

KENDRIYA VIDYALAYA GUMLA
SUMMER VACATION ASSIGNMENT-2026
SUBJECT – ENGLISH
CLASS-IX-A

1. Revise and relearn all the chapters taught in the class.
2. Complete the Art Integrated project assigned on Art, music, culture and cuisines of Goa.
3. Write a diary entry about how you spent your summer vacation in about 120 words.
4. You are Krish, a resident of Patel Nagar, New Delhi. There has been loud DJ noise during celebrations and weddings. It creates noise pollution. Write a letter to the editor of 'The Times of India' expressing your concern to reduce noise pollution. (150 Words)
5. Complete a story on the given line: -
I was alone at home. It was peaceful environment. Suddenly, I heard a strange voice outside my house down the street.....
6. Fill in the gaps from the words given in the brackets:-
 1. This is _____ tallest building in _____ area. (a/the)
 2. Timmy _____ listen to his parents.
 3. Manisha _____ be here in some time.
 4. The horse and carriage _____ arrived. (has/have)
 5. The girls _____ quite early. (arrive/arrived)
 6. The train before we thestation. (arrived/had left)
 7. Students the school before the bell..... (bell/had reached)

Subject Tr. 
05/05/26

KENDRIYA VIDYALAYA GUMLA

HOLIDAY H/W (CLASS-9) (2026-27)

NUMBER SYSTEM

MULTIPLE CHOICE QUESTIONS

- 1.) Can we write 0 in the form of p/q ?
a. Yes b. No c. Cannot be explained d. None of the above
- 2.) The three rational numbers between 3 and 4 are:
a. $5/2, 6/2, 7/2$ b. $13/4, 14/4, 15/4$
c. $12/7, 13/7, 14/7$ d. $11/4, 12/4, 13/4$
- 3.) In between any two numbers, there are:
a. Only one rational number b. Two rational numbers
c. Infinite rational numbers d. No rational number.
- 4.) Every rational number is:
a. Whole number b. Natural number
c. Integer d. Real number
- 5.) $\sqrt{9}$ is _____ number.
a. A rational b. An irrational
c. Neither rational nor irrational d. None of the above
- 6.) Which of the following is an irrational number?
a. $\sqrt{16}$ b. $\sqrt{(12/3)}$ c. $\sqrt{12}$ d. $\sqrt{100}$
- 7.) $3\sqrt{6} + 4\sqrt{6}$ is equal to:
a. $6\sqrt{6}$ b. $7\sqrt{6}$ c. $4\sqrt{12}$ d. $7\sqrt{12}$
- 8.) $\sqrt{6} \times \sqrt{27}$ is equal to:
a. $9\sqrt{2}$ b. $3\sqrt{3}$ c. $2\sqrt{2}$ d. $9\sqrt{3}$
- 9.) Which of the following is equal to X^3 ?
a. $X^6 - X^3$ b. $X^6 \cdot X^3$ c. X^6/X^3 d. $(X^6)^3$
- 10.) Which of the following is an irrational number?
a. $\sqrt{23}$ b. $\sqrt{225}$ c. 0.3796 d. 7.478478
- 11.) Which of the following is an irrational number?
a. 0.14 b. $0.14\overline{16}$ c. 0.1416 d. 0.4014001400014...
- 12.) $2\sqrt{3} + \sqrt{3} =$
a. 6 b. $2\sqrt{6}$ c. $3\sqrt{3}$ d. $4\sqrt{6}$
- 14.) The number obtained on rationalising the denominator of $1/(\sqrt{7} - 2)$ is
a. $(\sqrt{7}+2)/3$ b. $(\sqrt{7}-2)/3$ c. $(\sqrt{7}+2)/5$ d. $(\sqrt{7}+2)/45$
- 15.) Which of the following is rational?
a. $4/0$ b. $0/4$ c. $\sqrt{3}$ d. π
- 16.) The irrational number between 2 and 2.5 is
a. $\sqrt{11}$ b. $\sqrt{5}$ c. $\sqrt{22.5}$ d. $\sqrt{12.5}$

- 17.) The value of $\sqrt{10}$ times $\sqrt{15}$ is equal to
 a. $5\sqrt{6}$ b. $\sqrt{25}$ c. $10\sqrt{5}$ d. $\sqrt{5}$
- 18.) The decimal representation of the rational number is
 a. Always terminating b. Either terminating or repeating
 c. Either terminating or non-repeating d. Neither terminating nor repeating
- 19.) Which of the following is a rational number?
 a. 0 b. $2\sqrt{3}$ c. $2+\sqrt{3}$ d. π
- 20.) Which of the following is an irrational number?
 a. $\sqrt[3]{4/9}$ b. $\sqrt[3]{12/\sqrt{3}}$ c. $\sqrt{7}$ d. $\sqrt[3]{81}$
21. Simplify: $(\sqrt{5} + \sqrt{2})^2$.
22. Find the value of $\sqrt{(3)^{-2}}$.
23. Express 1.8181... in the form p/q where p and q are integers and $q \neq 0$.
24. Simplify : $\sqrt[3]{45} - 3\sqrt[3]{20} + 4\sqrt[3]{5}$
25. Evaluate : $(\sqrt{5} + \sqrt{2})^2 + (\sqrt{8} - \sqrt{5})^2$
26. Represent $\sqrt[3]{3.5}$, $\sqrt[3]{9.4}$, $\sqrt[3]{10.5}$ and on the real number line.
27. Multiply $(3-\sqrt{5})$ by $(6+\sqrt{2})$.
28. Rationalizing the denominator $\frac{1}{\sqrt{5}+\sqrt{2}}$ and subtract it from $\sqrt{5} - \sqrt{2}$.
29. Simplify $(\sqrt{5}+\sqrt{2})^2$.
30. Evaluate $11^{52} 11^{32}$.

