



CLASS IX SUMMER VACATION HOMEWORK

SESSION 2026-27

THEME

Integrated Learning Through Subjects

SUBJECTS INCLUDED



MATHEMATICS

Logical thinking
& problem
solving



SCIENCE

Discovery &
innovation



SOCIAL SCIENCE

Understanding
society &
history



ENGLISH

Communication
& creativity



**HINDI /
SANSKRIT**

Language &
culture



AI / IT

Future
skills



“ *Dream big, stay curious,
keep learning, and make it happen.* ”

OBJECTIVE

To enhance creativity, critical thinking, and practical
knowledge through fun and meaningful holiday assignments.



LEARN • EXPLORE • GROW • ACHIEVE

ENGLISH

1. Do the Worksheets 1 and 2 in English Registers.
2. Do Worksheet 3 in your Practise Worksheet Book.
3. Do the Project work in a separate file?
4. Revise the syllabus, done till date.

GRAMMAR: Worksheet 01

Q1) Identify the error in the given sentence and supply the correction:

- a) The pleasure in being outdoors is fundamental to human happiness.

ERROR	CORRECTION

- b) The candidate presented himself proudly before the interview board and stated that he had been working with the core team since five years.

ERROR	CORRECTION

- c) When she returned to her flat, she saw at once that the burglars broke in her absence.

ERROR	CORRECTION

- d) The evil of begging is very common into our society.

ERROR	CORRECTION

- e) Massive discount is offered to all senior citizen vaccinated with the precautionary dose.

ERROR	CORRECTION

- f) Electricity is express by the amount of charge flowing through a particular area in unit.

ERROR	CORRECTION

- g) There can be no place which you won't find a beggar.

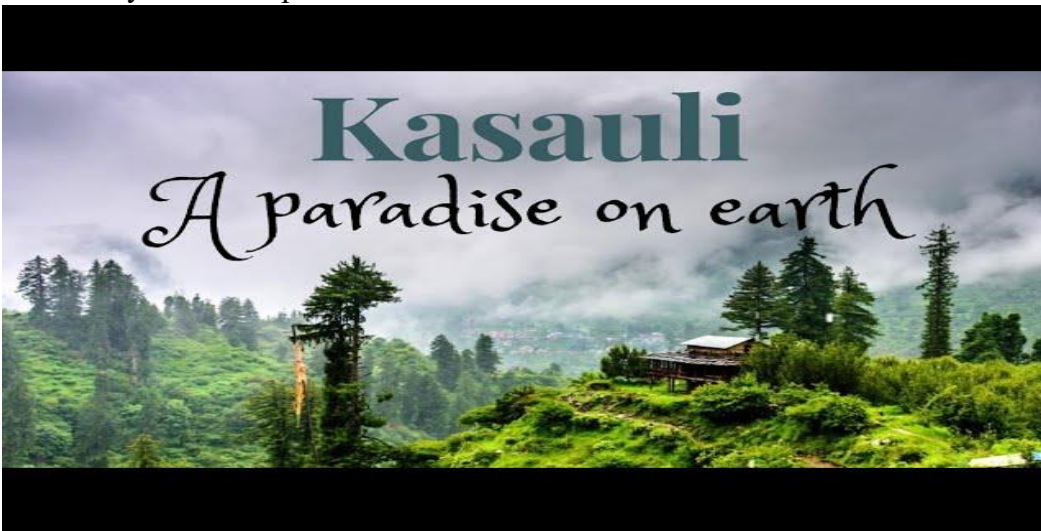
ERROR	CORRECTION

Q2) Rearrange the following jumbled words/phrases to make meaningful sentences:

- (a) inside/grandeur/the palace hall/it was/all
- (b) interwoven/pearls/were/flower garlands/sparkling/with
- (c) wooden stage/painted backcloth/the/decorated/with a/was
- (d) the Sandalwood/comes/oil/tree/the sandal/of Mysore/from
- (e) of sandalwood/the commercial/Tipu Sultan/recognized/significance
- (f) for the/monopolized/he then/the trade/state
- (g) is/basic/change/of/truth/existence/the
- (h) every/entire/is/the/cosmos/changing/moment
- (i) shows/Tagore/path of/the/taking/pride/love/in the/God/of
- (j) have been/by/infuriated/I/of/etiquette/lack/people's

WRITING: Worksheet 02

1. Write an article on the role of women in modern society and how equal education opportunities build a stronger nation.
2. Write a diary entry about an exciting family outing you enjoyed last weekend.
3. You are on a week-long school trip to Kasauli. Write a letter to your mother, sharing your well-being and what you have experienced so far.



