

**ST. THOMAS SCHOOL INDIRAPURAM
HOLIDAY HOMEWORK (2024-25)
CLASS IX**



ENGLISH

Let's gear up for the post-summer break debate challenge!

- Students have to prepare the debate for the speaking activity.
- Students should be ready with arguments both supporting and opposing the topics given.
- Prepare all the topics.
- Be well-prepared to engage in a robust discussion.

Topics:

1. Ban junk food for children.
2. All should be vegetarian.
3. Video games are a reason for violent mindset.
4. social media has improved human communication.
5. Zoos should be banned.

In an A4 sheet write an article on any one topic given for the debate.

HINDI

1. 'कम करें ऊर्जा की खपत
ये है हर पीढ़ी की जरूरत
आज बिजली नहीं बचाओगे,
तो कल बल्ब कैसे जलाओगे'।

सस्ती और स्वच्छ ऊर्जा पर चित्र व स्लोगन सहित पोस्टर बनाओ।

(सफेद A4 sheet का प्रयोग करें)

2. (क) एक पतली कॉपी बनाएँ, जिसमें कोई दस हिन्दी की खबरें(एक पेज पर एक)
चिपकाकर उस खबर को अपने शब्दों में सुन्दर लेखनी (सुलेख) में लिखें।
(ख) अपनी प्रत्येक दिन की वास्तविक दिनचर्या को दस पेज में लिखें।

MATHS

AIL (ART INTEGRATED LEARNING)

STATES: ARUNACHAL PRADESH & UTTAR PRADESH

Art integrated learning, a key component of CBSE's "EK BHARAT SHRESHTHA BHARAT" initiative, brings Indian art and culture into the classroom. By engaging in creative activities, students explore their cultural heritage while developing their creativity and learning in a more holistic way. It's a fun and meaningful approach to education that connects students with India's rich cultural traditions.

Arunachal Pradesh, in northeast India, is called the "Land of the Dawn-Lit Mountains" for its stunning landscapes. It's culturally diverse, home to over 26 major tribes, and boasts rich biodiversity. Adventure seekers flock here for trekking and rafting.

Uttar Pradesh, India's most populous state, is steeped in history and culture. Known as the "Heartland of India," it's dotted with ancient cities like Varanasi and Agra, home to the Taj Mahal. It's famous for its festivals, cuisine, and traditional arts.

THEME: Explore Math through State Cultures and in Architecture

(i) Create Cultural Jewellery

- Make a piece of jewellery inspired by Arunachal Pradesh's culture, using sustainable materials.
- Write about how Math is used in jewellery making.
- Document your process with photos and a brief reflection on what you enjoyed most.

(ii) Explore Math in Architecture

- Choose a famous building from Uttar Pradesh and study its Mathematical elements.
- Explain the Math concepts found in the Architecture.
- Describe a real-life situation where Math is used in Uttar Pradesh's culture.

By engaging in hands-on activities, you will discover the Mathematical beauty of these states' cultures.

SUBMISSION FORMAT

PAGE 1 NAME, CLASS SEC, SCHOOL NAME, TOPIC

PAGE 2 INDEX

PAGE 3 - PAGE 8

WRITE UP OF THE REQUIRED TOPICS WITH DATA AND RELATED PICS.

PAGE 9 CONCLUSION

PAGE 10 REFERENCES

SCIENCE

Limestone caves in Arunachal Pradesh

- **Chemical composition of Limestone**
- **Elements present in Limestone**
- **Chemical formula of Limestone**
- **Cations and anions present in Limestone**



- **Analysis of rainfall and temperature trends in North-East India [Arunachal Pradesh] Rate of Evaporation study**

OR

- **Bamboos of Arunachal pradesh**
Chemical, Physical and Mechanical Properties of Bamboo

Chemical composition of Bamboo

Remember to make your project informative and interesting.

Use colours, pictures, Illustrations wherever required

- Draw related pictures using water colour, crayons or colour pencil

CHEMISTRY

CASE STUDY QUESTIONS

Q1 .In certain investigatory project 150 ml of water is taken in each of the four beakers A , B , C and D. Beaker A and B are maintained at temperature 25⁰C while C and D are maintained at temperature 65⁰C. Four crystals of copper sulphate of approximately same mass (say 2g) are taken and two of them are ground into powder form. Now, crystals are added in beaker A and C while powdered form of the salt are added in beaker B and D respectively.