POLYNOMIALS

- 1) x^2-2x+1 is a polynomial in:
 a. One Variable b. Two Variables c. Three variable d. None of the above
- 2) The coefficient of x^2 in $3x^3+2x^2-x+1$ is:
 a. 1 b. 2 c. 3 d. -1
- 3) A binomial of degree 20 in the following is:
 a. $20x + 1$ b. $x/20 + 1$ c. $x^{20} + 1$ d. x^2+20
- 4) The degree of $4x^3-12x^2+3x+9$ is
 a. 0 b. 1 c. 2 d. 3
- 5) $x^2 - x$ is _____ polynomial.
 a. Linear b. Quadratic c. Cubic d. None of the above
- 6) $x - x^3$ is a _____ polynomial.
 a. Linear b. Quadratic c. Cubic d. None of the above
- 7) $1+3x$ is a _____ polynomial.
 a. Linear b. Quadratic c. Cubic d. None of the above

- Prepare a project on Real number.**

HOLIDAY HOMEWORK

Class IX – Mathematics

Chapter: Coordinate Geometry

General Instructions:

- Complete all questions neatly in your Mathematics notebook.
- Draw accurate diagrams using pencil, ruler, and graph paper wherever required.
- Label all points clearly.
- Show proper steps in all solutions.
- Submit the work on the first day after vacation.

Section A: Basic Practice**Q1. Write the coordinates of the following:**

- (a) A point on the x-axis
- (b) A point on the y-axis
- (c) The origin

Q2. Identify the quadrant of each point:

- (a) (3, 5)
- (b) (-4, 6)
- (c) (-2, -7)
- (d) (5, -3)

Q3. Plot the following points on a Cartesian plane:
A(2, 3), B(1, -2), C(-3, 5), D(-1, -4)**Section B: Conceptual Understanding****Q4. Write the coordinates of a point located:**

(a) 3 units to the right of the origin

(b) 4 units above the origin

(c) 5 units to the left and 2 units below the origin

Q5. Fill in the blanks:

(a) If a point lies on the x-axis, its y-coordinate is _____

(b) If a point lies on the y-axis, its x-coordinate is _____

(c) The origin lies in _____ quadrant.

Q6. State whether the following points lie on x-axis, y-axis or neither:

(a) (0, 5)

(b) (6, 0)

(c) (3, 4)

Section C: Competency-Based Questions

Q7. Real-Life Application

A treasure is located at (5, -3).

(a) Identify the quadrant

(b) Describe its position with respect to axes

Q8. Case Study

Points: A(2,4), B(-2,4), C(-2,-4), D(2,-4)

(a) Identify quadrants of all points

(b) Which points are symmetric about y-axis?

(c) Which points are symmetric about origin?

Q9. Explain why (0,0) does not lie in any quadrant.

Q10. A point moves 3 units right and 5 units up.

(a) Find its coordinates

(b) Identify its quadrant

Section D: Higher Order Thinking Skills

Q11. Find a point in second quadrant which is 4 units from y-axis and 3 units above x-axis.

Q12. Can a point lie on both axes simultaneously? Justify.

Section E: Activity-Based Learning

Q13. Graph Activity :

Plot: (1,2), (2,4), (3,6), (4,8)

Write:

- Pattern observed
- Whether points lie on a straight line

Q14. Creative Activity

Create a figure on graph paper using at least 8 points and write their coordinates.

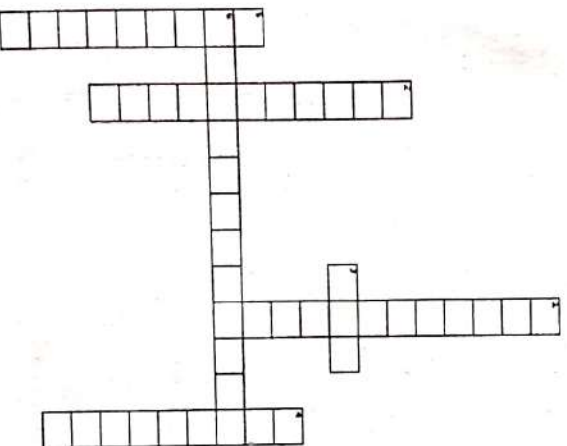
Bonus Question

Q15. Find two points in same quadrant having same x-coordinate but different y-coordinates.

28/9/20

KENDRIYA VIDYALAYA GUMLA
SUMMER HOLIDAY HOMEWORK-2026
CLASS-IX SUBJECT BIOLOGY

1. What do you understand by synthetic cell ? What is the future of the development of synthetic cells using non-living chemicals? If a synthetic cell is developed, what may be the related ethical issues?
2. Make a diagrammatic presentation as per NCERT textbook on:
 - a) plant and animal cell
 - b) meiosis and mitosis.
3. Develop a project on reducing plastic usage, calculate your family's carbon footprint, and suggest actionable changes to improve local environmental health.
4. Cross word puzzle