LITERATURE: Worksheet 03

Q1) How did Sudha Murthy bridge the generational gap in her approach to teach her grandmother?

Q2) ***“Her style was easy to read and very convincing. Her stories usually dealt with complex psychological problems in the lives of ordinary people and were always interesting.”***

- a) Whom does “her” in the above lines refer to?
- b) What does the narrator mean when he says, “Her style”. What is she referring to?
- c) Find a word from the extract that means 'to make someone believe in something'.

Q3) Describe the grandmother as a student

Q4) How did grandmother prove that age is no barrier to learning?

Q5) When grandmother says, “What is use of money when I cannot be independent?”

She expresses a strong belief about the true value of education. Explain what this statement reveals about her character, her sense of self respect, and her understanding of independence.

Q6) *The mighty Himwant is ours
there is no equal anywhere on earth.
The generous Ganga is ours
Which other river can match her grace
The sacred Upanishads are ours
What is scriptures else to name with them??
This sunny golden land is ours
She is peerless, let's praise her!*

- Why does the poet refer to the land as “sunny golden”?
- What does the line “What a scriptures else to name with them?” Suggest about the importance of the Upanishads?
- Why does the poet describe Himavantt as having “no equal anywhere on earth”?

- Q7) Why did Sentila not disclose her interest in pot making to her parents?
Q8) What difficulty did santila face while shaping the clay?
Q9) How did Onula react when she saw the two batches of pots in the shed?
Q10) Describe the theme of tradition and community responsibility as presented in the story.
Q11) Explain Sentila's emotional state during her early attempts at learning pot, making.
Q12) How can the rows of identical pots be considered a turning point in the story?

PROJECT WORK:

1. Make a project on Sikkim showing its culture, tradition and lifestyle along with photographs. Prepare an art-integrated project on the state of Sikkim, combining language skills with artistic expression. Your project should reflect thorough research and creative presentation. Include the following aspects:
 - Introduction to Sikkim (geographical location, capital, climate)
 - Cultural heritage (traditions, festivals, attire, cuisine)
 - Important tourist destinations and natural beauty
 - Flora and fauna of the region
 - Language and literature of Sikkim
 - Unique features or lesser-known facts about the state. (Roll no 1-23)
2. A) Make a creative home décor item using waste material or design a creative souvenir related to Sikkim. (Roll no 24 onwards)

हिंदी

1. यदि कोई व्यक्ति भटक जाए तो उसे क्या करना चाहिए कि वह सुरक्षित रूप से अपने गंतव्य तक पहुँच जाए?
(संकेत- ऑनलाइन मानचित्र, पुलिस, स्कूल, सरकारी भवन, विद्यार्थी, सड़क पर लगे सूचना- दुकानों के बोर्डों पर लिखे पते, डाकघर आदि।)
2. आपको समाज सुधार का अवसर मिले तो आप क्या सुधार करना चाहोगे और कैसे? लिखिए।
3. तीर्थ और व्रत के स्थान पर रैदास ने आराध्य की भक्ति को प्रधान माना है। भक्तिकाल के कवि रैदास की तरह कबीर भी निराकार आराध्य की भक्ति पर बल देते हैं। तत्कालीन सामाजिक, सांस्कृतिक परिस्थितियों के आधार पर बताइए कि इसके क्या कारण हो सकते हैं?

4. पाठ्यक्रम में निर्धारित मुहावरों (गंगा) में से कोई 10 मुहावरे लिखिए।

5. अनुच्छेद लेखन

(i) देश के निर्माण में युवाओं की भूमिका

(ii) चुनाव में मतदान का महत्व

6. पत्र लेखन

(i) विद्यालय के वार्षिकोत्सव में पुरस्कार प्राप्ति की सूचना और अपनी प्रसन्नता का वर्णन करते हुए पिताजी को एक पत्र लिखिए।

(ii) आपका मित्र बीमारी के कारण अपनी परीक्षाएं नहीं दे पाया, इससे वह निराश है। एक प्रेरणा पत्र लिखकर उसका हौसला बढ़ाइए।

7. संवाद लेखन

(i) बढ़ती महंगाई के संबंध में मित्र से हुए वार्तालाप को संवाद के रूप में लगभग 100 शब्दों में लिखिए।

