RAMA DEVI INTERNATIONAL SCHOOL SUMMER HOLIDAY HOMEWORK CLASS-IXth SESSION 2025-26



Holiday's Homework (for all subjects) must be submitted as per the mentioned dates.

05.07.2025 - Physics/ Chemistry/ /Biology 08.07.2025 - Social Studies 10.07.2025 - English 12.07.2025 - Mathematics 14.07.2025 - Hindi 16.07.2025 - Artificial Intelligence

<u>PREFACE</u>

Dear parents and students,

Summer vacation is around the corner bringing with itself a much-needed respite from hectic school days. We hope that you will thoroughly enjoy the vacations and make the most of this summer. While it is indeed important that you relax and refresh yourselves. It is also important that you exercise your minds.

Keeping this in mind, we have designed various exciting activities to keep the student engaged and active during the summer vacation. These fun project assignments would enhance learning skill help understand concepts, better and make for a great crash aimed at improving academic output.

These activities will not only help you to revise what you taught, but will also enrich your knowledge. The project will be assigned as subject enrichment activity portfolio or Art Integrated Activity.

We encourage parents to and support the students to ensure the given work is completed in time to be the best of their ability. Your support and encourage both have a use impact on your child's learning ability.

Wish you a fun field safe summer vacatio

Subject:-English (184)

Q.1 Write a descriptive paragraph on give picture. (250 words)



Q.2 Learn any three recipes and describe the process how you made them .

Q.3 *Make a neat and clean project, Topics are given below:

NOTE: Project File must contain:

- Front Page
- \cdot Acknowledgement
- Certificate
- Index
- · About Author/ Poet (Introduction)
- Theme
- Summary
- \cdot Conclusions
- Bibliography

(i) Roll no.1 to 6-APJ Abdul Kalam. (refer lesson 6 in Beehive)

(ii)Roll no.7 to 11 - Santosh Yadav. (refer Lesson 8 in Beehive)

(iii)Roll no. 12 to 16 -Maria Sharapova. (refer lesson 8 in beehive)

(iv)Roll no. 17to 21 - The Road not taken (refer lesson 1 in beehive)

(v) Roll no. 22 to 26-Bismilha Khan (refer lesson 2in beehive)

(vi)Roll no. 27 to 29 - The Lake Isle of Innisfree (refer lesson 4 in beehive)

Q.4 Portfolio -- prepare a Portfolio with the following

I.) Introduction

- ii) My strength
- iii) I Need to improve on iv)My achievement.

v) I have participated in. vi)The book I have read

ART INTEGRATED: VISUAL ART 1.

1.1.1 Study of visual resources (at home and in the surroundings) and means of creative expression Environment

Describe culture, livelihood, cloths, literacy rate and food of ARUNACHAL PRADESH

Subject: - Science

Physics (086)

Art Integration Project(1.1.1)

As per CBSE guidelines, students of Class IX have to submit an art integrated project on Physics (Roll no 01-10)

1. Roll: 01 – Power Plant in Arunachal Pradesh

2. Roll: 02 - Power Plant in Arunachal Pradesh

3. Roll: 03 - Power Plant in Arunachal Pradesh

4. Roll: 04 - Power Plant in Arunachal Pradesh

5. Roll: 05 - Wind power energy of Arunachal Pradesh

6. Roll: 06- Wind power energy of Arunachal Pradesh

7. Roll: 07- Wind power energy of Arunachal Pradesh

8. Roll: 08- Alternative forms of energy of Arunachal Pradesh.

9. Roll: 09- Alternative forms of energy of Arunachal Pradesh.

10. Roll: 10- Alternative forms of energy of Arunachal

Pradesh. Project should be submitted under the guidelines

given below:

Students need to prepare their project on A4 size paper, which should be hand written. Project should consist of minimum 20 pages.