ACROSS

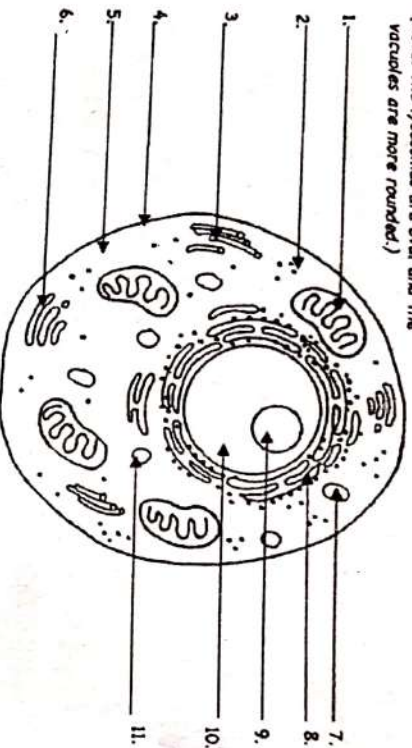
3. _stands Deoxyribo Nucleic Acid
6. These are important for photosynthesis in plants

DOWN

Shabir

1. They are the powerhouses of the cell
2. Paramecium is a organisms
4. It is a kind of waste disposal system of the cell
5. One of the biologists who presented the cell theory

Label the animal cell drawn below and then give the function of each cell part.
(Note: The lysosomes are oval and the vacuoles are more rounded.)



Cell Part:	Function of Cell Part:
12. nucleus	
13. endoplasmic reticulum	
14. ribosome	
15. cytoplasm	
16. nucleolus	
17. Golgi body	
18. cell membrane	
19. cytoskeleton	
20. lysosome	
21. mitochondria	
22. vacuole	

6. Class Notebook: All students must complete their class notes for Chapter 'Cell : the building block of life' till date, ensure their Biology notebooks are fully updated.
7. Read and revise whatever taught in class.

Kendriya Vidyalaya Gumla

Subject: Chemistry

HOLIDAY HOMEWORK

Chapter 5: Exploring Mixtures and Their Separation

Session: 2026-27

Class - 09

Section A: Objective Type Questions (MCQs) [1 Mark Each]

- Which of the following is an example of a heterogeneous mixture?
(a) Brass (b) Sugar in water (c) Milk (d) Clean air
 - Tincture of iodine has antiseptic properties. This solution is made by dissolving:
(a) Iodine in potassium iodide (b) Iodine in vaseline (c) Iodine in water (d) Iodine in alcohol
 - The Tyndall effect can be clearly observed in:
(a) A true solution (b) A colloidal solution (c) A suspension (d) Both (b) and (c)
 - A mixture of common salt and ammonium chloride can be separated by the process of:
(a) Sublimation (b) Filtration (c) Chromatography (d) Simple Distillation
 - Which of the following dispersion systems represents a solid-in-gas mixture (Aerosol)?
(a) Fog (b) Smoke (c) Cheese (d) Shaving cream
 - The continuous zig-zag movement of colloidal particles in a dispersion medium is called:
(a) Tyndall effect (b) Brownian movement (c) Centrifugation (d) Filtration
 - Alloys are considered as mixtures because:
(a) They cannot be separated by physical methods
(b) They show the properties of their constituent elements
(c) They have a variable composition
(d) Both (b) and (c)
- ### Section B: Short Answer Type Questions [2-3 Marks Each]
- Differentiate between a homogeneous and a heterogeneous mixture. Give one example of each. (2 Marks)
 - What is a saturated solution? How can you convert a saturated solution into an unsaturated solution without adding more solvent? (2 Marks)

10. Why do we see the path of light in a dark dusty room when a small hole allows a beam of sunlight to enter? Name this scientific phenomenon. (3 Marks)

11. To make a saturated solution, 36g of sodium chloride (NaCl) is dissolved in 100g of water at 293 K. Calculate its concentration in terms of mass by mass percentage. (3 Marks)

12. How will you separate a mixture containing kerosene and petrol (difference in boiling points > 25°C)? Name the technique. (3 Marks)

Section C: Case-Based Question [4 Marks]

13. **Case Study:** Rohan took three beakers A, B, and C. He added salt to water in A, chalk powder to water in B, and milk to water in C. He stirred them and left them for 15 minutes. Later, he passed a laser beam through each.

- (i) In which beaker(s) will the path of the light beam become visible? (1 Mark)
- (ii) What type of mixture is in Beaker B? What happens if it's filtered? (1 Mark)
- (iii) Compare the stability of mixtures in Beaker A and Beaker C. (2 Marks)

Section D: Long Answer Type Questions [5 Marks Each]

14. (a) Define 'solute' and 'solvent'. (2 Marks)

(b) A solution contains 40g of salt in 320g of water. Calculate mass percentage concentration.

(2 Marks)

(c) Write any two properties of a suspension. (1 Mark)

15. (a) Explain the process of obtaining different gases from air. Name the technique used. (2 Marks)

(b) Why is this technique chosen over simple distillation? (1 Mark)

(c) What is Chromatography? Write any two applications of this technique in medicine. (2 Marks)

IMPORTANT INSTRUCTIONS FOR STUDENTS:

- **Class Notebook:** All students must complete their class notes for Chapter 5 and ensure their science notebooks are fully updated.
- **NCERT Questions:** Solve all NCERT textbook exercise questions for this chapter in your notebooks.
- **Summer Vacation Science Project:** Every student must prepare a science project during the summer vacation. This is an **individual** project, and each student must submit their own separate work.

Adhwan
06/05/26

KEN DRIYA VIDYALAYA GUMLA

HOLIDAY HOMEWORK FOR SUMMER BREAK (2026-27)

FOR CLASS :-IX

SUBJECT: PHYSICS

1. Make a project report on the contributions of famous scientists (at least five) who contributed in the field of physics.