(ii) 'इंटरनेट बना दिमागी बुखार' विषय पर शिक्षक और छात्रों के बीच 100 शब्दों में संवाद लिखिए।

8. निम्नलिखित बिंदुओं को ध्यान में रखते हुए लक्षद्वीप पर सचित्र परियोजना कार्य कीजिए -

भौगोलिक स्थिति, संस्कृति, जनसंख्या, भाषा, त्योहार, वेशभूषा

9. कक्षा में करवाया गया कार्य याद कीजिए।

10. दिया गया कार्य अलग फाइल में कीजिए।

संस्कृतम्

प्रश्न-1 पाठ -1 का अनुवाद (file) में कीजिए।

प्रश्न-2 पाठ-2 का अनुवाद (file) में कीजिए।

प्रश्न-3 बालक, लता, कवि, फल के शब्द रूप याद

कीजिए तथा उनसे संबंधित दो-दो प्रश्न

(file) में कीजिए।

प्रश्न - 4 'गीता' विषय पर पांच श्लोक अर्थ सहित (file) में लिखिए तथा याद कीजिए।

प्रश्न-5 पाठ-1 तथा 2 के संधि तथा समास लिखकर याद कीजिए।

प्रश्न-6 (PA-1) का पाठ्यक्रम दोहराएं

MATHEMATICS

DO THE FOLLOWING WORKSHEET IN YOUR MATHS NOTEBOOK:

Q1. Determine whether the points (1,5), (2, 3) and (-2, -11) are collinear.

Q2. Find the point on the x-axis which is equidistant from A(2, - 5) and B(- 2, 9).

Q3. Find the area of triangle whose vertices are (3, 2), (-2, -3) and (2, 3) by plotting these on a graph paper.

Q4. Determine the coordinates of the centre of a circle passing through the point A(8, 6) B(2, - 2) and C(8,2).

Also, find the radius of the circle.

- Q5.** If P(2, - 1) Q(3, 4), R(- 2, 3) and S(-3,-2) be four points in a plane, show that PQRS is a rhombus but not a square
- Q6.** Find the lengths of the medians of a $\triangle ABC$ whose vertices are A(7, - 3), B(5, 3) and C(3,-11).
- Q7.** If P(a/2, 4) is the mid-point of the line segment joining the points A(- 6, 5) and B(- 2,3) then find the value of a.
- Q8.** If (a, b) is the mid-point of the line segment joining the points A(10,-6) and B(k,4) and $a - 2b = 18$ find the value of k and the distance AB.
- Q9.** Find the coordinates of the mid-point of the line segment whose endpoints are
(i) A(-4, 7) and B(6, 5)
(ii) P(0,- 8) and Q(10, 8)
- Q10.** If A(1, 3), B(- 1, 3) ,C(2,5) and D(x, 5) are the vertices of a parallelogram ABCD then find the value of x.
- Q11.** Find the degrees of the following polynomials:
(i) $12x^2 + 7x - 3$
(ii) $y^3 + 2y - 1$
- Q12.** What is the coefficient of z^2 in the polynomial $4z^3 + 5z^2 - 11$?
- Q13.** Find the value of the quadratic polynomial $8 - 4y^2 + 5$ if:
(i) $y = 0$ (ii) $y = -2$ (iii) $y = 5$
- Q14.** Sunita is as twice as old as Ashima. If six years is subtracted from Ashima's age and 4 years added to Sunita's age, then Sunita will be four times Ashima's age. How old were they two years ago?
- Q15.** The digits of a 2-digit number differ by 5. If the digits are interchanged and the resulting number is added to the original number, we get 99. Find the original number.
- Q16.** An auto-rickshaw fare starts at ₹25 and remains the same for the initial 2 km. Then it increases by ₹15 per km. What will be the fare for a travel of 10 km? Find a linear expression to represent the amount she will have in the nth month.
- Q17.** A plant is 12 cm tall and grows 3 cm every week.
(i) Write expression for height after x weeks.
(ii) Find height of the plant after 6 weeks.
- Q18.** A candle is 20 cm long and burns 2 cm every hour.
(i) Form expression for remaining length after x hours.
(ii) Find the length of the candle after 5 hours.
(iii) When will it finish?
- Q19.** A telecom company charges a fixed monthly fee and an additional cost per GB of the internet data used. A student observes that when she used 10 GB, her bill was ₹350. When she used 20 GB, her bill was ₹550. If the monthly bill y depends on the amount of data used, x (in GB), according to the relation $y = ax + b$, find the values of a and b.
- Q20.** Draw the graphs of the following sets of lines. In each case, reflect on the role of 'a' and 'b'
(i) $y = 2x - 1$, $y = 2x + 1$, $y = 2x + 5$,

