में अनेक कार्य कर रहे हैं, जैसे यह बताना कि-

*कविता पाठ करते समय कहाँ थोड़ा रुकना है (,), कहाँ अधिक रुकना है (!)

*कौन सी पंक्ति किसने कही है? पुत्र ने या माँ ने (" ")

*कहाँ प्रश्न पूछा गया है (?)

कौन-सी बात आश्चर्य से बोली गई है (!)

नीचे कविता का एक अंश बिना विराम चिन्हों के दिया गया है। इसमें उपयुक्त स्थानों पर विराम चिन्ह लगाइए -

राहुल तू निर्णय कर इसका-

न्याय पक्ष लेता है किसका

कह दे निर्भय जय हो जिसका

सुन लूँ तेरी बानी

माँ मेरी क्या बानी

मैं सुन रहा कहानी
कोई निरपराध को मारे
तो क्यों अन्य उसे न उबारे
रक्षक पर भक्षक को वारे
न्याय दया का दानी
न्याय दया का दानी
तूने गुनी कहानी

सोचो और उत्तर लिखो (Think and Answer)

प्रश्न- 2. निम्नलिखित प्रश्नों के अपने विवेक से उत्तर दीजिए-

- क. राहुल अपनी माँ से क्या चाहता था ?
- ख. हंस के घायल होने का क्या कारण था ?
- ग. माँ ने राहुल से नानी को लेकर क्या कहा ?
- घ. राहुल के पिता ने हंस के प्रति क्या प्रतिक्रिया दी ?

मूल्य बोध (Value based)

प्रश्न-3.

- क. 'तीन बुद्धिमान' कहानी से हमें क्या शिक्षा मिलती है?
- ख. "मारने वाले से बचाने वाला बड़ा होता है" - इस पंक्ति का क्या अर्थ है? अपने जीवन की किसी ऐसी घटना के बारे में लिखें जब आपने किसी पक्षी या जानवर की मदद की हो।

लोक कथा (Folk Tales)

प्रश्न-4. लोककथा किसे कहते हैं? अपने राज्य में प्रसिद्ध किसी एक लोककथा के बारे में लिखिए।

संवाद लेखन (Dialogue Writing):

प्रश्न-5. क. भविष्य की योजनाओं के बारे में अपने और पिता जी के बीच के संवाद को अपने शब्दों में लिखिए।
ख. यदि आप उस घायल हंस की जगह होते जिसे सिद्धार्थ ने बचाया था, तो आप सिद्धार्थ और देवदत्त से क्या कहते? अपने शब्दों में एक छोटा संवाद लिखें।

कला परियोजना (Art Project):

प्रश्न-6. सिद्धार्थ द्वारा हंस की रक्षा करते हुए एक सुंदर चित्र बनाएँ और नीचे एक स्लोगन (नारा) लिखें: "जीवों पर दया करें।"

शब्दावली: (Use the words appropriately in a sentence)

प्रश्न-7. 'मातृभूमि' पाठ में आए किन्हीं 5 कठिन शब्दों के अर्थ ढूँढें और उनसे नए वाक्य बनाएँ।

रचनात्मक कार्य: (Creative Writing Skills)

प्रश्न- 8. 'गोल' शब्द का उपयोग करके एक छोटी कविता या 5 मुहावरे लिखें (जैसे: जीवन का गोल/लक्ष्य)।

सूचना लेखन: (Notice Writing)

प्रश्न- 9. ट्यूशन क्लास के दौरान आपकी साइकिल खो गई है। इस पर एक सूचना-पत्र तैयार कीजिए।

प्रश्न- 10. निम्नलिखित शब्दों के अर्थ लिखिए।

निर्धन	तीव्र बुद्धि	निर्दोष
संचित	वीरान	उद्यान
पैनी दृष्टि	संभावित	शंका

सामान्य रचनात्मक कार्य (दोनों पाठों को जोड़ते हुए) - डायरी लेखन: (Diary Entry)

प्रश्न- 11. गर्मी की छुट्टियों के किसी एक ऐसे दिन का वर्णन करें जब आपने कोई खेल खेला हो या किसी की मदद की हो।

अभ्यास पत्र (अवकाश गृहकार्य)

प्रश्न 1-निम्नलिखित गद्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनिए।

पृथ्वी द्वारा सूर्य की परिक्रमा करने से ऋतुओं में परिवर्तन होता है। प्रकृति सदैव अपने रंग- रूप में परिवर्तन करती रहती है और यही परिवर्तन प्रकृति का नियम है। यही कारण है कि भारतवर्ष में छः ऋतुएँ होती हैं। सभी ऋतुओं का अपना-अपना महत्त्व है और सभी की अपनी- अपनी शोभा है परन्तु वर्षा, शरद, शिशिर, हेमंत, वसंत और ग्रीष्म में से वसंत ऋतु का विशेष महत्त्व है। ग्रीष्म अपने भयंकर ताप से पृथ्वी को तपाता है, तो वर्षा अपने ठंडे-ठंडे जल से धरती की प्यास बुझाती है। शरद और हेमंत अपनी सर्द हवाओं से कंपन उत्पन्न करते हैं। शिशिर पेड़-पौधों के पत्तों को झटक लेता है। इसके विपरीत वसंत सर्वत्र सौंदर्य और उल्लास बिखेरकर मानव से मन को प्रसन्नता व उमंग से भर देता है। चैत्र और वैशाख के महीने वसंत ऋतु के होते हैं। वसंत ऋतु में न अधिक गरमी होती है, न अधिक सरदी। जलवायु भी बहुत सुहावनी होती है।

प्रश्न १- सभी ऋतुओं में से किस ऋतु का विशेष महत्त्व है?

- अ- शिशिर ऋतु ब- वसंत ऋतु स- हेमंत ऋतु द- वर्षा ऋतु

प्रश्न २- भारत वर्ष में एक वर्ष में कितनी ऋतुएँ होती हैं?

- अ- दस ब- छः स- बारह द- तीन

प्रश्न ३- वसंत ऋतु में क्या होता है?

- अ- अधिक वर्षा होती है। ब- फूल खिलते हैं स- बहुत गरमी पड़ती है। द- उपरोक्त सभी

प्रश्न ४- ऋतुओं में परिवर्तन क्यों होता है?

- अ- चंद्रमा द्वारा पृथ्वी की परिक्रमा के कारण
ब- पृथ्वी द्वारा सूर्य की परिक्रमा के कारण
स- चाँद और सूरज के कारण
द- विभिन्न प्रकार के मशीनों के कारण

प्रश्न ५- 'ग्रीष्म ऋतु' के बाद कौन-सी ऋतु आती है?

- अ- शीत ऋतु
- ब- वर्षा ऋतु
- स- वसंत ऋतु
- द- पतझड़

प्रश्न २- निम्नलिखित काव्यांश को ध्यानपूर्वक पढ़कर पूछे गए प्रश्नों के सही विकल्प चुनिए।

पर्वत पर है गाँव हमारा,
कितना सुन्दर कितना प्यारा।
ऊँचे-ऊँचे शिखर तने हैं
नीचे तरुवर खड़े घने हैं।
और नदी की चंचल धारा,
पर्वत पर है गाँव हमारा
उमड़-घुमड़कर बादल आते,
दौड़-दौड़ घर में घुस जाते।
जैसे कोई नटखट बालक,
उधम करता, लगता प्यारा।
पर्वत पर है गाँव हमारा।

(१) कवि का गाँव कहाँ स्थित है?

- अ- तराई में
- ब- पहाड़ पर
- स- मैदानी इलाके में
- द- नदी के किनारे

(२) 'तरुवर' शब्द का अर्थ है-

- अ- नदी
- ब- पेड़
- स- पक्षी
- द- जानवर

(३) उमड़-घुमड़कर घरों में घुसने वाले बादलों की तुलना कवि ने किससे की है?

अ- नटखट बालक से ब- वयोवृद्ध से स- युवा लड़की से द- सुंदर औरत से

(४) कविता में चंचल किसे कहा गया है?