2. Write and complete all the questions and examples in the chapter "Motion around us" from science textbook.

3. Questions related to real life:-

- (a) Two trains are moving in opposite directions at 15 m/s and 10 m/s. One train is 150 m long, the other 100 m long.
 - How long will they take to completely cross each other?
- (b) A scooter moving at 12 m/s overtakes a car moving at 8 m/s. The scooter is 2 m long and the car is 4 m long.
 - How long does it take for the scooter to completely overtake the car?
- (c) . An airplane accelerates on a runway from rest at 4 m/s^2 for 30 seconds.
 - What is its takeoff speed?
 - How long is the runway needed?
- (d) . A bus is moving at 25 m/s. The driver takes 2 seconds to react before applying brakes. After that, the bus decelerates at 5 m/s^2 .
 - How far does the bus travel during reaction time?
 - What is the total stopping distance?

ACTIVITIES:-

- **WIND DIRECTION AND SPEED OBSERVATION**

CONCEPT- FORCE AND MOTION

1. Use a simple paper wind vane to find direction.
2. Observe strength of wind using movements of leaves/flags.
3. Record data for several days.

- **MEASURING SPEED OF MOVING OBJECTS**

CONCEPT-MOTION, SPEED

1. GO to any open space or playground
2. Measure a fix distance
3. Use a stop watch to record time taken by a bicycle or person
4. Calculate speed by using formula.

Sanskrit

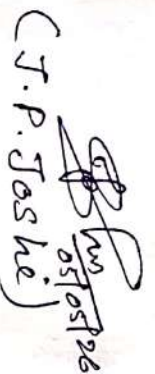
KENDRIYA VIDYALAYA GUMLA
HOLIDAY HOME WORK FOR SUMMER VACATION 2026-27
ARTIFICIAL INTELLIGENCE (417)
CLASS-IX

Write and learn all the questions with answers in your AI copy.

1. Communication means:
a) Talking only b) Sharing information c) Writing only d) Listening only
2. Which is NOT an element of communication?
a) Sender b) Message c) Time d) Receiver
3. The person who receives the message is called:
a) Sender b) Receiver c) Channel d) Feedback
4. Which is an example of verbal communication?
a) Gesture b) Facial expression c) Phone call d) Posture
5. Which is a type of non-verbal communication?
a) Email b) Letter c) Gesture d) Report
6. Feedback is:
a) Sending message b) Receiving message c) Response to message d) Medium
7. Which communication uses body language?
a) Verbal b) Written c) Non-verbal d) Visual
8. Which is a communication barrier?
a) Clear message b) Noise c) Feedback d) Understanding
9. Which is NOT a TC of communication?
a) Clear b) Complete c) Confusing d) Correct
10. Email is an example of:
a) Oral communication b) Written communication
c) Non-verbal communication d) Visual communication
11. Face-to-face communication is:
a) Slow b) Ineffective c) Quick and clear d) Expensive
12. Which is a visual communication example?
a) Speech b) Poster c) Call d) Meeting
13. Which barrier is related to language?
a) Physical b) Cultural c) Linguistic d) Organizational
14. Written communication includes:
a) SMS b) Gesture c) Expression d) Posture
15. Communication cycle ends with:
a) Sender b) Feedback c) Message d) Channel
16. Which is NOT verbal communication?
a) Talking b) Writing c) Listening d) Gesture

17. A smile is an example of:
- a) Verbal b) Written c) Non-verbal d) Oral
18. Channel means:
- a) Sender b) Receiver c) Medium of communication d) Feedback
19. Which is small group communication?
- a) Talking alone b) Meeting c) Writing letter d) Email
20. Define communication and list its elements.
21. Write any two types of communication.
22. Give any two advantages of verbal communication.
23. What are communication barriers? Give two examples.
24. What are the 7Cs of effective communication?
25. Explain types of communication with examples.
26. Describe the communication cycle.
27. Explain the importance of feedback in communication.
28. What do you understand by Artificial Intelligence?
29. Explain verbal and non-verbal communication with examples.
30. Differentiate between verbal and non-verbal communication.

***** ALL THE BEST *****


(J.P. Joshi)
PGT (CS)

20/5/2020

कविता में से अलंकार छांटकर लिखना है।

पठित पाठ्यक्रम में से व्याकरणिक घटकों को छांटकर (उपसर्ग-प्रत्यय, संज्ञा, सर्वनाम, विशेषण शब्द, तथा फ़ाड़ल में तैयार करना है।

पोर्टफोलियो तथा भक्तिकाल के कवियों की सूची बनाकर किसी एक संत कवि का साहित्यिक परिचय सचित्र पठित पाठ्यक्रम की पूर्ण कर कठस्थ करना है।

दो सूचना (स्वच्छिक विषयों पर) लिखनी है।

चार पत्र (स्वच्छिक विषयों पर) औपचारिक दो और अनौपचारिक दो।

पाँच अनुच्छेद (स्वच्छिक ज्वलंत विषयों पर) लिखने हैं।

दो ई.मेल (स्वच्छिक विषयों पर) लिखनी है।

दो संवाद (स्वच्छिक विषयों पर) लिखने हैं।

कक्षा: नवी हैव ग्रीष्मावकाश गृहकार्य

KENDRIYA VIDYALAY GUMLA

HOLIDAY H/W(CLASS-10)(2026-27)

