PM SHRI KV NO.1 IIT KHARAGPUR

SESSION 2025-26

INSTRUCTIONS FOR HOLIDAY HOMEWORK

1. Plan your day so that you have time to do different activities and play.Limit the use of mobile phones, tablets and any other screen.
2. Engage your self in a hobby like photography, painting, dancing, learning a new instrument, calligraphy, cooking and many others.
3. Eat healthy food and drink a lot of water. Protect yourself from the severe heat.
4. Exercise regularly and do some physical activity.
5. Do your holiday homework in separate sheets (A4) and arrange these sheets in a folder/ file- in a subject wise manner
6. Put date and margin on each sheet. Handwriting must be clear and neat.
7. Mention your name, roll no. and class on all the sheets.
8. Pace and plan your homework so that you can complete it before the last date.
9. Complete all the assignments of all subjects.
10. Submit the holiday home work sheets to your subject teacher after the vacation on 18th June- 20th June 2025.
11. Your holiday homework will be also seen by the Principal from 21st to 25th of June 2025.

Stay Healthy and Enjoy your Summer Vacation

Rinisha Bhaumik

प्राचार्य / Principal
पीएम श्री केन्द्रीय विद्यालय क्र-१
PM SHRI KENDRIYA VIDYALAYA No.1
IIT KHARAGPUR / भा.प्रौ.सं. खड़गपुर

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PM SHRI KENDRIYA VIDYALAYA NO 1, IIT Kharagpur

Class IX

Subject- English

Summer vacation Holiday Homework 2025

Reading Skills

1. Read the chapters 1 to 3 from 'Moments' Supplementary Reader and write the answers for the questions followed by in the class work copy.

2. Read the Newspaper daily and write only one news article under the given headings like National, International, Sports, Glamour, Business and express your views on it.

Writing Skills

3. Computers are a storehouse of knowledge and wisdom and they are hazardous too. Write an article on the topic 'The benefits and harms of computers'. Word limit is 180-200 words.

4. You encountered two strange people. They were different from normal human beings but they were quite interesting and exciting. As Manish\Manisha, using your ideas, write a story in about 150-200 words narrating your experience with them.

5. Write a letter to the chairman, Water Authority, in upto120- 150 words, on the problems related to scarcity of water. Also suggest a few effective remedies.

Thinking Skills

6. Write a self composed poem on the given topics with minimum 4 stanzas.

A) Music/Nature

B) I am blessed/ Self-love

7. Refer the dictionary and write the full forms of the abbreviations (Any 25) used in the dictionary.

8.Write the definition along with example on the following literary device.

i) Simile ii) Alliteration iii) Metaphor iv) Imagery v) Personification vi) Hyperbole vii) Oxymoron

9. **Art integrated assignment Leaf printing/ painting and descriptive writing**

https://www.youtube.com/watch?v=DknOvAlfX5o

PART A. Leaf Printing ·

Place a sheet of paper on the newspaper. ... · Paint the underside of the leaf. ... · Gently flip the leaf (paint side down) onto the paper. · Carefully press on the leaf to be sure the whole area of the leaf touches the paper. · Peel the leaf off the paper. ... · Repeat with the same leaf or with different leaves.

PART B. On an A4 sized sheet of paper write on the topic of 'Friendship . It may be an anecdotes/ description of a person who is your ideal friend/diary entry in about 150-200 words.

WISHING YOU A FUN FILLED, SAFE SUMMER VACATION.

04/05/25

Subject Committee Convener

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पी एम श्री केन्द्रीय विद्यालय क्रमाङ्क- 1,भा. प्रौ. सं., खडगपुर

ग्रीष्मावकाशगृहकार्यम् – 2025

कक्षा – नवमी विषयः – संस्कृतम्

(Make **separate FILE** for Holiday homework .)