Mark the correct answer in each of the following questions:

- (i) In which beaker the intermixing will be the quickest?
- a) C b) D c) A d)B

(ii) Rate of intermixing will be:

- a) Same in A and C b) Same in A and B
c) Quicker in B than in A d) Slower in C as compared to that in A

(iii) Colour of solution after intermixing is:

- a) Greenish b) Bluish c) Pinkish d) Violet

(iv) Phenomenon responsible for intermixing is called

- a) Diffusion of solid into liquid b) Diffusion of liquid into solid
c) Sedimentation d) Freezing

(v) Which of the following evidence is not provided by the experimental activity?

- a) Particles of matter are in a state of motion.
b) Particle motion increases with rise in temperature
c) Particles of matter are stationary
d) There are empty spaces between the molecules.

PHYSICS

Chapter- Motion Case study based question

Q2. A body is said to have uniform motion, if it travels equal distances in equal intervals of time, no matter how small these intervals may be. The distance travelled by an object in uniform motion increases linearly. A train travels from one station to the next. The driver of train A starts from rest at time $t = 0$ and accelerates uniformly for the first 20 s. At time $t = 20$ s, train reaches its top speed of 25 ms^{-1} , then travels at this speed for further 30 s before decelerating uniformly to rest. Total time for the journey of train A is 60 s. Another train B is travelling in the parallel of train A with zero initial speed at $t = 0$ and then accelerates uniformly for first 10 s. At time $t = 10$ s it reaches its top speed of 30 ms^{-1} , then travels at this speed for further 20 s, before decelerating uniformly to rest. Total time for the journey of train B is 80 s.

(i) What is the deceleration of the train A as it comes to rest?

- a) 25 ms^{-2} b) 2.5 ms^{-2} c) 2 ms^{-2} d) 5 ms^{-2}

(ii) When train A travels at a constant speed, how far it will travel in **30 sec**?

a) 0 m b) 25 m c) 750 m d) 250 m

(iii) In which time interval, speed of train B is constant?

a) 0 sec to 10 sec b) 10 sec to 20 sec. c) 10 sec to 80 sec d) 10 sec to 30 sec

iv) Draw velocity-time graph for train A.

v) Draw velocity-time graph for train B.

BIOLOGY

Read the following paragraph and answer the given questions :

Components of Prokaryotic Cells

A generation ago, scientists believed that membranous droplets formed spontaneously. These membranous droplets, called protocells, were presumed to be the first cells. Modern scientists

believe, however, that protocells do not carry any genetic information and lack the internal organisation of cells. Thus the protocell perspective is not widely accepted. Several groups of scientists are currently investigating the synthesis of polypeptides and short nucleic acids on the surface of clay. The origin of the first cells remains a mystery. All cells share four common components : (1) a plasma membrane, an outer covering that separates the cell's interior from its surrounding environment; (2) cytoplasm, consisting of a jelly-like region within the cell in which other cellular components are found; (3) DNA, the genetic material of the cell; and (4) ribosomes, particles that synthesize proteins. However, prokaryotes differ from eukaryotic cells in several ways.

(i) Bacteria do not have chloroplast but some bacteria are photoautotrophic in nature and

perform photosynthesis. Which part of bacterial cell perform this ?

(ii) How is bacterial cell different from an onion peel cell?

(iii) Differentiate between the nuclear region of a bacterial cell and an onion cell.

Or

Draw a well-labelled diagram of prokaryotic cell.

SCIENCE AIL Activities

Sub: Physics

(To be done by students of each section from Roll no 1 to 13)

Arunachal is a mountainous region in the northeastern part of the Indian Subcontinent. It mostly consists of deep valleys covered by highland plateaus and hills. The state has huge potential for power generation.

Make a collage depicting existing power plants in the state of Arunachal Pradesh with their location.