अ- पेड़ों को ब- नदी की धारा को स - पर्वत शिखर को द- बादलों को

(५) 'पर्वत' शब्द का पर्यायवाची है।

अ- पहाड़, गिरि, अचल ब- जलद, अचल, नग स- पहाड़, जलधि, नद्य द- गिरि, तरु, पंछी

प्रश्न ३- दिए गए निर्देशों के अनुसार रिक्त स्थानों की पूर्ति कीजिए।

- 1) 'अध्यापक पढ़ा रहे थे।' यह वाक्य ----- काल का उदाहरण है। (काल के भेद का नाम)
- 2) मैं ----- करता हूँ कि तुम यह काम कर लो। (उपेक्षा/अपेक्षा – उचित शब्द चुन कर लिखें)
- 3) कुछ ----- तक मैं घूमती रही फिर ----- दुखियों की सेवा में लग गई। (दीन-दिन)
- 4) हमें अपने से बड़ों का -----करना चाहिए। इसके ----- कोई पुण्य नहीं है। (सम्मान- समान)
- 5) शेर को देखकर ----- प्राण ही निकल गए। (मेरा/मेरे)

प्रश्न ४- सही विकल्प चुनिए।

१ - निम्नलिखित में से कौन-सा वाक्य भूतकाल का उदाहरण है?

- अ- आज वर्षा होगी। ब- वर्षा हो रही है।
स - हम बाज़ार गए थे। द- मैं खाना खा रही हूँ।

२ - कौन-सा वाक्य शुद्ध है?

- अ- लड़का ने पत्र लिखा। ब- मेले में बहुत लोगों की भीड़ थी।
स- तुम्हारे को शर्मा जी बुला रहे हैं। स- वे अच्छे लोग नहीं हैं।

३ - 'खुशी से फूला न सामना' मुहावरे का उचित अर्थ है।

अ- बहुत दुखी होना ब- बहुत खुश होना स- बहुत रोना द- उदास होना

४- 'पत्ता' तथा 'चिट्ठी' शब्द के लिए एक शब्द है।

अ- मित्र ब- नभ स- मंगल द- पत्र

५- 'शर-सर' शब्द का उचित अर्थ है-

अ- तीर-सरोवर ब- बराबर-आदर स- तरफ़-तथा द- हृदय-भीतर

६ - 'घर' तथा 'संसार' शब्द के लिए उचित समश्रुतिभिन्नार्थक शब्द है-

अ- भुवन-भवन ब- भावना-भवन स- भवन-भुवन द- भावन- भावना

७ - 'पिताजी अखबार पढ़ रहे हैं।' वाक्य में क्रिया का भेद है।

अ- सकर्मक क्रिया ब- अकर्मक क्रिया स- द्विकर्मक क्रिया द- इनमें से कोई नहीं

८ - इनमें से किस वाक्य में निश्चित संख्यावाचक विशेषण का प्रयोग हुआ है?

अ- दो लोग आ रहे हैं। ब- कुछ लोग बैठे हैं।
स- वह लड़का मेरा भाई है। द - थोड़ी-सी चीनी लाना।

९ - कौन-सा वाक्य अशुद्ध है?

अ- तुम्हारा थैला बहुत भारी है। ब- यह मेरी किताब है।
स- वह मुंबई से लौट आई। द - कृपया मेरे घर आने की कृपा करें।

प्रश्न ५ - निम्नलिखित वाक्यों को शुद्ध करके लिखिए।

- क- तुम्हारे थैला बहुत भारी है। -----
ख- रोटी तो मिल गया,पर सब्जी नहीं मिली। -----
ग- मुझे एक फूलों की माला चाहिए। -----
घ- तेरे से क्या गलती हुई। -----
ङ- इस जगह का नाम तेरे को नहीं मालूम। -----

प्रश्न ६ - निम्नलिखित प्रश्नों के उत्तर निर्देशानुसार लिखें।

अ - नीचे लिखे शब्दों के पर्यायवाची शब्द लिखिए

- १- अंबर- -----
२- अहंकार - -----
३- गंगा - -----
४- जल - -----
५- कमाल - -----

ब - नीचे लिखे शब्दों के विलोम शब्द लिखिए

- १- अपव्ययी - ----- २- उपस्थित - -----
३- कृत्रिम - ----- ४- कीर्ति - -----
५- उन्नति - ----- ६- दयालु- -----
७- प्रत्यक्ष - ----- ८- निर्माण - -----

स- निम्नलिखित मुहावरों के अर्थ लिखकर वाक्यों में प्रयोग करें।

- १- आकाश- पाताल एक करना- -----
वाक्य - -----
२- ईद का चाँद - -----
वाक्य - -----

३- आँखे तरसना -

वाक्य -

४- आसमान से बातें करना-

वाक्य -

५- कान कतरना-

वाक्य -

प्रश्न ७ - निम्नलिखित में से किसी एक विषय पर अनुच्छेद लिखिए।

अ- सच्चा मित्र ब- महानगरों की यातायात समस्या स- स्वास्थ्य ही सबसे बड़ा धन

प्रश्न ८ - कुसंगति से बचकर रहने की शिक्षा देते हुए अपने छोटे भाई को पत्र लिखिए।

नोट- रचनात्मक प्रश्नों का अभ्यास हिन्दी व्याकरण उत्तर पुस्तिका में करें।



ENGLISH



GENERAL INSTRUCTIONS

- ❖ All the work should be neatly completed in the English notebook.
- ❖ Maintain good handwriting and presentation.
- ❖ Write answers in complete, meaningful sentences.

Q1. Read the passage and answer the following questions:

In the quiet valley of Sundarpur, nestled between undulating hills and dense forests, stood an ancient library that had long been abandoned. Its crumbling walls and dust-laden shelves bore silent testimony to a time when knowledge was revered and sought after with great enthusiasm. Generations had passed, and with them, the significance of the library had gradually faded into oblivion.

One day, a young girl named Anaya stumbled upon the forgotten structure while exploring the outskirts of her village. Unlike others who dismissed it as a mere ruin, Anaya felt an inexplicable curiosity drawing her closer. As she cautiously stepped inside, she noticed rows of old books, their pages yellowed with age yet filled with untold stories and wisdom.

Determined to revive the lost treasure of knowledge, Anaya began visiting the library regularly. She cleaned the shelves, arranged the books, and even started reading them. Her passion soon became contagious. Slowly, other children from the village joined her, intrigued by her dedication.

However, the journey was not without challenges. Many villagers considered her efforts futile, arguing that modern technology had rendered such places obsolete. Yet, Anaya remained steadfast. She believed that books possessed a timeless value that no digital medium could replace.

Over time, her perseverance bore fruit. The library was restored, becoming a centre of learning and inspiration. It not only rekindled the villagers' interest in reading but also strengthened their sense of community.

Anaya's initiative exemplifies how determination, when combined with a clear purpose, can revive even the most neglected treasures.

MCQs (Choose the correct option)

The word “undulating” most nearly means:

- a) Flat
- b) Rising and falling
- c) Rocky
- d) Dry

The library was abandoned because:

- a) It was destroyed
- b) People lost interest in it
- c) It was too small
- d) It was dangerous

What drew Anaya towards the library?

- a) Fear
- b) Curiosity
- c) Pressure
- d) Habit

Identify the tone of the passage:

- a) Humorous
- b) Reflective and inspiring
- c) Angry
- d) Sarcastic

“Contagious” in the passage means:

- a) Dangerous
- b) Easily spread
- c) Harmful
- d) Temporary

Which quality best describes Anaya?

- a) Careless
- b) Determined
- c) Lazy
- d) Confused

Identify the part of speech of “revive”:

- a) Noun
- b) Verb
- c) Adjective
- d) Adverb

Why did villagers oppose her efforts?

- a) Lack of space
- b) Belief in technology replacing books
- c) Financial issues
- d) Personal dislike

What was the final outcome?

- a) Library demolished
- b) Children stopped coming
- c) Library restored
- d) Books destroyed

The central idea of the passage is:

- a) Technology is harmful
- b) Libraries are outdated
- c) Determination can bring change
- d) Villages lack facilities

Q2. Read the passage and answer the following questions:

In a world increasingly driven by speed and convenience, the virtue of patience often seems overshadowed by the desire for instant gratification. Yet, true growth—whether intellectual, emotional, or moral—demands time, effort, and resilience.