1. स्वरसन्धि की परिभाषा और प्रकार लिख कर प्रथम , द्वितीय और तृतीय पाठ से उदाहरण चुनकर लिखो ।(प्रत्येक भेद के पाँच पाँच उदाहरण)।
2. कोई भी दश श्लोक अर्थ के साथ लिखो ।
3. शब्दरूप लिखो-

क) कोई भी तीन अकारान्त पुंल्लिङ्ग शब्दरूप – छात्र, देव, गज, अश्व, वृक्ष

ख) कोई भी तीन आकारान्त स्त्रीलिङ्ग शब्दरूप – सभा, शाखा, शोभा, कक्षा, कला

ग) कोई भी तीन ईकारान्त स्त्रीलिङ्ग शब्दरूप – नदी, देवी, नारी, भारती, पार्वती

4. संस्कृत में छात्र प्रतिज्ञा
5. धातुरूप (पाँच लकारों में)- अस्, कृ, पा, भू , गम्, नी, पा, नम्
6. 1 से 100 तक संस्कृत में संख्यावाचक शब्द लिखो।
7. किसी एक विषय पर संस्कृत में एक अनुच्छेद लिखो।

अस्माकं देशः , अनुशासनस्य महत्त्वम्, जलसुरक्षा- अभियानम्

7.5.25

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पी एम श्री केंद्रीय विद्यालय भा. प्रौ. सं, खड़गपुर

ग्रीष्म कालीन अवकाश हेतु गृहकार्य

कक्षा – 9 विषय – हिन्दी

प्र. 1 आपकी हिंदी पाठ्यपुस्तक क्षितिज के अध्याय दो बैलों की कथा में कई स्थानों पर मुहावरों का प्रयोग हुआ है । पाठ में से कोई पांच मुहावरों को छांटकर उनका अर्थ लिखिए तथा वाक्य प्रयोग कीजिए।

प्र. 2 टीवी के विभिन्न चैनलों जैसे एनिमल किंगडम, डिस्कवरी चैनल, एनिमल प्लेनेट आदि पर दिखाए जाने वाले कार्यक्रमों को देखकर किसी एक कार्यक्रम के बारे में अपनी प्रतिक्रिया लिखित रूप में व्यक्त करें।

प्र. 3 एन.सी.ई.आर.टी. का श्रव्य कार्यक्रम सुनें - **'डा.सालिम अली'।**

प्र. 4 अपने गृह नगर की कोई दो पर्यटन स्थलों का भ्रमण कीजिए और उसे स्थल से संबंधित समस्त जानकारी जैसे-स्थित ऐतिहासिक महत्व, धार्मिक महत्व, सामाजिक महत्व, पुरातात्विक महत्व किसी विशेष घटना से संबंध, चित्र इत्यादि के विषय में अपनी हिंदी की पुस्तिका में लिखिए।

प्र. 5 ग्रीष्म ऋतु में अवकाश के दौरान अपने घर के बरामदे या छत पर पक्षियों के पीने के लिए पानी का इंतजाम करें और प्रतिदिन उसकी देखभाल करें इस गतिविधि से संबंधित अपने अनुभवों को साप्ताहिक रूप से डायरी लेखन के रूप में अपनी हिंदी की कॉपी में लिखिए।

प्र. 6 निबंध:- (1.) पर्यावरण प्रदूषण : एक समस्या (2.) विश्व योग दिवस का महत्त्व (3.)आपदा प्रबंधन

प्र. 7 पत्र:- निरंतर बढ़ती बीमारियों पर रोष व्यक्त करते हुए स्वास्थ्य मंत्री को पत्र लिखिए ।

प्र. 8 कला समेकित परियोजना- तमिलनाडु की संस्कृति, खानपान, वेशभूषा और त्योहारों पर परियोजना तैयार करें।

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मनीषा शर्मा मनीषा

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PM SHRI KENDRIYA VIDYALAYA NO. 1 (IIT), KHARAGPUR 2025-26

CLASS - IX A, B, C &D

SCIENCE

SUMMER VACATION HOLIDAY HOMEWORK

Q1. Two particles are moving with constant speed v such that they are always at a constant distance d apart and their velocities are equal and opposite. After how much time, will they return to their initial positions?

Q2. Classify the following into osmosis/diffusion -

(a) Swelling up of a raisin on keeping in water.

(b) Spreading of virus on sneezing.

(c) Earthworms die on coming in contact with common salt.

(d) Shrinking of grapes kept in thick sugar syrup.

(e) Preserving pickles in salt.

(f) Spread the smell of cake being baked throughout the house.

(g) Aquatic animals using oxygen dissolved in water during respiration.

Q3. Water as ice has a cooling effect, whereas water as steam may cause severe burns. Explain these observations with examples.

Q4. Explain what happens to the molecular motion and the energy of 1 kg of water at 273 K when it is changed into ice at the same temperature. How is the latent heat of fusion related to the energy exchange that takes place during this change of state?

Q5.You are provided with a mixture of naphthalene and ammonium chloride by your teacher. Suggest an activity to separate them with a well labeled diagram.

