



**MOUNT COLUMBUS SCHOOL
DAKSHINPURI, NEW DELHI – 62
CLASS IX**

WORKSHEET (JULY)

ENGLISH R1

I. Answer the following questions in 30–40 words each:

1. Why does the poet describe soil as the foundation of life? Explain briefly.
2. What message does the lesson Canvas of Soil convey about protecting the environment?
3. What positive changes are highlighted in the lesson, Winds of Change? How do they inspire people?

II. Fill in the blanks with the correct form of the verbs given in brackets.

1. Every morning, my brother _____ (go) for a walk before breakfast.
2. While the teacher _____ (explain) the lesson, the students listened carefully.
3. They _____ (complete) the project yesterday before the deadline.
4. We _____ (visit) the Science Museum next Sunday.
5. The birds _____ (build) their nests every spring.

III. You are Riya/Rohan, a resident of Dakshinpuri, New Delhi. The roads in your locality are full of potholes, causing traffic jams and accidents during the rainy season. Write a letter to the Editor of The Hindustan Times highlighting the problem and suggesting measures to improve the condition of the roads.

Reflect on Your Learning

Tick (✓) the option that best describes your understanding.

Statement	Confident	Need More Practice	Need Help
I can understand the ideas and message of Canvas of Soil .	☐	☐	☐
I can answer questions based on Winds of Change .	☐	☐	☐
I can write a Letter to the Editor using the correct format and appropriate language.	☐	☐	☐

HINDI R2

I. बहुविकल्पीय प्रश्न

1. 'दो बैलों की कथा' के लेखक हैं—

- (a) प्रेमचंद (b) महादेवी वर्मा (c) जयशंकर प्रसाद (d) सुमित्रानंदन पंत

2. हीरा और मोती किसके नाम हैं?

- (a) घोड़े (b) बैल (c) कुत्ते (d) ऊँट

3. झूरी का बैलों के प्रति व्यवहार कैसा था?

- (a) कठोर (b) प्रेमपूर्ण (c) उपेक्षापूर्ण (d) स्वार्थी

4. 'क्या लिखूँ' कविता में कवि किस दुविधा में है?

- (a) कहाँ जाऊँ (b) क्या लिखूँ (c) किससे मिलूँ (d) क्या पढ़ूँ

5. 'क्या लिखूँ' कविता का मुख्य भाव है—

- (a) देशभक्ति (b) आत्मचिंतन (c) हास्य (d) करुण

6. राम-लक्ष्मण-परशुराम संवाद किस ग्रंथ से लिया गया है?

- (a) महाभारत (b) रामचरितमानस (c) गीता (d) पंचतंत्र

7. परशुराम किस कारण क्रोधित हुए?

- (a) राम के वनवास पर (b) शिव धनुष टूटने पर (c) सीता स्वयंवर पर (d) जनक पर

8. लक्ष्मण का स्वभाव कैसा था?

- (a) डरपोक (b) निर्भीक (c) आलसी (d) लालची

9. 'भारति, जय, विजय करे!' कविता में 'भारति' का अर्थ है—

- (a) भारत माता (b) नदी (c) पृथ्वी (d) भाषा

10. कविता का प्रमुख भाव है—

- (a) करुण (b) देशभक्ति (c) हास्य (d) श्रृंगार

II. निम्नलिखित प्रश्नों के उत्तर लिखिए-

1. यदि हीरा और मोती बोल सकते, तो वे मनुष्यों को क्या संदेश देते?
2. यदि आप 'क्या लिखूँ' कविता के कवि होते, तो आज के समाज पर क्या लिखते?
3. राम और लक्ष्मण के स्वभाव में क्या अंतर था? उदाहरण सहित लिखिए।
4. आज के समय में 'भारति, जय, विजय करे!' कविता का क्या महत्व है?
5. राम ने परशुराम के साथ कैसा व्यवहार किया?

SANSKRIT R3

भाग – A (बहुविकल्पीय प्रश्न)

1. सही विकल्प चुनिए।

1. 'अहं' शब्द का अर्थ है—

(क) तुम (ख) मैं (ग) वह (घ) वे

2. 'मातामही' किसे कहते हैं?