Consider the journey of a sculptor working meticulously on a block of marble. To an untrained eye, the process may appear slow and repetitive, even monotonous. However, with each careful strike of the chisel, the sculptor brings the hidden masterpiece closer to reality. What emerges eventually is not merely a statue, but a reflection of dedication, precision, and unwavering focus.

Similarly, in life, individuals are often confronted with challenges that test their endurance. Failure, criticism, and setbacks are inevitable companions on the path to success. Those who persevere, however, learn to view these obstacles not as barriers but as stepping stones. They develop a deeper understanding of their capabilities and emerge stronger with each experience.

It is important to recognise that success achieved hastily often lacks depth and sustainability. In contrast, success built through consistent effort carries with it a sense of fulfillment and pride. It shapes character, instills discipline, and fosters a mindset that values growth over immediate reward.

Thus, patience is not merely the ability to wait, but the capacity to remain steadfast in the face of adversity. It is a quiet strength that, though often overlooked, forms the foundation of lasting achievement.

1. What is the central idea of the passage? Explain in your own words.
2. Explain the sculptor example and its significance.
3. How should failures be viewed according to the passage?

4. Find words from the passage that mean:

- a) Strong determination
- b) Difficult situations

5. Identify:

- a) One abstract noun
- b) One adjective
- c) One verb

Q3. Fill in the blanks with the correct form of verb given in the bracket:

- a) She _____ (write) a letter every week.
- b) They _____ (play) chess regularly.
- c) He _____ (go) to the gym daily.
- d) We _____ (learn) new things every day.
- e) The earth _____ (revolve) around the sun.
- f) She _____ (not like) spicy food.
- g) _____ he _____ (read) books daily?
- h) They _____ (visit) their grandparents often.
- i) The teacher _____ (explain) the lesson clearly.
- j) I _____ (prefer) tea over coffee.
- k) She _____ (complete) her homework on time.
- l) We _____ (watch) educational programs.
- m) He _____ (drive) carefully.
- n) Birds _____ (fly) in the sky.
- o) Water _____ (boil) at 100°C.

Q4. Identify Present / Past / Future Continuous:

- a) She is reading a novel.
- b) They were playing football.
- c) I will be studying at 8 pm.
- d) He is working hard.
- e) We were discussing the topic.
- f) She will be travelling tomorrow.
- g) I am writing an essay.
- h) They were watching a movie.
- i) He will be completing his work.
- j) We are preparing for exams.
- k) She was singing beautifully.
- l) I will be waiting for you.
- m) They are building a house.
- n) He was learning French.
- o) We will be attending the meeting.

Q5. Do as directed:

- a) She is reading. (Change to Past Continuous)
- b) They were playing. (Change to Present Continuous)
- c) I am writing. (Change to Future Continuous)
- d) He will be working. (Change to Present Continuous)
- e) We are studying. (Change to Past Continuous)
- f) She was dancing. (Change to Future Continuous)
- g) They will be playing. (Change to Past Continuous)
- h) I was reading. (Change to Present Continuous)
- i) He is speaking. (Change to Future Continuous)
- j) We will be travelling. (Change to Present Continuous)
- k) She is cooking. (Change to Past Continuous)
- l) They were running. (Change to Future Continuous)
- m) I am learning. (Change to Past Continuous)
- n) He will be eating. (Change to Present Continuous)
- o) We are writing. (Change to Future Continuous)

Q6. Fill in the blanks with the correct form of verb given in the bracket:

- a) She _____ (read) a book now.
- b) They _____ (play) when I arrived.
- c) I _____ (study) tomorrow evening.
- d) He _____ (eat) lunch now.
- e) We _____ (watch) TV last night.
- f) She _____ (travel) next week at this time.
- g) They _____ (dance) on stage now.
- h) I _____ (write) yesterday evening.
- i) He _____ (work) tomorrow afternoon.
- j) We _____ (learn) English now.
- k) She _____ (paint) a picture currently.
- l) They _____ (run) when the bell rang.
- m) I _____ (prepare) for exams tomorrow. He _____ (repair) the car now.
- n) We _____ (discuss) the project yesterday.

Q7. Write the notes and exercises of Determiners in your class notebook.

DETERMINERS

Determiners are words that come before nouns to provide clarity about which, whose, how many, or how much.

Types of Determiners:

- A. Articles (a, an, the)
- B. Demonstratives (this, that, these, those)
- C. Possessives (my, your, their)
- D. Quantifiers (some, many, few, little)
- E. Numbers (two, first)
- F. Interrogatives (which, whose)

Example:

- A. Those students are attentive.
- B. I have many books.

Exercise 1: Fill in the blanks with suitable determiners:

- a) I saw _____ elephant.
- b) _____ boy is very intelligent.
- c) She has _____ friends.
- d) _____ are my books.
- e) This is _____ house.
- f) There are _____ apples in the basket.
- g) I need _____ information.
- h) _____ girl is singing.
- i) He has _____ pencils.
- j) _____ book do you want?

Exercise 2: Choose the correct determiners:

- a) _____ (This/These) apples are fresh.
- b) I have _____ (much/many) books.
- c) She has _____ (a/an) umbrella.
- d) _____ (Which/Who) book is yours?
- e) There is _____ (some/any) milk in the glass.
- f) He is _____ (my/mine) friend.
- g) _____ (That/Those) boy is running.
- h) She has _____ (few/little) patience.
- i) I need _____ (a/an) hour.
- j) _____ (Whose/Who) bag is this?

Q8. Earth in 2050 – A Warning or a Hope?

Imagine what our planet Earth might look like in the year 2050. Will it be a place full of greenery, clean air, and happy living beings, or will it suffer from pollution, climate change, and loss of natural resources? Design a creative and meaningful poster based on your imagination.

Your poster should include:

- 1. A clear and powerful slogan that captures your idea.
- 2. Creative and relevant visuals (drawings, symbols, or images) to show your vision of Earth.
- 3. A short key message (2–3 lines) explaining what you want people to understand or do.
- 4. Proper use of colours and layout to make your poster attractive and impactful.

Q9. Voices of the Voiceless – Save Animals

Animals cannot speak for themselves, but they also feel pain, fear, and love. Many animals today are suffering due to human activities such as deforestation, hunting, and pollution. Create an awareness poster to speak on behalf of animals and encourage people to protect them.

Your poster should include:

- A. An emotional appeal that touches the viewer's heart.
- B. A strong and clear message or slogan about saving animals.
- C. Creative and meaningful visuals (animals in danger, rescue, or protection scenes).
- D. A brief message (2–3 lines) suggesting how people can help animals

Q10. Many students in your school have talents like art, music, and craft but do not get enough opportunities to develop them. Write a letter to the Principal requesting permission to start a Hobby Club. Explain the need for the club, the activities it will include, and how it will benefit students.

Q11. Your class wants to organise an educational trip to a place of learning such as a museum or historical site. Write a letter to your Principal requesting permission for the trip. Mention the place, its importance, and assure proper discipline.

Q12. Write 5 meaningful sentences daily using Spell Bee words.

Q13. Language development plan based activity - Creative Story Writing

You are required to create an interesting story written by you. Write an original story in about 150–200 words by using any one story starter mentioned bellow.

Students are required to write an original story and then record themselves narrating it. The video should be 1–2 minutes long and must be submitted to their concerned English teacher on 14th June 2026.



Choose any one of the following interesting story starters:

- A. "This summer vacation was supposed to be boring... until something unbelievable happened on the very first day..."
- B. "As our train slowly stopped at a strange, unfamiliar station, I had no idea this trip would change my life..."
- C. "I thought it would be just another visit to my grandparents' house, but the old trunk in the corner told a different story..."
- D. "Our road trip took an unexpected turn when we got lost in a place that wasn't even on the map..."
- E. "I thought vacations were only about fun and rest, until this one taught me an important lesson..."

CREATIVE STORY WRITING

Language Development Programme

for Grade 7 Students

Imagine • Write • Create • Share

HOW TO CREATE A VIDEO

- 1 CHOOSE YOUR STORY**
Pick an interesting idea. Think about characters, setting and the message.
- 2 PLAN YOUR STORY**
Write the main points. Create a short outline or storyboard.
- 3 WRITE YOUR SCRIPT**
Write dialogues and narration. Keep it simple and clear.
- 4 PREPARE YOUR SHOTS**
Decide what you need – characters, props, locations, costumes.
- 5 SHOOT YOUR VIDEO**
Use a camera or phone. Record your scenes one by one.
- 6 EDIT YOUR VIDEO**
Arrange the clips, add music, text or effects. Make your story come alive!