Q6. Suggest an activity to show that the rate of diffusion of liquids decreases with increase in density of the liquid.

Q7. Substance 'A' has high compressibility and can be easily liquefied. It can take up the shape of any container. Predict the nature of the substance. Enlist four properties of this state of matter.

Q8. An object is sliding down an inclined plane. The velocity changes at a constant rate from 10 cm/s to 15 cm/s in 2 seconds. What is its acceleration?

Q9. A cheetah is the fastest land animal and can achieve a peak velocity of 100 km/h up to distances less than 500 m. If a cheetah spots its prey at a distance of 100 m, what is the minimum time it will take to get its prey, if the average velocity attained by it is 90 km/h?

Q10. Give reasons -

(a) A gas fills completely the vessel in which it is kept.

(b) A gas exerts pressure on the walls of the container

Q11. Can you name the two organelles we have studied that contain their own genetic material?

Q12. The brakes applied to a car produce a negative acceleration of 9 m/s^2. If the car takes 3 seconds to stop after applying brakes, calculate the distance it travels during this time.

Q13. Where do the lipids and proteins constituting the cell membrane get synthesized?

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Q14. Why is meiosis referred to as reductional division? How does meiosis bring the variation?

Q15. A ship is moving at a speed of 56 km/h. One second later, it is found to be moving at 58 km/h, what is the acceleration of the ship?

Q16. Under what condition is the magnitude of average velocity of an object equal to its average speed?

Q17. Write the functions of the following -

a. Golgi bodies

b. Endoplasmic Reticulum

c. Vacuoles

d. Lysosomes

Q18. Plot a velocity-time graph showing uniform retardation.

Q19. Where will you find more ribosomes - in cancer cells or in fat cells?

Q20. How will absence of any one of the cell organelle affect the cell's working? Explain by citing a few examples.

Q21. Activity Task - (Do it in a practical notebook)

Write an experiment on determination of the melting point of ice and the boiling point of water.

Q22. Do it in your subject enrichment file -

a. Which type of cell division is required for growth and repair of the body and which type is involved in formation of gametes? Draw the labeled diagrams of both the types of cell division.

b. Draw well labeled diagrams of the following -

A. Plant cell

B. Animal cell

c. To draw the Distance-Time and Velocity-time Graphs for bodies at rest, in uniform motion and uniformly accelerated motion.

Q23. Create a paper poster on the following topics and add Fun Facts / Did You Know? also (A small box with interesting trivia)

a. Why Ice Floats on Water – A Matter Mystery

b. Evaporation and Its Applications in Daily Life.

c. Latent Heat and How It Works

Q24. **Art-integrated Project** (to be done in a separate spiral binding file) on -
NATURAL RESOURCES OF WEST BENGAL - COMMUNITY KNOWLEDGE, FLORA AND FAUNA (LIVING, ENDANGERED AND EXTINCT SPECIES) AND CONSERVATION OF NATURAL RESOURCES IN WEST BENGAL.

Art Integrated Project should be prepared in the given order -

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I. Cover page showing project title, schools name, students name, class and section and academic session (year).

II. List of contents with page number and Index.

III. Acknowledgements: Acknowledging institution, offices and libraries visited and people who have helped.

a. Project Overview: Purpose, aim, methodology and experience while doing the project.

b. Contents with relevant headings.

c. Diagrams, charts and graphs.

d. Summary and conclusions based on the study and findings.

e. References - It should have the title, pages referred, author, publisher, year of publication and if a website, the name of the website/link.

f. Teachers evaluation sheet to be attached at the end of the project file.

PROJECT EVALUATION PROFORMA

The Proforma should be attached on the last page of the project and must include the following -

- Student's Name
- Roll. No
- Class and Section
- School name and address
- Teacher Assessment -

1. Content accuracy and originality
2. Presentation and creativity
3. Process of project competition
4. Overall remarks
5. Teacher signature
6. Students signature
7. Date of submission

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Math Pg - 1

KENDRIYA VIDYALAYA IIT KHARAGPUR
HOLIDAY HOME WORK 2025-26 CLASS IX
MATHS.