(ii) $y = \frac{-1}{3}x$, $y = -x$, $y = -3x$

(iii) $y = \frac{1}{2}x$, $y = x$, $y = 2x$

SCIENCE

INSTRUCTIONS :

- 1- Do the worksheet in your respective subject registers.
- 2- Revise all work done in class.
- 3- Complete the notes

Do the worksheet given below-

Physics

1. Two bodies A and B start simultaneously from rest.

Body A accelerates at 2 m/s^2 .

Body B accelerates at 4 m/s^2 .

Find:

(A) velocity of each body after 10 s

(B) distance travelled by each body

difference in distances covered.

2. A car moving at 20 m/s applies brakes and stops after travelling 50 m .

Find:

(A) retardation

(B) time taken to stop.

3. A car moves with constant velocity of 15 m/s for 10 s . Draw velocity-time graph and calculate distance travelled using graph.

4. Draw a distance-time graph for a body moving with:

(A) uniform speed

(B) non-uniform speed

at rest

Explain each graph.

5. A car starts from rest and accelerates uniformly at 3 m/s^2 for 8 s. It then moves with constant velocity for 12 s and finally comes to rest in 5 s with uniform retardation.

Find:

(A) maximum velocity attained

(B) total distance travelled

average speed for whole journey

6. A train moving at 20 m/s accelerates uniformly at 2 m/s^2 for 15 s. It then moves with constant speed for 30 s and finally retards uniformly at 4 m/s^2 until it stops.

Find total distance travelled.

7. A car moving at 25 m/s sees an obstacle and applies brakes after 2 s. During reaction time the car continues with same velocity. Then it retards uniformly at 5 m/s^2 .

Find:

(A) total stopping distance

(B) total stopping time.

8. A particle moves such that its velocity changes from 10 m/s to 30 m/s in 5 s and then from 30 m/s to 10 m/s in next 10 s.

Find:

(A) acceleration in first part

(B) retardation in second part

(C) total displacement.

9. A body starts from rest and travels with acceleration 4 m/s^2 for some time, then moves with constant velocity for 20 s and finally comes to rest with retardation 2 m/s^2 in 10 s.

Find total displacement.

10 . A velocity-time graph forms a trapezium having:

parallel sides = 10 m/s and 30 m/s

height = 12 s

Find displacement.

Biology

1- Name the process by which Amoeba acquire its food.

2- Who discovered cell ?

3- What is the role of vacuole in plant cell?

- 4- Draw a well labelled diagram of plant cell and animal cell.
- 5- Explain the structure and function of plastids and name its types.
- 6-Who proposed "fluid mosaic model"?
- 7- Why is the plasma membrane model called "fluid"?
- 8- What is cell division explain its types?
- 9- Write the functions of :
 - a)ER
 - b) Ribosomes
 - c) Golgi Apparatus
- 10- Differentiate between prokaryotic and eukaryotic cell.

Chemistry

- Q1.** What is solution? Write its properties.
- Q2.** What are the components of solution? Define them.
- Q3.** What are the different types of mixtures? Explain them.
- Q4.** Explain centrifugation.
- Q5.** What is Tyndall effect?
- Q6.** Differentiate between Solution and Suspension on the basis of stability.
- Q7.** Why is milk considered a colloid and not a true solution?
- Q8.** Describe an experiment to prepare a saturated solution of salt in water.
- Q9.** What is sublimation? What type of mixtures can be separated by this method?
- Q10.** Explain crystallization.

SOCIAL SCIENCE

INSTRUCTIONS:

- *Do the Project in a project file.*
- *Do the Worksheet in any of your subject registers.*
- *Do the map work and paste it in your subject register.*
- *Complete the chapters done in class.*
- *Revise all the work done in class.*

WORKSHEET

1. Differentiate between weathering and erosion.
2. Explain the principle of 'one person', 'one vote', 'one value'.
3. Examine how corruption undermines democratic values and institutions.
4. Analyse how scarcity leads to the central economic problems and the need for economic systems.
5. Explain plate tectonic theory.
6. Explain why the mesolithic age is called a transitional phase.
7. Discuss the process and importance of domestication of plants and animals.
8. How did the Mesolithic age differ from the Palaeolithic age?
9. Explain why democracy is described as a continuous and evolving process.
10. Why is direct democracy not suitable for modern Nation States?
11. Discuss how welfare policies contribute to human development beyond income growth.
12. In what way does a mixed economy attempt to combine efficiency and equity?