Following content should be covered in the project

COVER PAGE:

TITLE,

ACKNOWLEDGMENT,

CERTIFICATE,

OVERVIEW,

INDEX,

DESCRIPTION WITH PHOTOGRAPHS & DIAGRAMS,

BIBLIOGRAPHY,

THANK YOU PAGE WITH A RELATED SCIENCE QUOTE

Working Model

- 1. Newton's 2nd law working model
- 2. Moment of inertia model
- 3. Types of motion working model
- 4. Balance weighing scale working model

Note: These are for reference only you can choose anyone or any other working model according to your convenience. Everyone has to prepare one working model individually.

Chemistry-

Instruction: Following work to be done in notebook.

- * Write and learn the definitions of the following terms.
 - > Tyndall effect
 - > Suspension
 - Colloidal solution
 - > Atoms
 - > Molecules
 - > compounds and mixtures

Art integrated work (1.1.8)

* Below activity to be done in A4 size coloured sheet as per the roll numbers.

- Collect the pictures of different types of consumable items, paste it on A4 size colour sheet and make a list of ingredients of the consumable items. (Roll No ______ to ___)
- Make a chart using colour for different process of physical changes in matter states and labelled it. (Roll No ____ to ___)
- * Project (Choose any one project)
 - > With the help of an earthen pot (matka), some pebbles and sand. Design a small-scale filtration plant that you could use to clean muddy water.
 - Prepare a 3D model / poster to demonstrate the movement of particles in solids, liquids and gases stage.

Here are some examples which can help you to make the posters.





Note : revise the syllabus done till date.

<u>Biology-</u>

Art integrated Activity (1.1.1)

As per CBSE guidelines, Students of class IX have to submit an Art Integrated project on Biology

1. Mineral resources of Arunachal Pradesh (Roll no.21-23)

2. Fruits and vegetables of Arunachal Pradesh (Roll no.24-26)

3. Beverages of Arunachal Pradesh (Roll no. 27-29)

Project should be submitted on A4 size paper, which should be handwritten Following content should be covered in the project

- Cover page
- Title
- Acknowledgement
- Certificate
- Index
- Description
- Photograph
- Bibliography
- Thank you page

<u>Working model</u>

*For Roll no.21-29

- 1. To make a 3d model showing Cell (prokaryotic or eukaryotic)
- 2. To make a 3d model showing Mitochondria
- 3. To make a 3d model showing Nucleus
- 4. To make a 3d model showing Animal Tissues
- 5. To make a 3d model showing Plant Tissues

You Can choose Any other working Model according to convenience

SUBJECT: - ARTIFICIAL INTELLIGENCE (417)

<u>Objective</u>: To enhance understanding of AI concepts through research, application creativity and practical learning during the holidays.

Research & Theory Based Tasks



1. What is Artificial Intelligence?

Define AI and explain its types with real-life examples.

- 2. List and explain the 3 domains of AI.
- 3. What are the ethical concerns of using AI in real life?

Write about bias, privacy, job loss, etc.

Practical/Activity Based

4. Create an AI awareness poster or infographic using Canva, MS Word or any design tool.

Topic ideas:

"AI in Everyday Life" (Roll No. 1-10)

"How Safe is AI?" (Roll No. 11-20)

"Future with AI" (Roll No. 21-29)

5. Write any minimum 15 programs using PYTHON.

Art Integrated Activity (1.1.12)

 Make a Power Point Presentation on History, Climate, Languages, Costumes, festivals, Agriculture and Cultural life of Arunachal Pradesh.

Submission Guidelines:

- Submit your work in a project file with diagrams, explanations, and examples to make your work attractive.
- Screenshots of digital work should be printed and attached to your file.
- Creativity, neatness, and originality will be appreciated!