(क) दादी (ख) नानी (ग) माता (घ) बहन

3. 'उपनेत्रम्' का अर्थ है—

(क) पुस्तक (ख) चश्मा (ग) घड़ी (घ) छाता

4. संस्कृत वर्णमाला में स्वर कितने होते हैं?

(क) 10 (ख) 13 (ग) 15 (घ) 20

5. 'नेत्रे' किस अंग का नाम है?

(क) कान (ख) आँख (ग) हाथ (घ) पैर

6. 'आम्रम्' किसका नाम है?

(क) केला (ख) आम (ग) सेव (घ) अमरूद

7. संस्कृत में चैत्र के बाद कौन-सा मास आता है?

(क) वैशाखः (ख) ज्येष्ठः (ग) फाल्गुनः (घ) माघः

8. 'कर्णः' का अर्थ है—

(क) नाक (ख) कान (ग) हाथ (घ) आँख

9. 'दन्ताः' किसे कहते हैं?

(क) बाल (ख) दाँत (ग) पैर (घ) जीभ

10. निम्न में से कौन-सा फल है?

(क) आम्रम् (ख) हस्तः (ग) नासिका (घ) नेत्रम्

11. 'श्रावणः' किसका नाम है?

(क) फल (ख) मास (ग) पक्षी (घ) शरीर का अंग

12. 'हस्तः' का अर्थ है—

(क) पैर (ख) हाथ (ग) सिर (घ) कान

13. 'नासिका' का अर्थ है—

(क) जीभ (ख) नाक (ग) आँख (घ) कान

14. 'कदलीफलम्' का अर्थ है—

(क) केला (ख) सेब (ग) अंगूर (घ) अनार

15. संस्कृत वर्णमाला का प्रथम स्वर है—

(क) इ (ख) अ (ग) उ (घ) आ

भाग – B (मिलान कीजिए)

स्तम्भ A

स्तम्भ B

नेत्रम्

आम

हस्तः

आँख

आम्रम्

हाथ

वैशाखः

मास

उपनेत्रम्

चश्मा

भाग – C (एक शब्द में उत्तर दीजिए) (2×10=20 अंक)

1. 'अहं' का अर्थ लिखिए।
2. शरीर के दो अंगों के नाम लिखिए।
3. दो फलों के संस्कृत नाम लिखिए।
4. वर्ष का प्रथम संस्कृत मास कौन-सा है?
5. पाँच स्वरों के नाम लिखिए।

भाग – D (चित्र आधारित प्रश्न)

दिए गए चित्रों को देखकर उनके संस्कृत नाम लिखिए—

1.  _____

2.  _____

3.  _____

4.  _____

5.  _____

MATHEMATIC

1. Find the value of the following:

i) $(x + 5)^2$

ii) $(8a + 2b - c)^2 - 4a(b - c)$

iii) $(7x)^3 + (5y)^3$

iv) $(\frac{1}{6} - 9t)^3 - \frac{2}{7}t - 5$

2. The product $(8x + y)(8x - y)$ is:

3. Simplify:

i) $(3x + y)(3x - y) + (7y - 2)^2$

ii) $(8a^3 - b^2)^3$

iii) $(6p + 4q)^3$

iv) $(7t + 2s)^2 + (\frac{8}{5} - t)^3$

v) $(6x - 7y + 4z)^2 - (x - 5y)^2$

4. Expand and simplify: $(2x + 5)^2 - (2x - 5)^2$

5. A square garden has side $(x + 4)$ metres. Write the expression for its area.

6 A cube has an edge of $(x + 3)$ cm. Write an algebraic expression for its volume using the cube identity.

7. The side of a cube is $(2a - 1)$ cm. Expand its volume using the appropriate algebraic identity

8. Without direct multiplication, evaluate: 99^3 using a suitable algebraic identity.

9. Show that $(x + y)^3 + (x - y)^3 = 2x^3 + 6xy^2$

10. If $(a + b)^3 = 216$ and $a + b = 6$, verify whether the identity is satisfied.

11. Find at least four solutions and plot the graph of $2x + y = 4$.

12. The sum of two numbers is 20. Let the numbers be x and y . Write the linear equation.

13. A farmer has 40 animals consisting of cows and goats. Let the number of cows be x and goats be y .

Form a linear equation and find any three possible solutions.