Instructions for Project

1. The project should be neat and well-organized.
2. Use simple and clear language.
3. Include pictures, newspaper cuttings, or charts wherever possible.
4. Mention headings and subheadings properly.
5. Use only relevant and authentic information.
6. The project should preferably be handwritten.
7. Keep the project within **10-12 pages** excluding the cover page.

Project Topic: Election Process and Democracy

Project Question

“How are elections conducted in India, and how do elections strengthen democratic institutions?”

Project Outline

- 1. Cover Page**
- 2. Certificate**
- 3. Acknowledgement**
- 4. Index**
- 5. Introduction**
 - Students should explain:
 - Meaning of elections
 - Importance of elections in democracy
 - Role of citizens in democratic government
- 6. Election Process in India**
 - a. Voter Registration**
 - Eligibility for voting
 - Voter ID card
 - Electoral rolls
 - b. Election Campaigning**
 - Political parties and candidates

- Campaign methods
- Model Code of Conduct

c. Voting Process

- Polling booths
- EVMs and VVPAT
- Secret ballot system

d. Counting of Votes

- Counting centres
- Declaration of results
- Formation of government

7. Transparency and Fairness in Elections

Students should explain:

- Role of the Election Commission
- Security arrangements
- Equal opportunities for parties
- Free and fair elections
- Prevention of unfair practices

8. “How Elections Strengthen Democratic Institutions?”

9. Conclusion

10. References

ARTIFICIAL INTELLIGENCE

1. Imagine you are designing an AI solution to any of the following problems:

a) Bio medical problem b) Agricultural c) Education d) Space research e)Governance f)Transportation.

What ethical rules would you program into it to make sure it behaves responsibly? Exhibit it in the form of a collage/comic strip/pamphlet/poster/Brochure.

2. Revise the chapters done in class.

3. Create a PPT on Communication Skills (8-10 pages) .Take Printout

3. Do worksheet in Notebook

Communication Skills

Part A: Fill in the Blanks

1. Communication is the process of sharing _____.
2. Good communication helps build better _____.
3. Listening carefully is called _____ listening.
4. Facial expressions and gestures are examples of _____ communication.
5. Speaking clearly and politely shows good _____ skills.

Part B: Multiple Choice Questions

1. Which of the following is a form of verbal communication?
 - a) Smiling
 - b) Talking
 - c) Hand gestures
 - d) Eye contact
2. Which skill is most important while listening?
 - a) Interrupting
 - b) Ignoring
 - c) Paying attention
 - d) Shouting
3. Non-verbal communication includes:
 - a) Writing letters
 - b) Speaking
 - c) Body language
 - d) Reading
4. Which of these is a barrier to communication?
 - a) Noise
 - b) Clear speech
 - c) Eye contact
 - d) Confidence
5. A good speaker should:
 - a) Speak rudely
 - b) Speak clearly
 - c) Ignore listeners
 - d) Talk very fast

Part C: True or False

1. Communication always requires speaking. _____
2. Body language is a type of non-verbal communication. _____
3. Good listening improves communication. _____
4. Interrupting others is a good communication habit. _____
5. Confidence helps in effective communication. _____

Part D: Match the Following

Column A

1. Verbal Communication
2. Non-verbal Communication
3. Active Listening
4. Written Communication

Column B

- a. Gestures
- b. Paying attention
- c. Talking
- d. Letter/E-mail

Part E: Short Answer Questions

1. What is communication?
2. Name any two types of communication.
3. Why is active listening important?
4. Give two examples of non-verbal communication.
5. How can we improve communication skills?

Part F: Role Play Activity

Situation:

Your friend is nervous before a class presentation.

Write a short conversation (5–6 lines) where you encourage and help your friend communicate confidently.

ART AND CRAFT

1. Make a set of 2 'hanging planters' with different smiling/cartoon themes, out of waste plastic bottles and a plant. Submit it after Summer vacation.
2. Make a beautiful Zantagal art using different coloured pen in art file nicely.
3. Complete all the pending classwork.
(Bird study, Animal study, landscape, folk art, modern art with geometric patterns)
4. Make a flower pot by using old bottles, shilpkar, and acrylic colours, etc.
(Use your creativity and innovation with presentation)