<u>विषय हिंदी (002)</u> <u>ग्रीष्म अवकाश गृहकार्य</u> निर्देश:-

- छुट्टी का कार्य हस्तलिखित होना चाहिए।
- चित्रों, प्रयोग अपना परियोजना (प्रोजेक्ट) कार्य तैयार करते समय निम्नलिखित पहलुओं को ध्यान में रखा जाना चाहिए:-
- आपके हिंदी विषय अध्यापिका के दवारा आप को सौंपे गए विषय पर एक परियोजना(प्रोजेक्ट) बनाए।
- परियोजना (प्रोजेक्ट) A4 आकार के पृष्ठों से अधिक का नहीं होना चाहिए और इसमें शामिल होना चाहिए जांच परियोजना

स्ववृत्त लेखन

- (उपलब्ध रिक्ति के लिए स्ववृत्त लेखन)
- स्पष्ट, संपूर्ण व व्यवस्थित
- नाम, जन्मतिथि, वर्तमान पता, शैक्षणिक योग्यता, अनुभव, अभिरुचियों, आत्मकथ्य, दूरभाष आदि का उल्लेख (परीक्षा में गोपनीयता का निर्वाह अपेक्षित)
- अन्य विशेष जानकारी / योग्यता आदि
- संवाद लेखन
 - (दी गई परिस्थितियों के आधार पर संवाद लेखन)
- सीमा के भीतर एक दूसरे से जुड़े सार्थक और उद्देश्यपूर्ण संवाद
- पात्रों के अनुकूल भाषा शैली
- कोष्ठक में वक्ता के हाव-भाव का संकेत
- संवाद लेखन के अंत तक विषय/मुद्दे पर वार्ता पूरी विज्ञापन लेखन
- विज्ञापित वस्तु के विशिष्ट गुणों का उल्लेख
- आकर्षक लेखन शैली
- प्रस्तुति में नयापन, वर्तमान से जुड़ाव तथा दूसरों से भिन्नता
- विज्ञापन में आवश्यकतानुसार नारे (स्लोगन) का उपयोग
- विज्ञापन लेखन में बॉक्स, चित्र अथवा रंग का उपयोग अनिवार्य नहीं है, किंतु समय होने पर प्रस्तुति को प्रभावी बनाने के लिए इनका उपयोग किया जा सकता है।
- कोरोना वायरस पर 250 शब्दो मे अनुच्छेद लिखिए।
- एक औपचारिक और एक अनौपचारिक पत्र लिखिए।
- कबीरदास व सूरदास के जीवन परिचय व साहित्यिक परिचय लिखिए।
- कला एकीकृत परियोजनाः-[1.1.3.1]
 - अरुणाचल प्रदेश
 - स्वीकृति,
 - अरुणाचल प्रदेश का इतिहास,
 - त्यौहार, पारंपरिक पोशाकें,
 - पारंपरिक पोशाक की तस्वीरें,
 - प्रसिद्ध लोसार त्यौहार उत्सव की तस्वीर,
 - भौगोलिक स्थिति,
 - कुछ तस्वीरें जो अरुणाचल प्रदेश को खूबसूरत बनाती हैं, एक
 - अरुणाचल प्रदेश की राजनीतिक स्थिति,
 - आर्थिक स्थिति,

- जमा करने हेतु दिशानिर्देशः *
- अपनी जांच परियोजना कार्य और कलाएकीकृत कार्य साफ-सुथरे हस्तलिखित में जमा करें। प्रत्येक सबमिशन के कवर पेज पर अपना नाम, कक्षा और रोल नंबर शामिल करें।

Social Studies-(087)

1)Read Chapter 2 of both Geography and Economics and make notes of it.

Prepare 20 MCQ's from the Chapters on your own. (do this work in your respective Notebooks)

2)Learn and revise all the work done in your Notebook.

3) Mark the following on Physical Map of India and Paste in your Geography notebook.

a) The highest mountain peak of Himalayas an India.

b) A mountain pass in Sikkim.

c)A mountain pass in Arunachal Pradesh

(4) Art Integrated Project (1.1.9)

(a) Draw a poster on A4 size sheet highlighting the importance of land labour and capital in production.

(b) Illustrate non-farm activities like dairy t and manufacturing through drawings or paintings on A3 size paper.