HOW TO RECORD A VIDEO

- 1 CHECK YOUR EQUIPMENT**
Use a phone or camera. Make sure the battery is charged and storage is enough.
- 2 FIND A GOOD LOCATION**
Choose a quiet place with good lighting. Avoid too much background noise.
- 3 SET UP YOUR CAMERA**
Hold the camera steady or use a tripod. Keep the subject in the frame.
- 4 CHECK BEFORE RECORDING**
Do a quick test recording. Check the video and audio. Make adjustments if needed.
- 5 RECORD YOUR VIDEO**
Press record and speak clearly. Look at the camera and be confident!
- 6 REVIEW AND SAVE**
Watch your video. If you're happy, save it. Then you can edit or share it.

★ Your story has the power to inspire. Create with heart and share with the world! ♥

Your work should include:

- a. A suitable and creative title for your story.
- b. Use of at least 20 Spell Bee words (these words must be clearly highlighted).
- c. A clear moral or message at the end of the story.
- d. Ensure that your story is well-structured with a proper beginning, middle, and ending.

Q14. Prepare a chart on Parts of Speech / any grammar topic of your choice. Prepare the chart in a A4/A3 size chart paper.

Q15. Class Notes

Topic: Unit 1 Learning Together

LESSON : Three Days To See

Note: To be noted in the copy-

Q II: Answer the following questions. Page No.33

1: The sense of touch makes up for the loss of sight and hearing. Explain this statement with reference to the text.

Ans) The author feels the texture of leaves, tree bark, and a bird's quiver through touch. This helps her enjoy nature and understand emotions, making up for not seeing or hearing.

2: Why does the author believe that the sense of sight is the most wonderful?

Ans) The author believes sight is the most wonderful because it reveals more beauty, like the colors of nature and people's expressions, which she can only imagine through touch.

3: How might the author's opinion on making the most of our senses guide us to be kinder towards people with special abilities?

Ans) The author's advice to value senses teaches us to appreciate what others might lack. This makes us more understanding and supportive of people with special abilities.

4: What is the significance of imagining the loss of a sense, according to the author?

Ans) Imagining the loss of a sense makes us value it more and use it fully, appreciating the world's beauty before it's gone.

5: How does the author encourage people to approach their everyday sensory experiences?

Ans) The author encourages people to use their senses fully, as if they might lose them tomorrow, to enjoy the world's beauty and pleasures.

6: What do the author's choices for the three days tell us about her values and priorities?

Ans) Her choices show she values relationships (seeing friends on Day 1), learning about history and progress (museums on Day 2), and understanding people's lives (city on Day 3).

Q16. Let us learn [Page No 35] To be noted in the book.

I: Sensory words are descriptive—they describe how we experience the world: how we see, hear, smell, taste or feel something.

Complete the following table with sensory words from the text in Column 2 for the five senses in Column 1. Add new words in Column 3.

Column 1	Column 2	Column 3
What you see	panorama	view
What you hear	music	sound
What you smell	perfume	fragrance
What you taste	relish	flavor
What you feel	rough	soft

Note: To be done in the book only.

- 1: The author expresses a deep longing to experience the world through the sense of hearing. False.
- 2: The author would like exploring the city only to observe how people are suffering. False.
- 3: The author would spend the first day seeing the people whose kind-heartedness and friendship have enriched her life. True.
- 4: The author acknowledges that even in three days, she would not be able to see everything. True.
5. The author feels that everyone can find the greatest joy merely by the sense of touch. False.
- 6: The author advises those who can see to appreciate every moment as if they might lose their senses tomorrow. True.
- 7: On the third day, the author would like to observe people in their daily lives and understand their experiences. True.

QII: Complete the table given below with what Helen Keller wanted to do on the three days if she had sight.

Answer		
Day 1	Day 2	Day 3
See the people, know her friends from the feel of their faces, see into the heart of a friend	Arise with the dawn, see the sunrise, visit museums to see man's progress, see history of animals and races	Spend in the city, watch people in their daily lives, see their smiles, determination, and suffering

QIII: The author says that you need eyes to be able to 'see' the true self of a person. Therefore, she refers to the eye as 'window of the soul'. How is the narrator able to understand the feelings of a person?

Answer- The narrator understands feelings by touching people's faces. She feels laughter, sorrow, and other emotions through her fingertips.

Let us think and reflect

QI: Read the extracts given below and answer the questions that follow.

1: I feel the delicate symmetry of a leaf. I pass my hands lovingly about the smooth skin of a silver birch, or the rough, shaggy bark of a pine. In spring, I touch the branches of trees hopefully in search of a bud, the first sign of awakening Nature after her winter's sleep. Occasionally, I am very fortunate; I place my hand gently on a small tree and feel the happy quiver of a bird in full song.

(i): What does the 'delicate symmetry of a leaf' symbolise?

Answer: It symbolises the beauty and balance in nature.

(ii): List two phrases from the extract that describe the texture of objects in nature.

Answer1. Smooth skin of a silver birch

2. Rough, shaggy bark of a pine

(iii): Complete the sentence appropriately. The phrase 'awakening Nature after her winter's sleep' refers to_____

Answer: the start of spring when nature comes alive with new growth.

(iv): What is the tone of the writer in this extract?

Answer C. admiring

2: The next day I should arise with the dawn and see the thrilling miracle by which night is transformed into day. I should behold with awe the magnificent panorama of light with which the sun awakens the sleeping earth. This day I should devote to a hasty glimpse of the world, past and present. I should want to see the pageant of man's progress, and so I should go to the museums.

(i) The word 'thrilling' has been used with 'miracle'. Which of the following words does not match with the word 'thrilling'?

- a) Experience
- b) Tale
- c) Knowledge
- d) adventure

Answer C. knowledge

(ii) Why does the writer refer to the earth as 'sleeping earth'?

Answer: The earth is called 'sleeping' because it seems quiet and still at night before the sun brings it to life.

(iii) Complete the sentence with an appropriate reason. The writer wishes to dedicate the day to a brief look at the present and past world because

Answer: she wants to see the progress of humans and the history of the earth in museums.



S.NO.	TOPIC	ACTIVITIES	LEARNING OUTCOME
1	Life processes in plants Chapter 10	Content writing - Write down notes, question and answers of Ch-10-life processes in plants, in your science notebook . Annexure-1	The learners will be able to- <ul style="list-style-type: none"> • Comprehend the meaning of given topics. • Relate daily life experiences with learned topics. • Study the different types of life processes in plants.
2	Worksheet#1 Ch-10-life processes in plants	Worksheet#1 Annexure-2 Competency Based worksheet. (Based on chapter-10) <u>Instruction-to be solved in printout.Printout of worksheet has to be paste/attached in science activity notebook.</u>	The learners will be able to develop - <ul style="list-style-type: none"> • Problem solving skill • Scientific temperament • Application of knowledge & understanding • Draw conclusions from the learned concepts.
3	Worksheet#2 Ch-9-life processes in animals	Worksheet#2 Annexure-3 Competency Based worksheet. (Based on chapter-9) <u>Instruction-to be solved in printout.Printout of worksheet has to be paste/attached in science activity notebook.</u>	The learners will be able to develop - <ul style="list-style-type: none"> • Problem solving skill • Scientific temperament • Application of knowledge & understanding • Draw conclusions from the learned concepts.

4	POSTER MAKING	<p>MA activity-POSTER MAKING</p> <ul style="list-style-type: none"> Details- Students will prepare a poster on Solar Eclipse/Lunar Eclipse. 	<p>By the end of this activity, students will be able to:</p> <ul style="list-style-type: none"> Define solar eclipse and lunar eclipse. Differentiate between solar eclipse and lunar eclipse. Explain the positions of the Sun, Earth, and Moon during an eclipse. Identify and describe the different types of solar and lunar eclipses.
5.	Science Quiz	<p>MA-II(Science Quiz Topics)</p> <p>Prepare concise revision notes in your science activity notebook for the Science quiz on the following topics:</p> <ol style="list-style-type: none"> Properties of Acids, Bases and Salts Electricity – Circuit and its Components Properties of Metals and Non-metals Nutrition, Respiration and Transportation in Plants and Animals Between the 1920s and 1980s, several Indian scientists made path breaking contributions to global science. Identify any five such renowned scientists and for each, state: <ol style="list-style-type: none"> Their major discovery or innovation. How their work contributed to the advancement of science and society. Current affairs related to Science and Technology <ul style="list-style-type: none"> Space exploration Discoveries and Inventions in Space Science and technology. 	<p>By the end of this activity, students will be able to:</p> <ul style="list-style-type: none"> Gain specialized understanding of the subject. Enhance their critical thinking and will get into the habit of innovative learning.