CHEMISTRY

(To be done by students of each section from Roll no 14 to 26)

Limestone caves in Meghalaya

- **Chemical composition of Limestone**
- **Elements present in Limestone**
- **Chemical formula of Limestone**
- **Cations and anions present in Limestone**



- **[Analysis of rainfall and temperature trends in Arunachal Pradesh]**

[Remember to make your project informative and interesting. Use colours, pictures, illustrations wherever required]

- Draw related pictures using water colour, crayons or colour pencil]

BIOLOGY

(To be done by students of each section from Roll no 26 onwards)



“Pakhui Wildlife sanctuary in Western Arunachal Pradesh has recorded 296 bird species from the area”

Highlight about the most found species of birds. Paste colourful pictures of it to enrich your writeup. Write about their adaptations. (Use A4 Size sheet to make it colourful)

SOCIAL SCIENCE

Subject Enrichment Activity (5 marks)

Every student has to compulsorily undertake one project on the topics according to the roll number given in the table.

2. Objective: The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from interdisciplinary perspective. It should also help in enhancing the Life Skills of the students.

3. Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report. If required, students may use different primary and secondary resources to prepare the project.

4. If possible, *different forms of Art* may be integrated in the project work.

5. Use eco-friendly products without incurring too much expenditure.

8. The Project Report should be *handwritten by the students themselves* on A4 size sheets.

PATTERN OF THE PROJECT FILE:

1. Cover page - Project title, school name, session, class, subject, name of the student

2. First page-Project title, subject, session, name of the student, class/ section

3. Acknowledgment- Acknowledging the individuals/institutions who helped in making the project

4. Index- With page numbers

5. Introduction- Purpose and aim of the project

6. Content- Present material/ data/ statistics with related pictures, pie charts, bar graphs, cartoons, slogans, maps etc. **on the left side of the file** to make a quality project.

7. **Conclusion-** Draw a relevant conclusion by mentioning the learning outcome and suggestions (if any).

8. **Bibliography-** Mention name of the book, newspaper, magazine, website, author, publisher.

(PROJECT SHOULD BE SUMMED UP IN 10-15 PAGES)

Make a Project File on the given topic as per the given format.

<p><u>GEOGRAPHY</u></p>	<p>TOPIC NATURAL DISASTER EARTH QUAKE IN INDIA</p> <p>Roll Nos.</p> <p>9 A 1-10 9 B 1-10 9 C 1-10 9 D 1-10 9 E 1-10</p>	<p><i>INTRODUCTION</i></p> <ul style="list-style-type: none"> ❖ Define earth quake ❖ How it occurs? <p><i>CONTENT</i></p> <ul style="list-style-type: none"> ❖ Earth quake that happened in India ❖ date people affected ❖ places affected ❖ economic loss ❖ how government helped economically socially <p><i>CAUSES</i></p> <ul style="list-style-type: none"> ❖ what are the major causes? <p><i>PREVENTION AND SAFTY MEASURES</i></p> <ul style="list-style-type: none"> ❖ preventive measures ❖ safety measures <p><i>CONCLUSION</i></p> <p>A report of the whole project</p> <p><i>BIBLIOGRAPHY</i></p>
--------------------------------	--	---

<p>FLOODS IN INDIA</p> <p>9 A 11-20</p> <p>9 B 11-20</p> <p>9 C 11-20</p> <p>9 D 11-20</p> <p>9 E 11-20</p>	<p>INTRODUCTION</p> <ul style="list-style-type: none"> ❖ Define Floods ❖ How it occurs? <p>CONTENT</p> <ul style="list-style-type: none"> ❖ Flood that happened in India ❖ date people affected ❖ places affected ❖ economic loss ❖ how government helped economically socially <p>CAUSES</p> <ul style="list-style-type: none"> ❖ what are the major causes? <p>PREVENTION AND SAFTY MEASURES</p> <ul style="list-style-type: none"> ❖ preventive measures ❖ safety measures <p>CONCLUSION</p> <p>A report of the whole project</p> <p>BIBLIOGRAPHY</p>
<p>LANDSLIDES IN INDIA</p> <p>9 A 21-30</p> <p>9 B 21-30</p> <p>9 C 21-30</p> <p>9 D 21-30</p> <p>9 E 21-30</p>	<p>INTRODUCTION</p> <ul style="list-style-type: none"> ❖ Define Landslide ❖ How it occurs? <p>CONTENT</p> <ul style="list-style-type: none"> ❖ Landslide that happened in India ❖ date people affected ❖ places affected ❖ economic loss ❖ how government helped economically socially <p>CAUSES</p> <ul style="list-style-type: none"> ❖ what are the major causes? <p>PREVENTION AND SAFTY MEASURES</p> <ul style="list-style-type: none"> ❖ preventive measures ❖ safety measures <p>CONCLUSION</p> <p>A report of the whole project</p> <p>BIBLIOGRAPHY</p>