Subject:-Mathematics

Worksheet

(Do this worksheet on A4 sheets) Chapter 1: Number Systems (15 Questions) 1. Classify the following numbers as rational or irrational: a)**√2** b) 3.1416 c) 0.5 d) √49 2. Write three irrational numbers between 1 and 2. 3. Express 0.777... in the form p/q. 4. Express 7/8 in decimal form. 5. Are all terminating decimals rational? Justify with an example. 6. Write five rational numbers between -1 and 0. 7. Represent $\sqrt{5}$ on a number line using the geometrical method. 8. Is $\sqrt{16}$ rational? Give reason. 9. Compare: Which is greater, $\int 2$ or 1.4? 10. Prove that $\sqrt{3}$ is an irrational number. 11. Express 1.272727... in the form p/q. 12. Simplify: 2^3 × 2^4 13. Simplify: 5^7 ÷ 5^3 14. Simplify: (3²)³ 15. Evaluate: 8^(2/3) Chapter 2: Polynomials (15 Questions) 16. Classify the following polynomials and state their degree: a) $4x^3 - 2x^2 + x - 7$ b) 5 c) 3x² + 4x 17. Is 1/x + 2 a polynomial? Give reason. 18. What is the degree of the zero polynomial? 19. Write a polynomial of degree 4 with 3 terms. 20. Write the coefficient of x^2 in $3x^2 - 5x + 1$. 21. Add: $(x^2 + 3x + 5) + (2x^2 - x + 4)$ 22. Subtract: $(4x^2 + 6x - 3) - (x^2 - 2x + 1)$ 23. Multiply: (x + 4)(x - 5) 24. Multiply: (2x - 3)(x + 1)25. Expand: (x - 2)^2 26. Find the zero of the linear polynomial p(x) = 3x - 627. Find the zeroes of $p(x) = x^2 - 4$ 28. Check whether x = 2 is a zero of $p(x) = x^2 - 4x + 4$ 29. If x = -1 is a zero of the polynomial p(x) = x + 1, verify it. 30. Factorize: x² + 5x + 6 Q31. Construct a square root spiral to visualize the concept of irrational numbers.

Use coloured pencils to highlight lengths like $\sqrt{2}$, $\sqrt{3}$, $\sqrt{4}$...

Note: Revise chapter 1 and 2

Art Integrated Activity

Following activities to be done as per Roll number

> Roll no. 1 to 10

Choose any 1 festival (e.g., Diwali, Eid, Christmas) and create a math poster based on it. Include:

- Shapes in decorations
- Symmetry in rangoli or Kolam
- Money calculations for budgeting festival
- shopping Make it colourful and culturally rich on chart paper.

> Roll no. 11 to 20

Create a colourful timeline of 1 important discoveries in mathematics (e.g., invention of zero, Pythagoras theorem, algebra, decimals, coordinate geometry).

- Add portraits, dates, and uses of each discovery.
- Highlight the topic connected to your Class 9 syllabus each on chart paper.
- > Roll no. 21 to 30

Make 2 optical illusion using maths concepts like parallel lines, angles, perspective, or repeating patterns on A3 sheets.

- Add a short explanation of the maths used.
- Title it creatively (e.g., "Infinite Tunnel", "Impossible Triangle").

a) **5**

b)3x² + 4x

31. Is 1/x + 2 a polynomial? Give reason.

32. What is the degree of the zero polynomial?

33. Write a polynomial of degree 4 with 3 terms.

- 34. Write the coefficient of x^2 in $3x^2 5x + 1$.
- 35. Add: $(x^2 + 3x + 5) + (2x^2 x + 4)$
- 36. Subtract: $(4x^2 + 6x 3) (x^2 2x + 1)$
- 37. Multiply: (x + 4)(x 5)
- 38. Multiply: (2x 3)(x + 1)
- 39. Expand: (x 2)²
- 40. Find the zero of the linear polynomial p(x) = 3x 6
- 41. Find the zeroes of $p(x) = x^2 4$
- 42. Check whether x = 2 is a zero of $p(x) = x^2 4x + 4$
- 43. If x = -1 is a zero of the polynomial p(x) = x + 1, verify it.
- 44. Factorize: x^2 + 5x + 6

Q31. Construct a square root spiral to visualize the concept of irrational numbers. Use coloured pencils to highlight lengths like J2, J3, J4...

Note: Revise chapter 1 and 2

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