6.	MA-IV (STEM)	<p>Design a STEM-based activity for Science that demonstrates a concept from your Class 7 syllabus. Your model can be either working or static. Explain. (in science activity notebook):</p> <p>a) The scientific principle involved b) Materials required and construction steps c) Real-life application of the concept</p> <p>For example: Chapter: Electric Current & Circuits → Activity: Conductivity Tester + Quiz Board - STEM Link: Science: Conductors/insulators Tech: Circuit basics Engg: Build working model Math: Simple circuit diagrams - Task: Build a conductivity tester with 3V cell, LED, wires. Test 10 classroom objects. Then design a quiz board where correct answers complete the circuit and light the LED. - Process: Draw circuit diagram first, then build, then test. - Competency: Design thinking, circuit logic, hands-on wiring - Extension: Code a Scratch animation of the same circuit</p> <p>For example. Chapter: Motion & Time → Activity: Paper Roller Coaster for Speed - STEM Link: Science: Speed = distance/time Tech: Stopwatch app Engg: Build stable structure Math: Calculate avg speed - Task: Build a paper roller coaster for a marble using only A4 sheets + tape. Marble must stay on track for 2+ meters. - Process: Measure track length. Time the marble 3 times. Calculate avg speed. Redesign to make it faster or slower. - Competency: Measurement, variables, iterative design - Math link: Convert cm/s to m/s</p> <p>For example. Chapter: Water → Activity: Water Filter & TDS Comparison - STEM Link: Science: Filtration, purification Tech: TDS meter app/paper Engg: Layered filter design Math: % impurity removed - Task: Build a water filter using bottle, sand, gravel, cotton, charcoal. Filter muddy water. - Process: Check clarity before/after. If school has TDS meter, calculate % change. Compare designs of 4 groups. - Competency: Environmental awareness, experimental design, data comparison - SDG Link: SDG 6 – Clean Water</p>	<ul style="list-style-type: none"> • By the end of this activity, students will be able to: • Apply scientific concepts to design and construct a functional model. • Develop problem-solving skills • By identifying challenges, testing ideas, and improving their designs through trial and error. • Enhance critical thinking skills by analysing results and drawing logical conclusions from observations. • Demonstrate collaboration and teamwork by sharing ideas, dividing tasks, and respecting diverse viewpoints. • Integrate technology and mathematics to measure, calculate, and optimize their model or project. • Improve creativity and innovation skills.
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<p>7.</p>	<p>SEA-I: Research and Report Writing</p>	<p>Topic-How do different work environments affect the lungs of workers due to dust and air pollution exposure?</p> <p>Details-Students will select 3–4 professions (e.g., mining, stone polishing, construction, traffic police) and research the type of air pollutants present in each workplace and study how long-term exposure affects the lungs. Students will also Suggest preventive measures to protect workers’ lung health.</p> <p>Research and report writing SEA activity must be done in activity notebook</p>	<p>By the end of this activity, students will be able to:</p> <ul style="list-style-type: none"> • Understand the impact of workplace air pollution on lung health. • Identify common respiratory diseases caused by dust and pollutants. • Compare health risks across different professions. • Analyse and interpret research data logically. • Suggest effective preventive measures for occupational safety.
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Annexure-1

Content Writing

CLASS NOTES	
Class: VII	Topic: Life processes in plants Chapter 10 (Notes, Question and Answers)
Subject: SCIENCE	

✚ How Do Plants Grow?

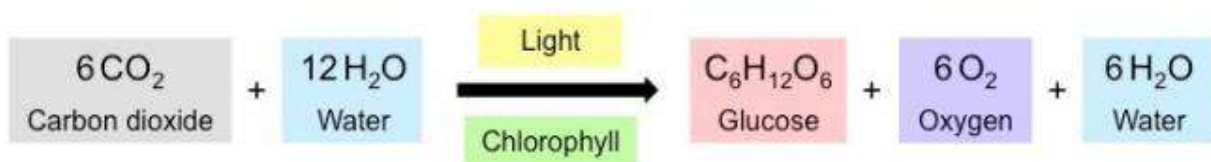
- **Essential Nutrients for Plant Growth:** Plants require carbohydrates, fats, proteins, vitamins, minerals, and water for growth.
- **Growth Indicators in Plants**
 - ✓ Emergence of new leaves and branches
 - ✓ Increase in height
 - ✓ Thickening of the stem

✚ How Do Plants Get Food for their Growth?

Plants produce their food through a process known as photosynthesis, utilizing water, carbon dioxide, sunlight, and chlorophyll.

- **Leaves: the 'Food Factories' of Plants:** Leaves are primarily responsible for producing food via photosynthesis. They store food in the form of starch,
- **Chlorophyll's Role:** Chlorophyll, a green pigment in leaves, is vital in capturing sunlight, which facilitates starch production.
- **Testing for Starch:** Decolorization experiments reveal starch presence; blue-black color after iodine test signifies starch.
- **Investigating Light Conditions:**
 - ✓ **Sunlight:** Green patches turn blue-black.
 - ✓ **Darkness:** No color change, indicating no starch.
- **Non-Green Patches:** Non-green areas lack chlorophyll and do not yield sufficient starch to change the iodine test color.
- **Pigments Beyond Chlorophyll:** Red, violet, and brown pigments exist in leaves, masking chlorophyll but some aid photosynthesis.
- **Atmospheric Role in Photosynthesis:** Carbon dioxide from the air is crucial for starch production, as demonstrated by the caustic soda experiment.
- **Requirements for Photosynthesis:** Photosynthesis essentials: sunlight, carbon dioxide, water, and chlorophyll
- **Glucose and Starch:** Photosynthesis yields glucose, an immediate energy source that converts into starch for storage.
- **Stomata:** Located on leaf surfaces, stomata play a critical role in gaseous exchange essential for photosynthesis and respiration.

Photosynthesis Overview



Transport in Plants

- **Importance of Water in Plants:** Water is essential for plant growth and is utilized in photosynthesis and aid in other vital processes of plants.
- **Role of Roots :**Roots absorb water and minerals from the soil, essential nutrients for plant growth and development
- **Xylem:** A tube-like structure within stems and leaves, is responsible for transporting water and dissolved minerals upward in a plant, aiding in nutrient transport.
- **Mineral Distribution:** Minerals dissolve in water, moving upward in the plant's stem through xylem tubes are crucial for plant development.
- **Food Transport in Plants** Food produced in leaves is distributed throughout the plant via a system of tube-like structures called phloem.
- **Role of Phloem:** Phloem has thin tube-like structures responsible for transporting food in plants. Phloem ensures that the nutrients made in leaves reach all parts of the plant, maintaining its health and growth
- **Food Storage in Plants** Transported food may also be stored in other plant parts, such as seeds and roots, for later use.

Do Plants Respire?

Plants, like all living organisms, are capable of respiration.

- **Respiration Process:** During respiration, glucose is broken down with oxygen to produce carbon dioxide, water, and energy.
- **Word Equation for Respiration:** The respiration equation is:
Glucose + Oxygen → Carbon dioxide + Water + Energy
- **Respiration in Plant Parts**
All plant parts, both green and non-green, undergo respiration. Energy from respiration aids in plant growth and development
- **Food Synthesis and Utilization:** Plants have mechanisms for synthesizing, transporting, and utilizing food for energy.

LET US ENHANCE OUR LEARNING

1. How does sunlight contribute in the production of starch in plants?

Sol. Sunlight is important for photosynthesis, the process by which plants make food. The chlorophyll present in the leaves helps in capturing sunlight. In the process of photosynthesis, plants use the absorbed sunlight, carbon dioxide, and water to make glucose. This glucose is later stored in the plant as starch.

