

SOCIAL SCIENCE_– CONSTITUTION_LITERACY

CLASS -7TH

TOPIC: UNDERSTANDING OUR CONSTITUTION AND PREAMBLE

TASK: Research work on understanding the key terminologies of our PREAMBLE –
SOVEREIGN, SOCIALIST, SECULAR, DEMOCRATIC, REPUBLIC.

To Be Done In: Constitution Literacy notebook (2-3 sheets)

Instructions:

The students will talk to the people close to them –parents, grandparents, and siblings- about our Constitution's key values and write down their findings in their notebooks.

The students are also expected to learn the Preamble.

Reference: Chapter Constitution of India (NCERT CLASS 7th)

ग्रीष्मकालीन अन्तर्विषयीय परियोजना कार्य

कक्षा – 7

विषय – हिन्दी

परियोजना कार्य शीर्षक- नाप तौल की यात्रा

(शोध कार्य)

1. मुखपृष्ठ

- विषय, नाम, कक्षा, रोल नंबर और स्कूल का नाम लिखें।

2. परिचय

- मापन क्यों जरूरी है, 2-3 पंक्तियों में समझाएं।

3. प्राचीन मापन

- अंगुल, हाथ, गज, सेर आदि के नाम लिखें।
- एक छोटा चित्र बनाएं।

4. आधुनिक मापन

- मीटर, किलोग्राम, सेकंड जैसी SI इकाइयाँ लिखें।

5. मापन उपकरण

- लंबाई: रूलर
- भार: तराजू
- समय: घड़ी
- तापमान: थर्मामीटर
(चित्र या तस्वीरें चिपकाएं)

6. दैनिक जीवन में उपयोग

- जैसे: सब्जी तौलना, कपड़े नापना, खाना बनाना आदि।

7. निष्कर्ष

- मापन से जीवन आसान और सटीक होता है।

हिन्दी परियोजना कार्य के निर्देश

1. छात्र परियोजना कार्य पंच पेपर पर करेंगे।
2. प्रथम पृष्ठ पर हिन्दी परियोजना का विषय, छात्र का नाम, कक्षा, वर्ग तथा विद्यालय का नाम स्पष्ट रूप से लिखा जाए।
3. परियोजना को विषय से संबंधित चित्रों से सजाएँ, ताकि वह अधिक आकर्षक और प्रभावशाली लगे।

Holiday Homework – Class 7

RESEARCH BASED:

Topic: *Earth, Moon, and Sun – Through the Lens of Indian Knowledge System*

Objective:

To understand the relationships and movements of the Earth, Moon, and Sun, and explore how ancient Indian astronomers studied and explained celestial phenomena.

Introduction

The Earth, Moon, and Sun form a cosmic trio that governs day and night, seasons, tides, and eclipses. Ancient Indian scientists like **Aryabhata**, **Bhaskaracharya**, and others had a deep understanding of astronomy. Their observations about the Earth's rotation, solar and lunar eclipses, and phases of the Moon were remarkably advanced for their time.

Research Task (To be written in 1–2 pages)

1. Who was Aryabhata and what did he say about the rotation of the Earth?
2. How did ancient Indians calculate time and seasons using the Sun and Moon?
3. What are some Indian festivals that are based on the Moon or the Sun?
4. What is a Panchang and how does it help in predicting eclipses and moon phases?
5. What were the contributions of Bhaskaracharya in understanding eclipses and planetary motion?
6. How is the Indian calendar different from the Western (Gregorian) calendar?
7. What is the significance of the Sun and Moon in Indian scriptures or mythology?

Project Questions (To be answered in Punch sheets)

1. What causes day and night on Earth?
2. What causes the different seasons?
3. Why do we always see the same side of the Moon from Earth?
4. What is a solar eclipse? How did ancient Indians explain it?
5. What is a lunar eclipse? How is it different from a solar eclipse?
6. Name the different phases of the Moon.
7. What is the position of the Sun, Earth, and Moon during a full moon and new moon?
8. How did ancient Indian astronomers study the movement of stars and planets?
9. What instruments did they use for their observations?
10. What is the significance of the Sun in Vedic literature and Indian mythology?
11. What role does the Moon play in Indian farming and calendar systems?
12. Why do Indian festivals not fall on the same date every year?