14. Write a linear equation whose graph passes through the points $(0, 4)$ and $(4, 0)$.

15. Check whether the point $(3, 2)$ satisfies $2x - y = 4$.

SCIENCE

1. A force of 25 N moves an object through 8 m in the direction of the force. Calculate the work done.
2. Calculate the kinetic energy of a 4 kg object moving at 6 m/s.
3. Find the potential energy of a 10 kg object raised to a height of 5 m. (*Take $g = 10 \text{ m/s}^2$*)
4. A machine lifts a 600 N load using an effort of 150 N. Calculate the mechanical advantage.
5. A worker uses a wheelbarrow to carry bricks from one place to another. The wheelbarrow helps him carry a heavy load with less effort.

Answer the following:

- a. Which simple machine is used in a wheelbarrow?
 - b. What class of lever is a wheelbarrow?
 - c. Why are simple machines useful?
 - d. Name any two other simple machines.
6. Why is climbing a staircase slowly easier than running up the same staircase, even though the work done is the same?
7. a. Which tissue is responsible for the growth in length of a plant?
- b. Name the tissue that transports water in plants.
 - c. Name the tissue that transports food in plants.
 - d. Which permanent tissue stores food in plants?
 - e. Which animal tissue connects muscles to bones?
8. Draw and label a neuron.
9. A gardener notices that the stem of a young plant bends easily in the wind but does not break. As the plant grows older, the stem becomes harder and stronger.

Answer the following questions:

- a. Which tissue provides flexibility in the young stem?
 - b. Which tissue provides strength in the older stem?
 - c. Are the cells of sclerenchyma living or dead?
 - d. State one function of collenchyma.
10. Why can skeletal muscles become tired, while cardiac muscles continue to work throughout life?

SOCIAL SCIENCE

1. Choose the correct answer.

- The earliest humans mainly depended upon:
 - Agriculture
 - Hunting and gathering
 - Trade
 - Animal husbandry
- Which Stone Age period witnessed the beginning of agriculture?
 - Palaeolithic
 - Mesolithic
 - Neolithic
 - Iron Age
- Which dynasty was famous for its powerful navy?
 - Gupta
 - Chola
 - Kushan
 - Maurya
- The founder of the Mughal Empire was:
 - Akbar
 - Babur
 - Humayun
 - Shah Jahan
- The Bhakti Movement mainly emphasized:
 - Military expansion
 - Equality and devotion
 - Trade
 - Tax collection

2. Assertion and Reason - 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: The Neolithic Age is called the Agricultural Revolution.
Reason: People began cultivating crops and domesticating animals.
2. Assertion: The Cholas became a powerful empire in South India.
Reason: They developed a strong navy and promoted overseas trade.
3. Assertion: Akbar is remembered as a tolerant ruler.
Reason: He encouraged discussions among people of different religions.
4. Assertion: The Bhakti Movement reduced social discrimination.
Reason: Bhakti saints emphasized equality before God.
5. Assertion: Stone tools were first used during the Stone Age.
Reason: Early humans had not yet discovered iron.

3. Case Study

I– Read the passage carefully and answer the questions.

Early humans depended on hunting animals and gathering fruits, roots, and nuts. Gradually, they learned to control fire, which helped them cook food, protect themselves from wild animals, and keep warm. During the Neolithic Age, people started farming, domesticated animals, and built permanent settlements near rivers.

1. What was the main occupation of early humans during the Palaeolithic Age?
a) Farming b) Hunting and gathering c) Trade d) Weaving
2. Which discovery helped early humans cook food and protect themselves?
a) Wheel b) Fire c) Iron d) Writing
3. Why did Neolithic people settle near rivers?
4. State any two changes that took place during the Neolithic Age.

II - Read the passage carefully and answer the questions.

The Cholas established one of the strongest kingdoms in South India. They built a powerful navy, encouraged overseas trade with Southeast Asia, and constructed magnificent temples. Village assemblies looked after local administration and public welfare.

1. Which feature made the Cholas a major maritime power?
a) Strong cavalry b) Powerful navy c) Large deserts d) Silk production
2. The Brihadeshwara Temple was built by:
a) Rajendra I b) Rajaraja I c) Harsha d) Akbar
3. Mention one function of the village assemblies during the Chola period.
4. How did the Cholas strengthen trade with other countries?