2. Which gas from the air is essential in the process of food preparation in plants?

Sol. Carbon dioxide is essential for the process of food preparation in plants.

3. Complete the following table

S.No.	Feature	Photosynthesis	Respiration
1.	Raw materials		
2.	Products		
3.	Word equation		
4.	Importance		

S.No.	Feature	Photosynthesis	Respiration
1.	Raw materials	Sunlight, water, chlorophyll and carbon dioxide.	Glucose (from food made during photosynthesis). oxygen (from the air)
2.	Products	Glucose and oxygen (released in the air)	Carbon dioxide, water and energy (used for various activities in the plant)
3.	Word equation	Carbon dioxide + Water Chlorophyll + Oxygen	Glucose + Oxygen Carbon dioxide + Water + Energy
4.	Importance	It helps plants make their own food and produces oxygen, which is essential for life on Earth.	It provides energy to plants for growth, development, and other life processes.

4. Imagine a situation where all the organisms that carry out photosynthesis on the earth have disappeared. What would be the impact of this on living organisms?

Sol. If all organisms that carry out photosynthesis disappeared, there would be no production of oxygen and food for other living organisms. This would disrupt the food chain, as plants provide food for herbivores and oxygen for respiration. Without plants, life on Earth would not be sustained.

5. A potato slice shows the presence of starch with iodine solution. Where does the starch in potatoes come from? Where is the food synthesized in the plant, and how does it reach the potato?

Sol. The starch in potatoes comes from the glucose produced in the leaves during photosynthesis. Photosynthesis occurs in the leaves, where food is synthesized in the form of glucose. This glucose is then transported through the plant to the potato, where it is stored in the form of starch.

6. Does the broad and flat structure of leaves make plants more efficient for photosynthesis? Justify your answer.

Sol. Yes, the broad and flat structure of leaves makes plants more efficient for photosynthesis. This shape increases the surface area, allowing more sunlight to be absorbed by the chlorophyll present in the leaves. It also helps in the exchange of gases through the stomata, thus enhancing the process of photosynthesis.

7. X is broken down using Y to release carbon di oxide ,Z, energy components of the process.

$X + Y \rightarrow \text{Carbon di oxide} + Z + \text{Energy}$

X, Y, and Z are three different components of the process. What do X, Y and Z stand for?

Sol. - Glucose
Oxygen
Water

8. Krishna set-up an experiment with two potted plants of same size and placed one of them in sunlight and the other in a dark room, as shown in Fig.



(a) Sunlight (b) Complete dark
Experimental pots

- i. What idea might she be testing through this experiment?
- ii. What are the visible differences in plants in both the conditions?
- iii. According to you, leaves of which plants confirm the iodine test for the presence of starch?

Sol.

- i. Through this experiment, she is testing whether sunlight is necessary for photosynthesis in plants or not.
- ii. The plant kept in sunlight looks healthy and green as it performs photosynthesis while the plant kept in the dark room looks weak, pale, and yellowish because it cannot perform photosynthesis properly.
- iii. The leaves of the plant kept in sunlight will confirm the iodine test for starch.

9. Vani believes that 'carbon dioxide is essential for photosynthesis'. She puts an experimental set-up, as shown in Fig., to collect evidence to support or reject her idea.



(a) Sunlight with carbon dioxide



(b) Sunlight without carbon dioxide



(c) Dark with carbon dioxide



(d) Dark without carbon dioxide

A potted plant with sufficient water is placed under the prescribed conditions

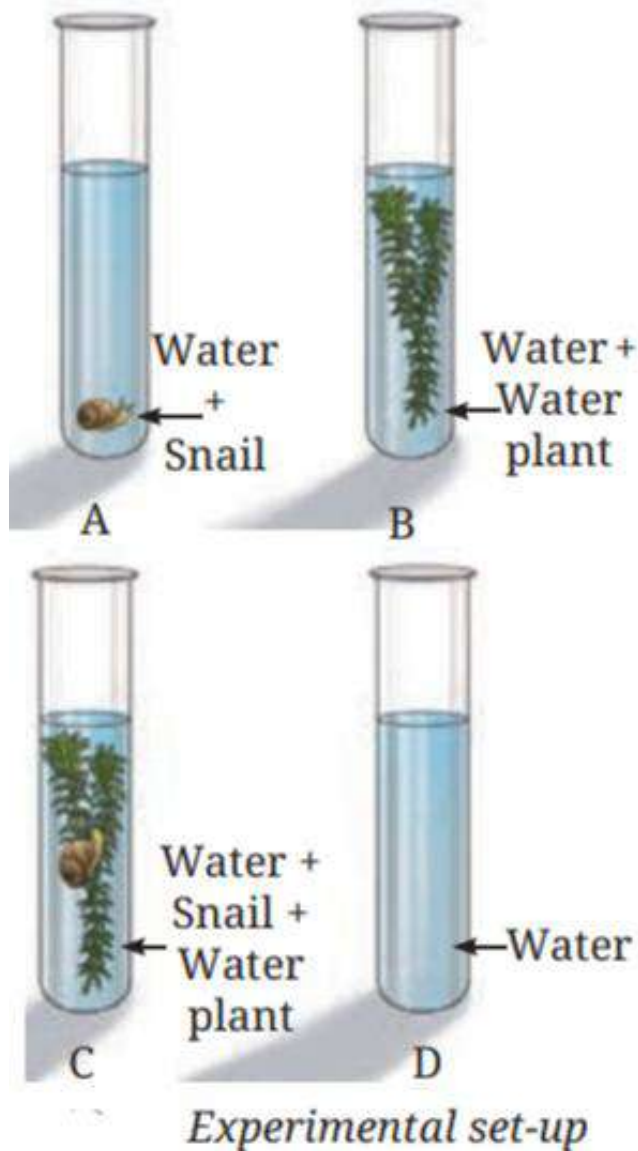
Answer the following questions-

- 1) In which plant(s) in the above set-up(s) will starch be formed?
- 2) In which plant(s) in the above set-up(s) will starch not be formed?
- 3) In which plant(s) in the above set-up(s) will oxygen be generated?
- 4) In which plant(s) in the above set-up(s) will oxygen not be generated?

- Sol.**
- 1) Only in plant kept in sunlight with carbon dioxide, starch will be formed.
 - 2) In all plants except the plant kept in sunlight with carbon dioxide.
 - 3) Oxygen will be generated in a plant kept in sunlight with carbon dioxide.
 - 4) Except for the plant kept in sunlight with carbon dioxide, oxygen will not be generated in any of the other plants.

10. Ananya took four test tubes and filled three-fourth of each test tube with water. She labelled them A, B, C, and D. In test tube A, she kept a snail; in test tube B, she kept a water plant; in test tube C, she kept both a snail and a plant. In test tube D, she kept only water. Ananya added a carbon dioxide indicator to all the test tubes. She recorded the initial colour of water and observed if there are any colour changes in the test tubes after 2-3 hours.

What do you think she wants to find out? How will she know if she is correct?



Sol. Ananya wants to find out how plants and animals affect the amount of carbon dioxide in water. She is testing the role of respiration and photosynthesis. The carbon dioxide indicator changes colour depending on how much carbon dioxide is present in the water. Ananya will know she is correct by observing the colour changes in the carbon dioxide indicator in each test tube:

- i. Test Tube A (Snail only): The indicator will turn yellow/orange, showing increased carbon dioxide due to the snail's respiration.
- ii. Test Tube B (Plant only): The indicator will turn blue/purple, showing decreased carbon dioxide because the plant uses it during photosynthesis.
- iii. Test Tube C (Snail + Plant): The colour may stay neutral or slightly blue, showing a balance as the snail gives out carbon dioxide and the plant uses it.
- iv. Test Tube D (Only water): No colour change, as there is no living organism to add or remove carbon dioxide.

11. Design an experiment to observe if water transportation in plants is quicker in warm or cold conditions.

Sol. To test whether water transportation in plants is quicker in warm or cold conditions, take two identical potted plants. Place one plant in a warm location (near a heater or sunny spot) and the other plant in a cool place (like in the shade). Add a few drops of food colouring to the water and water both plants. After a few hours, observe the movement of the coloured water up the stem and into the leaves. The plant in the warm conditions will show faster movement of the coloured water, as higher temperatures increase the rate of evaporation and water transportation.