Creative Work

- Make a **model or chart** showing the Sun, Earth, and Moon system (with day-night or eclipse explanation).
- Create a **drawing** showing the changing phases of the Moon.
- Decorate your work with symbols or quotes from Indian scriptures eg *Rigveda*

Interdisciplinary Approach

- **Science:** Earth, Moon, and Sun concepts
- **Social Studies:** Ancient Indian astronomers
- **Art:** Diagrams, Models, Flipbook
- **Value Education:** Respecting the wisdom of ancient knowledge and linking it to modern understanding

CROSS-CURRICULAR HOLIDAY HOMEWORK (2025-26)
ENGLISH

CLASS 7

(Integrated with Science and Mathematics)

Topic: A Bridge To The Past

Task: Dialogue writing - COMIC STRIP

To Be Done On 3 Punch Sheets

A. “Make a comic strip on a conversation between Aryabhata (the ancient Mathematician & Astronomer) and a modern scientist.”

1. Define the Characters

- **Aryabhata (A):** Ancient Indian mathematician and astronomer (born 476 CE). Wise, philosophical, and speaks with elegance. Uses analogies from nature, astronomy, and poetry.
- **Modern Scientist (M):** Present-day space scientist or physicist. Logical, respectful, and speaks clearly, often referencing scientific advancements and technology.

2. Choose a Creative Setting - Create a setting where both characters can meet, such as:

- A celestial observatory where time periods blend
- A dream or vision
- A virtual reality lab or time-travel scenario

3. Structure the Dialogue around Three Main Themes

A. Stars

- Aryabhat shares his understanding of celestial motion (e.g., Earth's rotation causes star movement).
- The scientist explains modern astronomy: galaxies, telescopes, black holes, etc.
- Highlight their shared curiosity about the universe.

B. The Concept of Zero

- Aryabhat discusses his contribution to the place value system and early ideas of zero.
- The scientist explains how zero became essential for binary code, programming, and mathematics.
- They reflect on how a simple symbol changed the world.

C. Space Travel

- Aryabhat imagines traveling among planets based on myths and calculations.
- The scientist describes rockets, moon landings, Mars rovers, and the ISS.
- Discuss future dreams like interstellar travel and space colonization.

4. Use Natural, Respectful Tone

- Both characters should admire each other's knowledge.

- Keep the tone polite, curious and warm.
- Let them ask each other thoughtful questions.

5. Include Some Emotions and Wonder

- Let Aryabhata marvel at modern inventions.
- Let the scientist express amazement at Aryabhata’s ancient wisdom and vision.

6. Keep the Dialogue Format Clear

Example:

Aryabhata: The stars dance across the sky, yet I have seen—they do not move. It is we who spin.

Scientist: Incredible, Aryabhata! That’s exactly how we understand it today—Earth’s rotation explains the motion of stars.

B. READING: Read chapters 1 to 14 of the novel, ‘David Copperfield.’

Class VII
Mathematics Holiday Homework (2025-26)

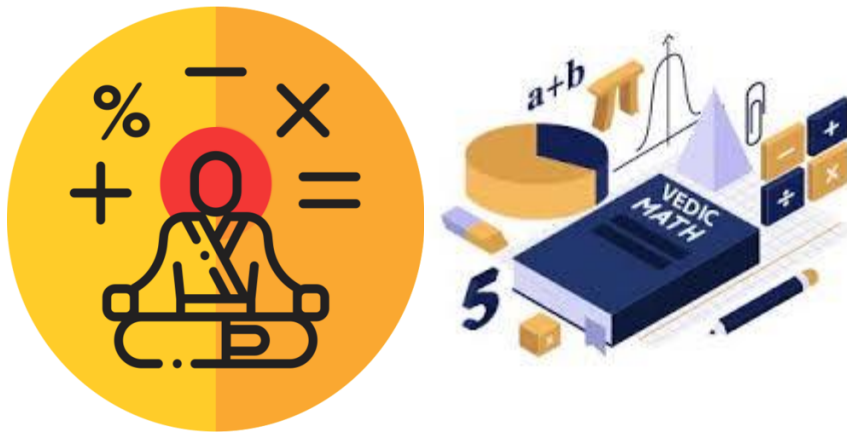
GENERAL INSTRUCTIONS:

- This Homework is divided in three parts
- Section A: Research work (Vedic Math)
- Section B: The Magic of Symmetry- Fold, Cut and Multiply!
- Section C: Application Based Questions (Worksheet)

SECTION A

Ancient Math, Modern Minds!

Vedic Maths Exploration: Discover the Ancient Secrets!



This summer break, dive into the fascinating world of *Vedic Mathematics*! This is your chance to uncover how mathematics was done in ancient India and learn brilliant calculation tricks that can make your daily math work quicker and more exciting.

Learning Objectives:

- Discover the origin and significance of Vedic Mathematics.
- Learn and apply mental math tricks rooted in ancient techniques.
- Develop fluency and speed in solving day-to-day math problems.
- Encourage self-learning, research, and creative presentation of ideas.