III - Read the passage carefully and answer the questions.

Akbar believed that an empire could become stronger if people of different religions lived peacefully. He abolished the Jizya tax, encouraged discussions among scholars of different faiths, and introduced the policy of Sulh-i-Kul (Universal Peace). During the same period, the Bhakti and Sufi movements spread the message of love, equality, and devotion.

1. Which Mughal emperor introduced the policy of Sulh-i-Kul?
a) Babur b) Humayun c) Akbar d) Aurangzeb
2. The Bhakti and Sufi movements mainly promoted:
a) Expansion of kingdoms b) Equality and religious harmony c) Collection of taxes d) Military reforms
3. Why did Akbar abolish the Jizya tax?
4. Explain one similarity between the Bhakti and Sufi movements.

4. Competency-Based Questions

1. An archaeologist discovers polished stone tools, pottery, and remains of wheat and barley at an excavation site. Which Stone Age period do these findings belong to? Give one reason for your answer.
2. A historian says that the Chola Empire became powerful not only because of its army but also because of its administration. Justify the statement with any two points.
3. Imagine you were a ruler during medieval India. Mention two measures you would adopt to promote religious harmony among your subjects.

INFORMATION TECHNOLOGY

Section A: Multiple Choice Questions

Choose the correct option and write it in the space provided.

1. Which of the following is NOT a part of ergonomic practices?
 - a) Maintaining a correct posture
 - b) Sitting with bent back
 - c) Using proper lighting
 - d) Taking regular breaks
2. Which method is used for typing without looking at the keyboard?
 - a) Manual method
 - b) Sight typing
 - c) Touch typing
 - d) Eye typing
3. What is the ideal sitting posture while typing?
 - a) Slouched back
 - b) Legs crossed
 - c) Straight back and both feet flat on the floor
 - d) Standing upright
4. What does WPM stand for in typing speed?
 - a) Words per Minute
 - b) Windows per Minute
 - c) Work per Method
 - d) WordPress Management
5. Which finger is used to press the Spacebar?
 - a) Index finger
 - b) Thumb
 - c) Ring finger
 - d) Middle finger

Section B: Very Short Answer Questions

Answer the following in 1–2 sentences.

1. What is touch typing?
2. Name any two typing tutor software.
3. Why is ergonomic sitting posture important?
4. What is the ideal position of the monitor while typing?
5. List any two guidelines for good keyboarding habits.

ARTIFICIAL INTELLIGENCE

Section A: Multiple Choice Questions (MCQs)

1. What is data literacy?
 - a) Ability to read books
 - b) Ability to understand, analyze, and use data effectively
 - c) Ability to code programs only
 - d) Ability to store files
2. Which of the following is an example of qualitative data?
 - a) Height of students
 - b) Marks scored
 - c) Colors of cars
 - d) Number of books
3. Which type of data is numerical?
 - a) Names
 - b) Addresses
 - c) Age
 - d) Opinions
4. What is the first step in working with data?
 - a) Data visualization
 - b) Data collection
 - c) Data deletion
 - d) Data sharing
5. Which of the following best represents data in visual form?
 - a) Paragraph
 - b) Chart
 - c) Sentence
 - d) Code
6. What does “data cleaning” involve?
 - a) Washing computers
 - b) Removing errors and irrelevant data
 - c) Deleting all data
 - d) Storing data
7. Which graph is best for comparing categories?
 - a) Pie chart
 - b) Bar graph
 - c) Line graph
 - d) Scatter plot
8. What is a dataset?
 - a) A single value
 - b) A collection of related data
 - c) A type of software
 - d) A device
9. Why is data important in AI?
 - a) It replaces humans
 - b) It helps AI systems learn and make decisions
 - c) It increases electricity usage
 - d) It reduces storage
10. What is a possible risk of poor data quality?
 - a) Faster results
 - b) Accurate predictions
 - c) Misleading conclusions
 - d) Better performance

Section B: Short Answer Questions

1. Define data literacy in your own words.
2. Differentiate between qualitative and quantitative data with one example each.
3. Why is data cleaning an important step?
4. Name any two types of data visualizations and their uses.
5. How does data help in decision-making in real life? (Give one example)