12. Photosynthesis and respiration are essential to maintain balance in nature. Discuss.

Sol. Photosynthesis and respiration help maintain the balance of gases in nature. During photosynthesis, plants use sunlight, water, and carbon dioxide to make food and release oxygen. In respiration, plants and animals use oxygen to break down food for energy, releasing carbon dioxide. This exchange of gases keeps oxygen and carbon dioxide levels balanced, supporting life on Earth.

Competency Based Questions

1. Your younger brother accidentally swallowed a guava seed. Your grandmother says it will grow into a tree in his stomach.

- a) Using your knowledge of the digestive system, explain to your brother why a tree will not grow.
- b) What will actually happen to the seed in his digestive tract?
- c) Which part of the alimentary canal absorbs most of the water so that undigested food becomes solid?

2. Imagine you are studying a species of amphibian that starts its life breathing underwater using gills but later transitions to breathing air using lungs. How animal face this transition, and how would their respiratory system of this animal change as it matures? What challenges does this animal face.

Practice worksheet on Life processes in plants



A. Fill in the Blanks

1. Like all living cells, plant cells need oxygen to break down _____ into carbon dioxide and water.
2. The specialized cells that control the opening and closing of stomata are called _____ cells.
3. In the absence of oxygen, glucose breaks down into _____ and carbon dioxide in organisms like yeast.

B. Match the Column: Plant Transport & Energy

This set focuses on the specific tissues and gases involved in a plant's daily survival.

Column A (Structure/Process)	Column B (Function/Description)
1. Xylem Vessels	A. The "food pipe" of the plant
2. Phloem Tissue	B. Tiny pores for gas exchange on leaves
3. Stomata	C. Long tubes that carry water and minerals
4. Root Hairs	D. The chemical energy "currency" of the cell
5. ATP	E. Increase surface area for water absorption
6. Aerobic Respiration	F. Occurs when oxygen is present

C. One-Liner Questions

1. Where is the primary carbohydrate transported through the phloem?
2. What are the two main end-products of respiration in plants?
3. Why do plants respire even during the daytime when they are photosynthesizing?

D.	<p>Higher Order Thinking Skills (HOTS)</p> <p>Q1. A student noticed that a potted plant died after being submerged in a bucket of water for several days. Since plants "drink" water, why did it die?</p> <p>Q2. Why is it often advised not to sleep under a tree at night, but perfectly healthy to do so during the day?</p>
E.	<p>Curiosity Corner: "Why & How"</p> <ol style="list-style-type: none"> Why the flow in Xylem is called "unidirectional"? What would happen to a plant if its phloem was damaged by an insect? How do roots get oxygen if they are buried deep in the soil?
F.	<p>MCQs</p> <ol style="list-style-type: none"> Why do roots have a large number of root hairs? <ol style="list-style-type: none"> To help the plant stand upright To increase surface area for absorption To store excess food made by leaves To protect the root from insects Unlike animals, plants do not have a heart. What provides the 'pull' necessary to move water to the top of tall trees? <ol style="list-style-type: none"> Suction force from transpiration Gravitational pull Earth's magnetic field Photosynthesis pressure Which cells control the opening and closing of stomata on the leaf surface? <ol style="list-style-type: none"> Xylem cells Sieve tubes Guard cells Root hairs
G.	<p>Case based questions</p> <p>Case Study 1: The Overwatered Garden</p> <p>Rohan loves gardening. He decided to water his potted balsam plant every few hours to make sure it grew fast. After a week, he noticed the leaves turning yellow and the plant wilting, even though the soil was very wet. When he pulled the plant out, the roots looked mushy and dark.</p> <p>Questions:</p> <ol style="list-style-type: none"> Why did the roots become "mushy and dark" despite having plenty of water? Which gas were the root cells unable to access due to the waterlogged soil? What type of respiration did the root cells likely switch to before they died? What should Rohan do to the soil to ensure the roots can breathe properly?

Case Study 2: The "Air-Tight" Experiment

Anjali performed an experiment where she took two identical healthy green plants. She coated all the leaves of Plant A with a thin layer of Vaseline (petroleum jelly) on both the upper and lower surfaces. Plant B was left as it is. She kept both plants in sunlight and watered them regularly. After four days, Plant A began to wither.

Questions:

1. Which specific structure on the leaf surface was blocked by the Vaseline?
2. Plant A died because two major life processes were stopped. Name them.
3. Why is gas exchange necessary for a plant even when it is not photosynthesizing at night?
4. If Anjali had only coated the *upper* surface of the leaves, would the plant have withered as quickly? Why or why not?

Annexure-3



Life Processes in Animals



MCQs

1. **The movement of food in oesophagus is due to:**
 - a) Diffusion
 - b) Peristalsis
 - c) Osmosis
 - d) Absorption
2. **Which substance neutralizes stomach acid?**
 - a) Saliva
 - b) Bile
 - c) Mucus
 - d) Enzyme
3. **In which part does maximum digestion occur?**
 - a) Mouth
 - b) Stomach
 - c) Small intestine
 - d) Large intestine
4. **Villi help in:**
 - a) Digestion
 - b) Absorption
 - c) Excretion
 - d) Movement
5. **What breaks proteins among the following?**
 - a) Saliva
 - b) Gastric juice
 - c) Bile
 - d) Mucus

6. **Which structure traps dust particles?**
 - a) Alveoli
 - b) Nostrils
 - c) Diaphragm
 - d) Ribcage
7. **Exchange of gases occurs in:**
 - a) Bronchi
 - b) Alveoli
 - c) Trachea
 - d) Nose
8. **Which animal uses gills?**
 - a) Frog
 - b) Fish
 - c) Earthworm
 - d) Cow
9. **Which helps in grinding food in birds?**
 - a) Beak
 - b) Gizzard
 - c) Crop
 - d) Liver
10. **Which statement is correct?**
 - a) Breathing equal to Respiration
 - b) Respiration is physical
 - c) Breathing is chemical
 - d) Respiration releases energy

Fill in the blank

1. The conversion of starch into sugar in the mouth is brought about by enzymes present in _____.
2. The semi-liquid food formed in the stomach is called _____.
3. In the stomach, hydrochloric acid helps in killing harmful _____.
4. The process of _____ involves the passage of digested nutrients into the bloodstream.
5. The large intestine mainly absorbs _____ and some salts from undigested food.
6. In ruminants, the process of bringing back partially digested food to the mouth is called _____.
7. _____ are the tiny air sacs in the lungs where exchange of gases occurs.
8. The _____ is the muscle that plays a major role in breathing by changing the volume of the chest cavity.
9. During inhalation, the diaphragm moves _____, increasing the chest cavity volume.
10. During exhalation, a greater amount of _____ gas is released.
11. The process of breakdown of glucose using oxygen to release energy is called _____.
12. Fish cannot survive out of water because their _____ cannot function properly in air.
13. In earthworms, exchange of gases occurs through their _____, which must remain moist.
14. The liver secretes _____, which helps in digestion of fats.
15. In humans, the chest cavity expands due to the combined action of ribs and _____.

Assertion–Reason

- a) Both A and R are true, and R explains A
- b) Both A and R are true, but R does not explain A
- c) A is true, R is false
- d) A is false, R is true

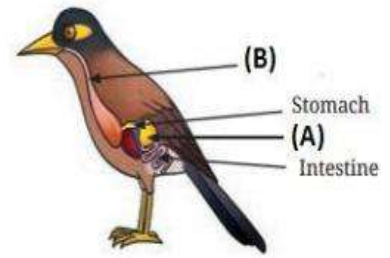
1. **Assertion (A):** Chewing food properly helps in better digestion.
Reason(R): Smaller food particles have a larger surface area for enzyme action.
2. **Assertion (A):** Protein digestion begins in the stomach.
Reason(R): The stomach provides an acidic medium required for protein-digesting enzymes.
3. **Assertion (A):** Ruminants can digest cellulose-rich food effectively.
Reason(R): They have microorganisms in their stomach that help breakdown cellulose.
4. **Assertion (A):** Breathing rate increases after physical exercise.
Reason(R): Body cells require more oxygen to release energy during increased activity.
5. **Assertion (A):** The exchange of gases in lungs occurs rapidly.
Reason(R): The respiratory surface in lungs is thin and has a large surface area.
6. **Assertion (A):** Exhaled air contains more carbon dioxide than inhaled air.
Reason(R): Carbon dioxide is produced during cellular respiration.
7. **Assertion (A):** Fast breathing does not always mean more oxygen reaches cells.
Reason(R): Efficient gas exchange depends on lung surface and blood flow.
8. **Assertion (A):** Animals living in water have different respiratory organs than land animals.
Reason(R): The availability of oxygen differs in air and water.
9. **Assertion (A):** The rate of respiration increases at high altitudes.
Reason(R): The oxygen concentration in air is lower at higher altitudes.
10. **Assertion (A):** Breathing through the nose is preferred over the mouth.
Reason(R): The nasal passage filters, warms, and moistens the incoming air.

