

LUTHRA ACADEMY HIGH SCHOOL

GANDHINAGAR

SUMMER HOLIDAY HOMEWORK

Class 8th Standard

Academic Session: 2026-27

Class: 8th Standard

GUIDELINES:

- The student should maintain a separate notebook for summer holiday work.
- Students are advised to include yoga, exercise, and prayers in their daily routine to stay physically fit and mentally peaceful.

MATHEMATICS

1. UNDERSTANDING QUADRILATERALS

1. Define a quadrilateral. Draw and label a concave and a convex quadrilateral.
2. State the angle sum property of a quadrilateral. If three angles of a quadrilateral are 75° , 90° , and 75° , find the fourth angle.
3. Find the number of sides of a regular polygon whose each exterior angle has a measure of 45° .
4. Write down the key properties of a Parallelogram, a Rhombus, and a Square regarding their sides, angles, and diagonals.

2. MENSURATION (FORMULAS & CONCEPTS ONLY)

Concept 1: Area of 2D Shapes

- **Square:** Area = side $\times$ side
- **Rectangle:** Area = length $\times$ breadth
- **Triangle:** Area = $\frac{1}{2} \times$ base $\times$ height
- **Parallelogram:** Area = base $\times$ height
- **Circle:** Area = πr^2
- **Trapezium:** Area = $\frac{1}{2} \times$ (sum of parallel sides) $\times$ height

Concept 2: Surface Area & Volume of 3D Shapes

- **Cube:** Total Surface Area = $6a^2$ | Volume = a^3
- **Cuboid:** Total Surface Area = $2(lb + bh + hl)$ | Volume = $l \times b \times h$
- **Right Circular Cylinder:** Curved Surface Area = $2\pi rh$ | Total Surface Area = $2\pi r(r + h)$ | Volume = $\pi r^2 h$

Task: Copy down these standard formulas neatly into your holiday notebook and memorize them.

SCIENCE

1. CONSERVATION OF PLANTS AND ANIMALS

1. Define the terms: Deforestation, Biodiversity, Biosphere Reserve, and Endemic Species.
2. What is the difference between a Wildlife Sanctuary and a National Park?
3. Why are the Red Data Book and migration patterns important for wildlife conservation?

2. REPRODUCTION IN ANIMALS

1. Differentiate clearly between Sexual and Asexual reproduction modes.
2. Explain the terms Internal Fertilization and External Fertilization with two examples for each.
3. Define metamorphosis. Describe the life cycle stages of a frog or a silkworm with a simple sketched diagram.

HINDI (हिंदी)

1. पाठों पर आधारित प्रश्न

1. **अपराजिता:** लेखिका ने डॉ. चन्द्रा को 'अपराजिता' क्यों कहा है? उनके जीवन से हमें क्या प्रेरणा मिलती है?
2. **दीवानों की हस्ती:** 'दीवानों की हस्ती' कविता में कवि के बेफ़िक्री और मस्तमौला स्वभाव का वर्णन अपने शब्दों में कीजिए।
3. **चिट्ठियों की अनूठी दुनिया:** पत्रों का हमारे जीवन में क्या महत्व है? आधुनिक संचार के साधनों (जैसे SMS, ईमेल) और पारंपरिक पत्रों में अंतर स्पष्ट कीजिए।

2. हिंदी व्याकरण अभ्यास

1. **मुहावरे (11 से 20):** अपनी कक्षा-पुस्तिका (Classwork notebook) में से मुहावरे संख्या 11 से 20 तक उनके अर्थ सहित लिखिए और प्रत्येक का वाक्य में प्रयोग कीजिए।
2. **विलोम शब्द (11 से 20):** अपनी व्याकरण तालिका में से विलोम शब्द संख्या 11 से 20 तक अपनी कॉपी में साफ-साफ लिखिए।
3. **पर्यायवाची शब्द (20 से 30):** शब्द संख्या 20 से 30 तक के सभी पर्यायवाची शब्द (प्रति शब्द कम से कम दो अर्थ) याद करके लिखिए।
4. **लिंग बदलो (11 से 20):** अपनी व्याकरण पुस्तक से लिंग बदलो संख्या 11 से 20 तक पूरा करें।
5. **वचन बदलो (11 से 20):** शब्द संख्या 11 से 20 तक के वचन बदलें रूप लिखें।
6. **प्रार्थना पत्र:** कक्षा कार्य (Classwork) में करवाए गए औपचारिक/अनौपचारिक प्रार्थना पत्र का दो बार लिखकर अभ्यास करें।