1. Express each number as a product of its prime factors:
(i) 140 (ii) 156 (iii) 3825 (iv) 5005 (v) 7429
2. Find the LCM and HCF of the following pairs of integers and verify that LCM $\times$ HCF = product of the two numbers.
(i) 26 and 91 (ii) 510 and 92 (iii) 336 and 54
3. Find the LCM and HCF of the following integers by applying the prime factorisation method.
(i) 12, 15 and 21 (ii) 17, 23 and 29 (iii) 8, 9 and 25
4. Given that HCF (306, 657) = 9, find LCM (306, 657).
6. Explain why $7 \times 11 \times 13 + 13$ and $7 \times 6 \times 5 \times 4 \times 3 \times 2 \times 1 + 5$ are composite numbers.
7. Prove that $\sqrt{5}$ is irrational.
8. Prove that $3 + 2\sqrt{5}$ is irrational. 93. Prove that the following are irrationals:
(i) $1/\sqrt{2}$ (ii) $7\sqrt{5}$ (iii) $6 + \sqrt{2}$
9. Find the zeroes of the following quadratic polynomials and verify the relationship between the zeroes and the coefficients.
(i) $x^2 - 2x - 8$ (ii) $4s^2 - 4s + 1$ (iii) $6x^2 - 3 - 7x$ (iv) $4u^2 + 8u$
(v) $t^2 - 15$ (vi) $3x^2 - x - 4$
10. Find a quadratic polynomial each with the given numbers as the sum and product of its zeroes, respectively.
(i) $1/4, -1$ (ii) $\sqrt{2}, 1/3$ (iii) $1, 1$ (iv) $-1/4, 1/4$
11. Verify that the numbers given alongside of the cubic polynomials below are their zeroes. Also verify the relationship between the zeroes and the coefficients in each case:
(i) $2x^3 + x^2 - 5x + 2$; $-1/2, 1, -2$ (ii) $x^3 - 4x^2 + 5x - 2$; $2, 1, 1$
12. If the zeroes of the polynomial $x^2 - 3x^2 + x + 1$ are $a - b, a, a + b$, find a and b .
13. On comparing the ratios $a_1/a_2, b_1/b_2, c_1/c_2$ find out whether the lines representing the following pairs of linear equations intersect at a point, are parallel or coincident:
(i) $5x - 4y + 8 = 0$; $7x + 6y - 9 = 0$
(ii) $9x + 3y + 12 = 0$; $18x + 6y + 24 = 0$
(iii) $6x - 3y + 10 = 0$; $2x - y + 9 = 0$
14. On comparing the ratio, $(a_1/a_2), (b_1/b_2), (c_1/c_2)$ find out whether the following pair of linear equations are consistent, or inconsistent.
(i) $3x + 2y = 5$; $2x - 3y = 7$
(ii) $2x - 3y = 8$; $4x - 6y = 9$

[Signature]
20/3/20

- (iii) $(3/2)x + (5/3)y = 7$; $9x - 10y = 14$
 (iv) $5x - 3y = 11$; $-10x + 6y = -22$
 (v) $(4/3)x + 2y = 8$; $2x + 3y = 12$

15. Which of the following pairs of linear equations are

consistent/inconsistent? If consistent, obtain the solution graphically:

- (i) $x + y = 5$, $2x + 2y = 10$
 (ii) $x - y = 8$, $3x - 3y = 16$
 (iii) $2x + y - 6 = 0$, $4x - 2y - 4 = 0$
 (iv) $2x - 2y - 2 = 0$, $4x - 4y - 5 = 0$

16. Solve the following pair of linear equations by the elimination method and the substitution method:

- (i) $x + y = 5$ and $2x - 3y = 4$
 (ii) $3x + 4y = 10$ and $2x - 2y = 2$
 (iii) $3x - 5y - 4 = 0$ and $9x = 2y + 7$
 (iv) $x/2 + 2y/3 = -1$ and $x - y/3 = 3$

PROJECT

Prepare a project on Real number.

Help link is given below:-

<https://www.youtube.com/watch?v=-QSpyQcWgJQ>
https://www.youtube.com/watch?v=Exr7_raqvYo&t=2s
<https://www.youtube.com/watch?v=u5cEdBtWBz0>
<https://www.youtube.com/watch?v=dUODEweinYs>

NOTE: This assignment focuses on **REAL NUMBERS, POLYNOMIALS & PAIRS OF LINEAR EQUATION IN TWO VARIABLES**. Please complete this assignment in a thin copy and submit it in after summer break.



Handwritten signature and date: 16/3/2024

KENDRIYA VIDYALAYA GUMLA SUMMER VACATION HOLIDAY HOMEWORK CLASS X B (2026-27)

1. Prepare a **Subject enrichment activity (project work)** any one of the following topics-

Consumer awareness Or Social issues or Sustainable development

The distribution of marks over different aspects relating to project work is as follows:

s.no.	aspects	Marks (w-5)
A	Content, accuracy, originality, and analysis	4
B	Presentation and creativity	3
C	Viva voce	3

Note: prepare in a A4 SHEET PAPER and file

2. Prepare a **portfolio** activity –

1) Classwork and homework – write notes and question answer of the chapters 1 (HIST, GEO, ECO, POL.SC) and geo chapter 2

2. Prepare a map work activity on outline map of India-

1. History Nationalism in India I. Congress sessions: • 1920 Calcutta • 1920 Nagpur • 1927 Madras session II. 3 Satyagraha movements: • Kheda • Champaran • Ahmedabad mill workers III. Jallianwala Bagh IV. Dandi March

Geography 2. **Resources and Development** Identify Major Soil Types

3. Water Resources Locating and Labeling: • Salal • Bhakra Nangal • Tehri • Rana Pratap Sagar • Sardar Sarovar • Hirakund • Nagarjun Sagar • Tuhgabhadra

4. Agriculture Identify: • Major areas of Rice and Wheat • Largest/Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton, and Jute