Very Short Answer Type Questions

1. Why is it important to chew food properly before swallowing?
2. What is the role of microorganisms in the digestion of food in ruminants?
3. Why does lime water turn milky when we breathe in to it?
4. What would happen if mucus is not present in the stomach lining?
5. What is the difference between digestion and excretion?

Short Answer Type Questions

1. Aman often eats in a hurry and drinks water immediately after swallowing large bites of food. He frequently complains of indigestion. Identify **two habits** causing the problem and explain **how they affect digestion**.
2. See the image of digestive system of bird and identify the organs shown and write their functions.
3. Ruminants such as cows and buffaloes swallow their food hurriedly and then sit restfully and chew their food. Can you give the reason?
4. Differentiate between respiration and breathing. Write any three points.
5. Two aquariums were prepared for keeping fish:
 - **Aquarium A** had water that was not changed or stirred. The water remained still.
 - **Aquarium B** had water that was continuously bubbled using an air pump, so air could mix with water. After a few days, it was observed that: Fish in Aquarium A became slow and weak whereas fish in Aquarium B were active and healthy. Explain, what would be the possible reasons?

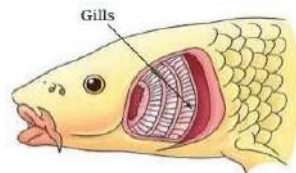


Long Answer Type Questions

1. Draw a well labeled diagram of human digestive system and label any six parts.
AND
Draw a well labeled diagram of human respiratory system and label any six parts.

Diagram Based Question

2. See the diagram given below and answer the following:



- a) What are gills?
- b) Why do fish open and close their mouths continuously while breathing?
- c) A fish is taken out of water and kept in open air. It dies after sometime. Explain why?

Case based/Experiment based question

3. A group of students performed an experiment to find out which gas is released during breathing.

They took two test tubes filled with clear lime water.

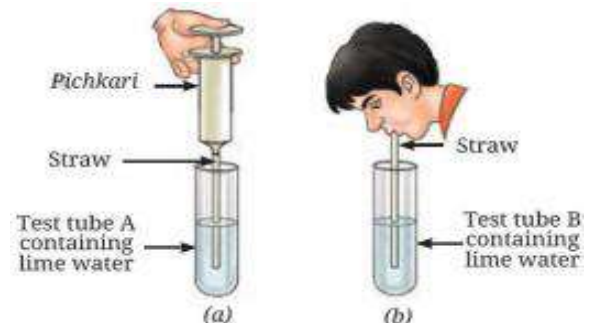
- In Test Tube A, a student blew air through a straw.
- In Test Tube B, the lime water was left undisturbed.

After a few minutes, they observed that:

- **Lime water in Test Tube A turned milky.**
- **Lime water in Test Tube B remained clear.**

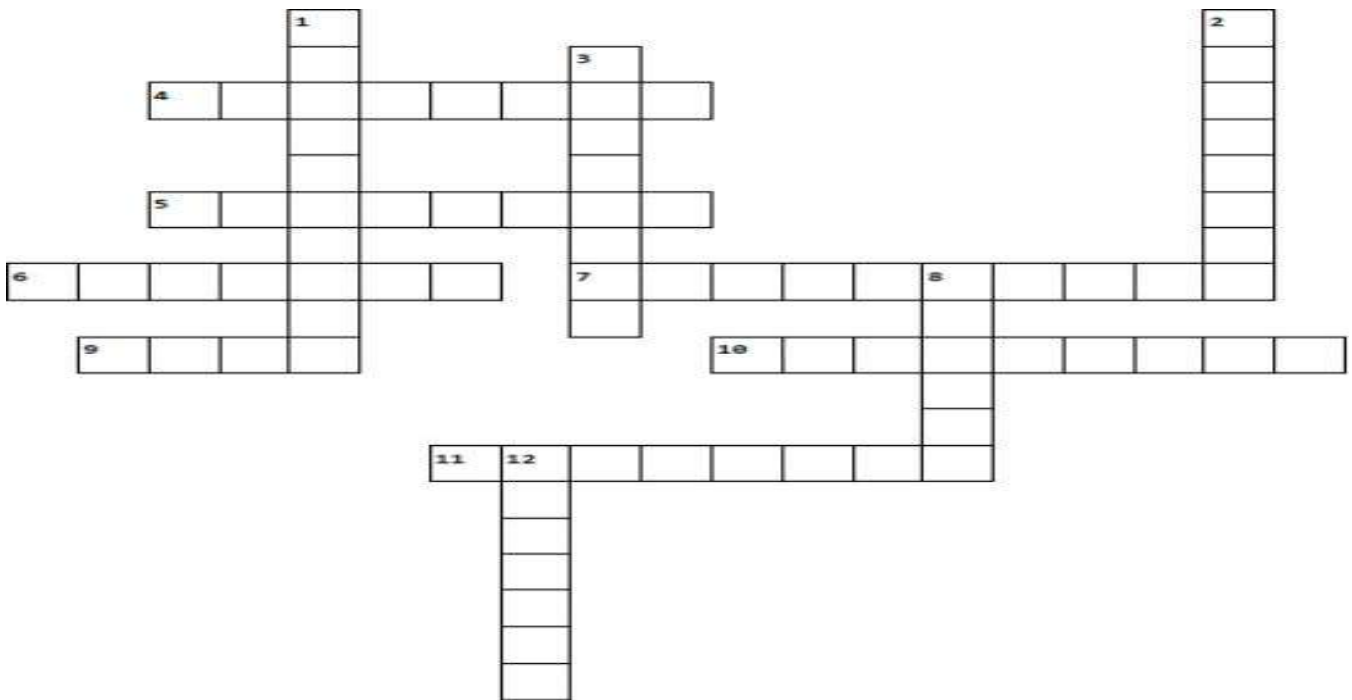
Now answer the following:

- a) What is Lime water, how is it prepared?
 - b) What can be confirmed by this experiment?
 - c) Explain, why the lime water in test tube **A** turned milky? Name the compound formed.
4. Riya noticed that her grandfather regularly practices **Pranayama** every morning. He also does light **Yoga** and goes for a short walk. He advised Riya to take deep breaths slowly and avoid shallow breathing, especially during stress. At the same time, Riya's friend Aman spends most of his time indoors, does not exercise, and often feels tired even after small activities. After a few weeks, Riya observed that her grandfather feels energetic and calm, while Aman gets tired quickly and sometimes feels breathless.



- How do practices like **Pranayama** help in improving breathing?
- Why does Aman feel tired more quickly than Riya's grandfather?
- How does regular exercise help in maintaining healthy respiratory system?
- Suggest two breathing practices that can improve lung health.

5. See the instructions given below and solve the Crossword Puzzle.



Across

- The two main branches that lead from the trachea into the lungs.
- The tube reinforced by cartilaginous rings (windpipe).
- The third compartment of the ruminant stomach, known for its many folds.
- The muscle that contracts to create a vacuum in the human chest cavity.
- The partially digested food returned from the rumen for a second chew.
- The "true stomach" of a ruminant, where acid digestion occurs.
- Microscopic sacs where oxygen enters the bloodstream.

Down

- The muscular tube connecting the mouth to the stomach.
- The throat; the common passageway for both food and air.
- Muscular bird organ that uses grit to grind seeds.
- The massive fermentation vat in ruminants like cows.
- The voice box located at the top of the respiratory tract.