Instructions:

1. **Understand Vedic Maths:**
 - a) What is it?
 - b) How and when was it discovered?
 - c) Who introduced it to the modern world?
2. **Explore & Learn Tricks:**

Find **5 to 10 Vedic Maths tricks** that help with:

 - Fast addition and subtraction

- Quick multiplication and division
 - Any trick that helps with your day-to-day math
3. **Create & Present:**
- Show how these tricks can be used to solve regular math problems.
 - Create a presentation on punch sheets (3-4 Pages with cover page) or PPT to demonstrate your learning.

Rubrics:

- **Understanding of Vedic Maths:** Clarity and depth of concept.
- **Application of Tricks:** Demonstration of real-life usefulness.
- **Creativity in Presentation:** Use of visuals, examples, and innovation.
- **Accuracy & Effort:** Correct use of tricks and neatness of work.
- **Communication:** Ability to explain tricks in simple terms.

SECTION B

B) Creative Work:

Create the dolls using Magic of Symmetry with different coloured paper in reference to the following video.

https://youtu.be/gKQiEgDKbo?si=KAYv_T2AH4dW_L7-

SECTION C

I. Do the following questions in the Math practice copy:

Week 1

1. Anna is a microbiology student. She was doing research on optimum temperature for the survival of different strains of bacteria. Studies showed that bacteria X need optimum temperature of -31°C while bacteria Y need optimum temperature of -56°C . What is the temperature difference?
2. Simplify the following:
 - a. $45 - [38 - \{ 60 \div 3 - (6 - 9 \div 3) \div 3 \}]$
 - b. $63 - (-3)\{-2 - \overline{8 - 3}\} \div 3\{5 + (-2)(-1)\}$
 - c. $[29 - (-2)\{6 - (7 - 3)\}] \div [3 \times \{5 + (-3) \times (-2)\}]$
 - d. $36 - [18 - \{ 14 - (15 - 4 \div 2 \times 2) \}]$
3. The given table shows the freezing points in $^{\circ}\text{F}$ of different gases at sea level. Convert each of these into $^{\circ}\text{C}$ to the nearest integral value using the relation and complete the table: $C = \frac{5}{9} [F - 32]$

Gas	Freezing point at sea level ($^{\circ}\text{F}$)	Freezing point at sea level ($^{\circ}\text{C}$)
Hydrogen	-435	
Krypton	-251	
Oxygen	-369	

4. A fruit merchant earns a profit of Rs. 6 per bag of oranges sold and a loss of Rs. 4 per bag of grapes sold. She sells 1800 bags of orange and 2500 bags of grapes. What is the overall profit or loss?
5. There are 50 questions in a competitive exam. 2 marks are awarded for each correct answer, while 2 marks are deducted for each incorrect answer. Robin answered 32 questions correctly. If she attempts all the questions, how many marks did she score in the exam?

Week 2

6. An elevator is on the twentieth floor. It goes down 11 floors and then up 5 floors. What floor is the elevator on now?
7. A deep-sea exploring ship is pulling up a diver at the rate of 25 feet per minute. The diver is 200 feet below sea level. How deep was the diver 10 minutes ago?
8. Out of a class of 150, one-third opted for Sanskrit, two-fifth for Urdu and rest for French. Find how many opted for French?
9. Rachel spends $\frac{1}{4}$ of her pocket money on chocolates, $\frac{1}{8}$ on pizza. At the end she had \$ 40 left. How much did she have at the beginning?
10. The product of two numbers is $20\frac{5}{7}$. If one of these numbers is $6\frac{2}{3}$ find the other.

Week 3

11. Simplify:

- a. $2\frac{3}{4} - [3\frac{1}{8} \div \{5 - (4\frac{2}{3} - \frac{11}{12})\}]$
- b. $12\frac{1}{2} - [8\frac{1}{2} + \{9 - (5 - 3 - 2)\}]$

12. A man spends $\frac{2}{5}$ of his salary on food and $\frac{3}{10}$ on house rent, electricity, etc. What fraction of his salary is still left with him?
13. There are two containers out of which one can hold $3\frac{1}{2}$ litres of oil while the other can hold $2\frac{2}{3}$ litres of oil. Suppose there are 4 containers of the first type and 9 containers of the second type. The volume of oil required to fill both the containers is litres.
14. At the dealership where Mary works, she fulfilled $\frac{1}{6}$ of her quarterly sales goal in January and another $\frac{3}{10}$ of her sales goal in February. If her quarterly sales goal is \$12,000, what number of sales did she make in January and February?

Week 4

15. Subtract:

- a) -287 from -173
- b) The sum of 12 and -13 from -7

16. A car covers a distance of 89.1 km 2.2 hours. What is the average distance travelled in 30 minutes?

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कक्षा – 7

विषय – हिन्दी

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