1. Find five rational numbers between 3 and 4 .
2. Find five rational numbers between 3 /5 and 4/5.
3. Express the following in the form p/ q , where p and q are integers and $q \neq 0$. (i) 0 6. (ii) 0 47 . (iii) 0 001
4. : Rationalise the denominator of 1/ 7+ 3 root2 ·
5. Represent $root9.3$. on the number line
6. Write the coefficients of x^2 in each of the following: (i) $2 + x^2 + x$
(ii) $2 - x^2 + x^3$
7. Give one example each of a binomial of degree 35, and of a monomial of degree 100.
8. Write the degree of each of the following polynomials: (i) 5x 3 + 4x 2 + 7x (ii) 4 – y 2 (iii) 5t – 7
9. Find p(0), p(1) and p(2) for each of the following polynomials: (i) p(y) = y 2 – y + 1
(ii) $p(t) = 2 + t + 2t^2 - t^3$ (iii) $p(x) = x^3$ (iv) p(x) = (x – 1) (x + 1)
10. MCQs

I0 i) $(x-2y)^3 + (2y-3z)^3 + (3z-x)^3$ is equal to

(a) (x – 2y) (2y – 3z) (3z – x) (b) 2(x – 2y) (2y – 3z) (3z – x)
(c) 3(x – 2y) (2y – 3z) (3z – x) (d) 3(x – 2y) (3z – x)

Ii (x + 1) is a factor of the polynomial

*a) $x^3 + x^2 - x + 1$ (b) $x^3 + x^2 + x + 1$
(c) $x^4 + x^3 + x^2 + 1$ (d) $x^4 + 3x^3 + 3x^2 + x + 1$

Iii If polynomial $p(x) = 3x^4 - 4x^3 - 3x - 1$ is divided by (x – 1), then remainder is

(a) 3 (b) – 4 (c) – 1 (d) p(1)

iv) The coefficient of x in the expansion of $(x + 3)^3$ is

(a) 1 (b) 9 (c) 18 (d) 27

V) Zeros of the polynomial $p(x) = (x-2)^2 - (x+2)^2$ are

(a) 2, – 2 (b) 2x (c) 0, – 2 (d) 0

VI) Factors of $x^2 + 11x + 18$ are

a) (x + 9) (x – 2) (b) (x – 9) (x – 2)
(c) (x – 9) (x + 2) (d) (x + 9) (x + 2)

vil) if (2x + 5) is a factor of $2x^2 - k$, then value of k is

(a) 2 (b) – 1 (c) 25 (d) 25/2

VIII) Given a polynomial $p(t) = t^4 - t^3 + t^2 + 6$, then p(–1) is

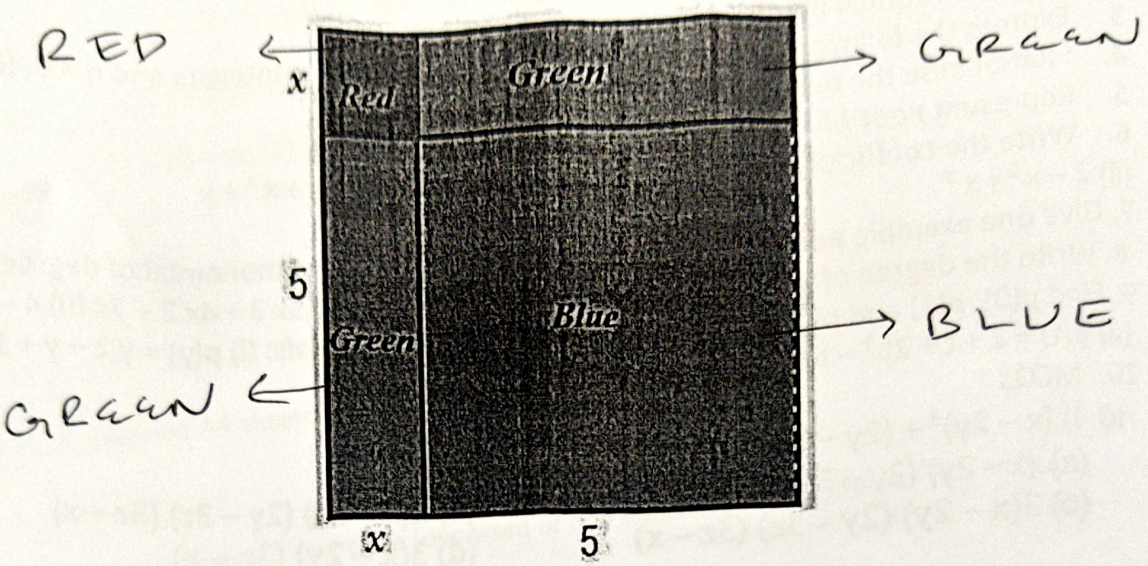
(a) 6 (b) 9 (c) 3 (d) – 1

11.If $p(x) = x^2 - 4x + 3$, evaluate: $p(2) - p(-1) + p(½)$.