5. Minerals and Energy Resources Identify: a. Iron Ore mines • Mayurbhanj • Durg • Bailadila • Bellary • Kudremukh b. Coal Mines • Raniganj • Bokaro • Talcher • Neyveli c. Oil Fields • Digboi • Naharkatia • Mumbai High • Bassien • Kalol • Ankaleshwar

Locate and label: Power Plants a. Thermal • Namrup • Singrauli • Ramagundam b. Nuclear • Narora • Kakrapar • Tarapur • Kalpakkam Manufacturing Industries I. Manufacturing Industries (Locating and labeling only) • Cotton textile Industries: a. Mumbai, b. Indore, c. Surat, d. Kanpur, e. Coimbatore

Iron and Steel Plants: a. Durgapur, b. Bokaro, c. Jamshedpur, d. Bhilai, e. Vijayanagar, f. Salem • Software technology Parks: a. Noida, b. Gandhinagar, c. Mumbai, d. Pune, e. Hyderabad, f. Bengaluru, g. Chennai, h. Thiruvananthapuram

6. Lifelines of National Economy Locating and Labeling: a. Major Sea Ports • Kandla • Mumbai • Marmagao • New Mangalore • Kochi • Tuticorin • Chennai • Visakhapatnam • Paradip • Haldia b. International Airports • Amritsar (Raja Sansi-Sri Guru Ram Dasjee) • Delhi (Indira Gandhi) • Mumbai (Chhatrapati Shivaji) • Chennai (Meenam Bakkam) • Kolkata (Netaji Subhash Chandra Bose) • Hyderabad (Rajiv Gandhi)

Kamla May

1. Prepare a **Subject enrichment activity (project work)** On **Disaster Management**

The distribution of marks over different aspects relating to project work is as follows:

s.no.	aspects	Marks (w-5)
A	Content, accuracy, originality, and analysis	4
B	Presentation and creativity	3
C	Viva voce	3

Note: prepare in a A4 SHEET PAPER and file

2. Prepare a **portfolio** activity –

1) Classwork and homework – write notes and question answer of the chapters 1 (HIST, GEO, ECO, POL.SC) and geo chapter 2

2. Prepare a map work activity on outline map of India- **CLASS IX LIST OF MAPS**

Name of the Chapter List of Areas to be located /labelled/identified on the map I

1.**History French Revolution** Outline political map of France. Locate/label/identify. • Bordeaux, Nantes, Paris and Marseille

2.**Socialism in Europe and the Russian Revolution** Outline political map of the World.

Locate/label/identify Major countries of First World War: Central Powers: Germany, Austria-Hungary, Turkey (Ottoman Empire). Allied Powers – France, England, Russia, and USA

3.**Nazism and the Rise of Hitler** Outline Political Map of World. Locate/label/identify Major countries of Second World War Axis: Powers – Germany, Italy, Japan Allied Powers – UK, France, Former USSR, USA II

Geography India: size and location • India – States and Capitals • Tropic of Cancer, Standard Meridian (Location and Labeling) • Neighbouring Countries

4.**India physical features** • Mountain Ranges: The Karakoram, The Zaskar, The Shivalik, The Aravali, The Vindhya, The Satpura, Western and Eastern Ghats • Mountain Peaks – K2, Kanchan Junga, Anai Mudi • Plateau – Deccan Plateau, Chota Nagpur Plateau, Malwa Plateau • Coastal Plains – Konkan, Malabar, Coromandel & Northern Circar (Location and Labelling)

5.**Drainage system** Rivers (Identification only) • The Himalayan River Systems – The Indus, The Ganges, and The Sutlej • The Peninsular Rivers – The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi • Lakes – Wular, Pulicat, Sambhar, Chilika Climate • Annual rainfall in India, Monsoon wind direction Population •

6. **Population** density of all states • The state having highest and lowest density of population.

2026-26) 2 +

CLASS-X: 417- ARTIFICIAL INTELLIGENCE HW FOR SUMMER VACATION 2026-27

ite and learn all these questions with answers in AI copy.

- Q1. What do you mean by communication? What are their types?
- Q2. What are the essential components of communication cycle?
- Q3. What is the importance of feedback in the communication process?
What are various types of feedback?
- Q4. Write any four functions of effective communication in our life.
- Q5. What are the five principles of effective communication? List them in the order of their importance according to you.
- Q6. What are the 7Cs of communication? Which one is the most important as per you and why?
- Q7. Write any 04 barriers in communication. Explain each.
- Q8. Write any 04 measures to overcome barriers of communication.
- Q9. Discuss the essential elements that should be considered before writing a good paragraph, highlighting their importance in organizing coherent and effective writing.
- Q10. Explain the eight parts of speech? Use them in a paragraph and show each component.
- Q11. What are the conventional rules for capitalization and Punctuation while writing sentences?
- Q12. What do you mean by a sentence? What are the four types of sentences? Explain giving one example for each.
- Q13. What are different parts of a sentence?
- Q14. What are different articles used in communication? Explain with suitable examples.
- Q15. Define a "Phrase" and discuss its role and importance in constructing sentences.
- Q16. Define Simple, Compound and Complex sentences with example.
- Q17. Differentiate between active and passive voice with example.
- Q18. What is the difference between verbal and non- verbal communication?
Explain with examples.
- Q19. Write any four advantages of non-verbal communication.
- Q20. Write five Do's and Don'ts of effective body language.