3. निबंध लेखन (शब्द सीमा: 100-150 शब्द)

नीचे दिए गए दोनों विषयों पर सुंदर और सरल भाषा में निबंध लिखिए:

- वृक्ष लगाएं, प्रदूषण मिटाएं
- मेरा प्रिय अध्यापक

ENGLISH

LITERATURE FOCUS

1. **How Teachers Learn:** Summarize the central idea of the text. What lessons can students learn from the adaptability of teachers?
2. **Polo - The King of Games:** Why is Polo known as the 'King of Games'? Mention the historical region where this game is played with traditional fervor.
3. **A Nation's Strength:** According to the poet, what is the real gold or power that makes a nation strong and great?
4. **Porus and his Elephant:** Narrate the touching story of faithfulness and bravery shown by the elephant toward King Porus during the battle.
5. **Mercy:** What qualities of mercy are described by the poet? Why is it considered mightier than the king's crown?

GRAMMAR & WRITING SKILLS

1. **Applied Grammar:** Practice worksheets covering Modals (can, may, must, should) and Narration conversions from direct to indirect frames.
2. **Basic Composition Portfolio:** Complete the following writing frames beautifully in your notebook:
 - **Notice Writing:** Draft a short notice (under 50 words) informing students about a campus cleanliness drive after vacations.
 - **Article Writing:** Write a brief article (80–100 words) on: *"The Importance of Trees in Keeping Our Air Clean."*
 - **Letter & Application Writing:** Write an application to your Principal requesting two days of sick leave, or write a letter to your friend inviting them to spend the summer break with you.
 - **Unseen Passage Practice:** Read a short story, note down 5 vocabulary words with meanings, and record its summary points.
 - **Simple Essay Portfolio:** Write a short, basic essay (100-120 words) on: *My Daily Routine in Summer Holidays, Value of Health and Exercise, or My Favorite Pet Animal.*

SOCIAL SCIENCE

1. HISTORY: THE OUTBREAK OF THE REVOLUTION

1. What were the primary social and financial causes that led to the sudden outbreak of the French Revolution?
2. Explain the role played by the common people and the Estates-General during the historic revolution timeline.

2. CIVICS: UNDERSTANDING SECULARISM

1. What is secularism? Why is the separation of religion from the state essential for a democratic country like India?
2. Mention any two ways through which the Indian Constitution protects religious freedom for all citizens.

3. GEOGRAPHY: RESOURCES MANAGEMENT

1. What are the key factors responsible for soil formation? Mention any two standard methods used for soil conservation.
2. Why is water conservation becoming vital across globe regions? State two basic ways to conserve fresh water.
3. Define an ecosystem. Why are wild animals and natural vegetation considered crucial resources for maintaining environmental balance?

A MESSAGE FOR THE SUMMER BREAK / ग्रीष्मकालीन अवकाश संदेश

"Learning is a beautiful journey, but a healthy body and a calm mind are the vessels that carry us through it. Use these holidays not just to feed your mind with books, but to enrich your life with health, gratitude, and joy."

"शिक्षा एक सुंदर यात्रा है, लेकिन एक स्वस्थ शरीर और शांत मन वह माध्यम हैं जो हमें इसमें आगे ले जाते हैं। इन छुट्टियों का उपयोग केवल किताबों से ज्ञान प्राप्त करने के लिए ही नहीं, बल्कि अपने जीवन को स्वास्थ्य, कृतज्ञता और आनंद से समृद्ध करने के लिए भी करें।"

Stay safe, rest well, and enjoy your summer break to the fullest!

सुरक्षित रहें, स्वस्थ रहें और अपनी छुट्टियों का पूरा आनंद लें!