12.Mahesh formed a square using four pieces of origami, as shown in the figure.

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Math (Page-2)



Based on above information answer the following questions.

(i) (a) Write the trinomial which describes the area of the given square. [1]

(b) If area of the square is given by the polynomial $x^2 - 10x + 25$; then what will be the side of the square? [1]

(ii) (a) If $p(y) = y^2 - 2y + 1$, then find the value of $p(y) + p(-y)$. [1]

(b) What is the degree of the trinomial $x^3 + 2x^2 + 3x + 4$? [1]

Expand each of the following, using suitable identities:

(i) $(x + 2y + 4z)^2$

(ii) (ii) $(2x - y + z)^2$

(iii) (iii) $(-2x + 3y + 2z)^2$

(iv) (iv) $(3a - 7b - c)^2$

(v) (v) $(-2x + 5y - 3z)^2$

Factorise: (i) $4x^2 + 9y^2 + 16z^2 + 12xy - 24yz - 16xz$

(

13. Write the following cubes in expanded form: (i) $(2x + 1)^3$ (ii) $(2a - 3b)^3$

14. Evaluate the following using suitable identities: (i) $(99)^3$ (ii) $(102)^3$ (iii) $(998)^3$

15. Factorise each of the following: (i) $8a^3 + b^3 + 12a^2b + 6ab^2$

16. (ii) $8a^3 - b^3 - 12a^2b + 6ab^2$

17. (iii) $27 - 125a^3 - 135a + 225a^2$

→ Prepare a mathematical model for Bal Vigyanik Pradarshani

→ Prepare a lay out of any space you like with mathematical propotions and angles.

PREPARED BY : S.SAHU

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PM SHRI KENDRIYA VIDYALAYA NO1 IIT KHARAGPUR

SUMMER VACATION HOLIDAY HOMEWORK 2025-26

CLASS: IX SUBJECT-SOCIAL SCIENCE

1. 1. Make a project on any one of the following disaster management topic.

(a) drought

(b) cyclone

(c) land degradation

(Do this in a project file,15-16 pages on A4 sheets.) follow the guideline given in separate file.

2. Make and write ten questions and answers of one mark (one word or one sentence) of each lesson completed.

3. Learn and revise all the completed chapters and also complete your CW and HW copy.

4. Make mind maps on completed chapters.

5. Do map practice of History and Geography.

Write the below question in a separate sheet

1. Explain the impact of the French Revolution on the life of people of French.
2. How did philosophers influence the thinking of the people of France?
3. What was Jacobin club? Who were its members? How did Jacobins contribute to carrying the French Revolution further?
4. Explain any five main features of the Constitution drafted in 1791.
5. Describe the conditions of women during the period of French Revolution.
6. Who was Robespierre? Why we call his rule as reign of terror? Explain.
7. Prepare a photo album with captioning and description of your state vs paired state for EBSB Project.

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HOLIDAY HOMEWORK

ARTIFICIAL INTELLIGENCE(Class IX)

PART A: Theory + Creative Work

1. AI Around Me – Creative Research

Make a collage or digital poster (on chart paper or using Canva) of real-life AI applications in:

- Healthcare
- Education
- Entertainment
- Transportation

➤ Add at least 2 examples from each field with pictures.

2. Draw the AI Project Cycle

Draw and explain the 5 stages of the AI Project Cycle:

- Problem Scoping
- Data Acquisition
- Data Exploration
- Modelling
- Evaluation

➤ Use your creativity—color, diagrams, and real examples.

3. Case Study – Spot the Bias

Read any one of the following:

- News article about facial recognition bias
- AI hiring tools rejecting diverse candidates

➤ Write a short 200-word paragraph:

- What happened?
- What was the bias?
- How could it be avoided?

4. Ethical Dilemma – Comic Strip

Create a comic strip/storyboard (4–6 panels) where:

- An AI robot has to make an ethical choice (e.g., saving a person vs. following rules).

➤ End with a question: "What would you do if you were the AI?"

5. My AI Dream App

Design your own AI-based mobile app idea:

- What will it do?
- What problem does it solve?
- What kind of data does it need?
- Will it have ethical risks?

PART B: Worksheet / Question Paper Practice

Answer the following in your notebook:

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