*****ALL THE BEST *****


(J.P. Joshi)
PGT (CS)

KENDRIYA VIDYALAYA GUMLA

HOLIDAY HOMEWORK FOR SUMMER BREAK (2026-27)

CLASS-X

SUBJECT-PHYSICS

1. Write and complete questions and examples from chapter "light-reflection and refraction" from science textbook.
2. Draw ray diagram for both concave and convex mirror and lens for the different positions of object
3. An object is placed at a distance of 5 cm from a concave lens of focal length 10 cm. Use the lens formula and find the position and nature of image formed.
4. The refractive index of glass with respect to air is 1.5. If the speed of light in air is 3.0×10^8 m/s. calculate the speed of light in glass.
5. Explain total internal reflection.. Write two practical applications where it is used.
6. A ray of light incident at an angle of 45° on a glass slab. If the refractive index of glass is 1.5. Find the angle of refraction using snell's law.
7. Through the circuit diagram of series and parallel combination find the expression of equivalent resistance for both the cases.
8. Explain refraction of light with suitable diagram.
9. Explain heating effect of electric current along with its applications.
10. State and explain ohm's law and joule's law of heating.

Real life based problems-

11. Explain why the wires of A.C., Refrigerator, electric iron etc are made short and thick.
12. Why we generally use aluminium and copper wire for electric wires? Why do we not use silver wires for transmission of electric current of long distances. Give two scientific reasons.
13. A person sitting behind in a hall and unable to see the screen present in stage . explain why he is not able to see the screen. Is he suffering from any eye disease then what would be correction for this.
14. Why does the old age people not able to see nearby and distant objects? How do they overcome from this situation.
15. Why do we use red color in traffic signals for stop?

ACTIVITY-

Pick any two topic and prepare a small project file:-

- Application of lenses in daily life
 - Energy conservation at home
 - Application of dispersion .
- Add Diagrams, photos and explanation.

Saurabh

SUMMER HOLIDAY HOMEWORK

Subject: Chemistry | Class: X

Chapter 1: Chemical Reactions and Equations

Section A: Objective Type Questions (1 Mark Each)

- Which of the following is not a physical change?
A) Boiling of water to give water vapour
B) Melting of ice to give water
C) Dissolution of salt in water
D) Combustion of Liquefied Petroleum Gas (LPG)
- The following reaction is an example of:
 $4\text{NH}_3(\text{g}) + 5\text{O}_2(\text{g}) \rightarrow 4\text{NO}(\text{g}) + 6\text{H}_2\text{O}(\text{g})$
(i) Displacement reaction (ii) Combination reaction (iii) Redox reaction (iv) Neutralisation reaction
A) (i) and (iv) B) (ii) and (iii) C) (i) and (iii) D) (iii) and (iv)
- Which gas is used in the storage of fat and oil-containing foods for a long time?
A) Carbon dioxide B) Oxygen C) Nitrogen D) Neon
- Electrolysis of water is a decomposition reaction. The mole ratio of hydrogen and oxygen gases liberated during electrolysis of water is:
A) 1:1 B) 2:1 C) 4:1 D) 1:2

Section B: Very Short Answer Questions (2 Marks Each)

- Why should a magnesium ribbon be cleaned before burning in air? [2]
- Why is respiration considered an exothermic reaction? Explain. [2]
- Balance the following chemical equation and identify the type of reaction:
 $\text{Fe}(\text{s}) + \text{H}_2\text{O}(\text{g}) \rightarrow \text{Fe}_3\text{O}_4(\text{s}) + \text{H}_2(\text{g})$ [2]

Section C: Short Answer Questions (3 Marks Each)

- Define decomposition reaction. Write one equation each for decomposition carried out with the help of:
(a) Heat (b) Light (c) Electricity [3]

9. Why does the color of copper sulphate solution change when an iron nail is dipped in it? Write the chemical equation involved. [3]

10. Explain the terms 'Oxidation' and 'Reduction' in terms of gain or loss of oxygen with two examples each. [3]

Section D: Long Answer Questions (5 Marks Each)

11. (a) What is a balanced chemical equation? Why should chemical equations be balanced? [5]

(b) Translate the following statements into chemical equations and then balance them:
(i) Hydrogen gas combines with nitrogen to form ammonia.

(ii) Barium chloride reacts with aluminium sulphate to give aluminium chloride and a precipitate of barium sulphate.

12. Explain the following with one example each: [5]

(a) Corrosion (b) Rancidity (c) Displacement Reaction (d) Double Displacement Reaction (e) Precipitation Reaction

Section E: Case-Based Study Question (4 Marks)

Case Study: A student took a small amount of calcium oxide or quick lime in a beaker and slowly added water to it. He touched the beaker and felt that it had become quite hot. He also observed a vigorous reaction producing a white solid substance called slaked lime.

13. Answer the following questions based on the above case:

(a) Write the chemical formula of Quick Lime and Slaked Lime. (1 Mark)

(b) What type of reaction is this? (Combination/Decomposition) (1 Mark)

(c) Write the balanced chemical equation for the above reaction. (1 Mark)

(d) Why did the beaker become hot? Classify the reaction as exothermic or endothermic. (1 Mark)

SUMMER VACATION HOLIDAY HOMEWORK CLASS -X (2026-27)

SCIENCE (BIOLOGY)

- 1) Explain Digestion and Human Digestive System with well labeled diagram.
- 2) a) Define Respiration. Differentiate between Aerobic and Anaerobic respiration.
b) Explain various pathways of Glucose breakdown.
- 3) a) What are the components of blood. Give brief explanations.
b) Differentiate between Artery and Vein.
c) Draw a well labelled diagram human heart.
d) Describe Double circulation.
e) short note on lymph.
- 4) a) How water and minerals are transported in plant.
b) Explain transpirational pull.
- 5) a) Describe human Excretory System with well labelled diagram.
b) Explain the mechanism of Urine formation with help of well-labelled diagram.
c) What is Haemodialysis ?

Handwritten signature and date: 04/05/2026

कक्षा: दसवीं हेतु ग्रीष्मावकाश गृहकार्य

- पठित पाठ्यक्रम को पूर्ण कर कंठस्थ करना है।
- पोर्टफोलियो तथा स्वतंत्रता सेनानियों की सूची बनाकर अपने क्षेत्र के किसी स्वतंत्रता सेनानी की सचित्र जीवनी A4 size के पेपर पर लिखकर फ़ाइल तैयार करनी है।
- पठित पाठ्यक्रम में से 30 वाक्य तथा 30 वाच्य के उदाहरण, कविता में से 20-20 अलंकारों के उदाहरण लिखने हैं।
- दो ई.मेल, दो पत्र तथा पाँच अनुच्छेद (स्वैच्छिक विषयों पर) लिखने हैं।



हस्ताक्षर: जितेन्द्र

दिनांक: 4/05/2026

विषय शिक्षक

(जितेन्द्र कुमार)

KENDRIYA VIDYALAYA GUMLA

Summer Vacation homework

Class-x **Social Science(2026-27)**

History – *The Rise of Nationalism in Europe*

- **Key Ideas:** French Revolution's role, concept of nation-state, unification of Germany & Italy, role of leaders (Mazzini, Garibaldi, Bismarck), symbolism in nationalism.
- **Homework Tasks:**
 - Write a short essay on how the French Revolution inspired nationalism in Europe.
 - Create a timeline of events leading to German unification.
 - Draw and explain the allegory of Marianne (symbol of French nation).
- **Practice Question:** Explain the role of Giuseppe Mazzini in spreading nationalism.

Geography – *Resources and Development*

- **Key Ideas:** Types of resources, resource planning, land use pattern, land degradation, soil types in India.
- **Homework Tasks:**
 - Prepare a chart showing classification of resources (natural, human-made, human).
 - Make a map of India marking different soil types.
 - Write a short note on land degradation and suggest conservation methods.
- **Practice Question:** Why is resource planning essential in India?

Political Science – *Power Sharing*

- **Key Ideas:** Importance of power sharing, examples from Belgium and Sri Lanka, horizontal vs vertical distribution of power.
- **Homework Tasks:**
 - Compare Belgium's power-sharing model with Sri Lanka's approach in a table.
 - Write a paragraph on why power sharing is important in a democracy.
 - Create a flowchart showing different forms of power sharing (legislature, executive, judiciary, social groups).
- **Practice Question:** How does power sharing strengthen democracy?

Economics – *Development*

- **Key Ideas:** Meaning of development, different goals of development, indicators (income, literacy, health), Human Development Index.
- **Homework Tasks:**
 - Interview 5 people in your locality and note their development goals (education, health, income, etc.).

- Prepare a bar graph comparing literacy rate and income levels of two states in India.
- Write a short essay on why per capita income is not a sufficient indicator of development.
- **Practice Question:** What is the difference between economic growth and development?

कक्षा IX संस्कृत गृह कार्य:

म. पाठ:

पुष्प संख्या - 3, 4, 5 और 6

2. शेषाचिह्नम पूरय - (परियोजना कार्यम्)

3. पत्र - लेखनम्

4. चित्र - वर्णनम्

5. प्रसङ्गानुसारं अर्थ-चक्रम्

SUMMER HOLIDAY HOME WORK (2026-27)

Class-9th B

Subject- English

General Instructions

1. Complete all work neatly in a notebook/file.
2. Maintain proper handwriting and presentation.
3. Use coloured sheets/pictures wherever required in project work.
4. Submit the homework after summer vacation.

Section A – Reading Skills

1. Read an English newspaper or storybook daily for 15 minutes and Write 10 new words with meanings every day.
2. Write one paragraph on any interesting news/article.
3. Prepare a list of five idioms with meanings and sentences.

Section B – Writing Skills

4. Write notices on: i) Inter-house Debate Competition ii) Lost Water Bottle
iii) Tree Plantation Drive iv) Cultural Programme
5. Write diary entries on: i) A memorable day of your vacation
ii) A visit to a village/picnic spot
6. Write descriptive paragraphs (100–120 words) on:
i) My Best Friend ii) A Visit to a Historical Place

Section D – Grammar

Write 10 examples each of:

Tenses Modals Reported Speech Determiners Subject–Verb Agreement

Section E – Project Work Topic: “Importance of Water Conservation”

Project Guidelines Page 3 – Index

Page 1 – Introduction (Write about the importance of water in daily life.)

Page(2-5)– Causes of Water Scarcity, Pollution, Wastage of Water, Deforestation, Global Warming

Page 6 – Effects of Water Shortage

Page 7 – Methods to Save Water, Rainwater Harvesting, Reusing Water, Turning off Taps, Plantation

Page 8 – Slogans on Water Conservation Page 9 – Conclusion

KENDRIYA VIDYALAYA GUMLA

SUMMER HOLIDAY HOME WORK (2026-27)

Class-10th

Subject- English

1. Project:-

Character analysis of Nelson Mandela:

Explore themes of freedom and courage in Long Walk to freedom.

Project Guidelines:-

- i. 8-10 handwritten pages.
 - ii. Include Pictures / newspaper cuttings.
 - iii. Cover page and index is compulsory
 - iv. Write neatly and creatively.
2. Write a letter to the Editor on
- i. Increasing Pollution ii. Excessive use of mobile phones by students.
3. Read unseen passages And write its answers in homework copy, And practice Grammar section from at least 5 sample papers.
4. Fill portfolio.