	<p>AVALANCHES IN INDIA</p> <p>9 A 31-38 9 B 31-38 9 C 31-40 9 D 31-40 9 E 31-39</p>	<p>INTRODUCTION</p> <ul style="list-style-type: none"> ❖ Define Avalanches ❖ How it occurs? <p>CONTENT</p> <ul style="list-style-type: none"> ❖ Avalanches that happened in India ❖ date people affected ❖ places affected ❖ economic loss ❖ how government helped economically socially <p>CAUSES</p> <ul style="list-style-type: none"> ❖ what are the major causes? <p>PREVENTION AND SAFTY MEASURES</p> <ul style="list-style-type: none"> ❖ preventive measures ❖ safety measures <p>CONCLUSION</p> <p>A report of the whole project</p> <p>BIBLIOGRAPHY</p>
--	--	---

SANSKRIT

<p>1-सोलर ऊर्जा से सम्बन्धित एक चित्र बनाएँ तथा उसकी विशेषताओं का वर्णन संस्कृत-भाषा में पाँच वाक्य लिखकर करें। (सफेद रंग के ए-4 साइज शीट पर करें।)</p> <p>2-‘मम विद्यालयः’ इस पर संस्कृत-भाषा में एक अनुच्छेद लिखें। (संस्कृत नोटबुक में)</p> <p>3-पढ़ाया हुआ याद करें।</p>
--

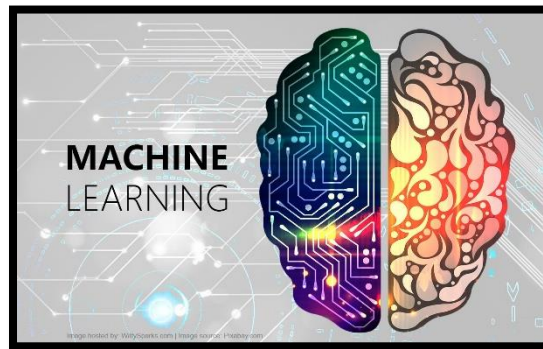
INFORMATION TECHNOLOGY/ ARTIFICIAL INTELLIGENCE

On A4 size sheet, write one computer related term starting with the first letter of your name. Define that term and paste the picture related to it.

For ex - Name - Minal Gupta

M for Machine learning

Definition - Machine learning is a subfield of artificial intelligence that uses algorithms to create models that enable machines to perform tasks that are usually only possible for humans.



Note: Computer Practical File work will be uploaded on Edunext for both Information Technology/Artificial Intelligence .

Kindly complete your Practical File work.

INTRODUCTION TO FINANCIAL MARKETS

Make a project on the following:

- 1. Money: origin, types and characteristics in assignment**
- 2. Do all the questions of unit 1 in your notebook**
- 3. GIVE A PICTORIAL ACCOUNT OF EVOLUTION OF MONEY GIVING ONE EXAMPLE AT EACH STAGE IN ASSIGNMENT**
- 4. GIVE A PICTORIAL PRESENTATION ON ALL THE SYMBOLS OF COIN IN ASSIGNMENT.**

FRENCH

1) Your friend is in Paris enjoying her/his summer vacations, write the dialogues of you two in french (15 dialogues)

Conversation téléphonique.

2) In your notebook write your daily routine (15 sentences) decorate the page as well.

GERMAN

Q1) Write one sentence using these Verb and also learn the meaning

1. gearbeitet - worked
2. geantwortet - answered
3. gebaut - built
4. bekommen - received
5. besucht - visited
6. gebraucht - needed
7. gedankt - thanked
8. gedeckt - covered
9. erklärt - explained
10. erzählt - told/narrated
11. gefragt - asked
12. geglaubt - believed
13. gehört - heard
14. gekauft - bought
15. gekocht - cooked
16. gelacht - laughed
17. gelebt - lived
18. gelernt - learned
19. geliebt - loved
20. gemacht - made/done
21. geöffnet - opened
22. geredet - talked
23. geregnet - rained
24. gereist - traveled
25. gesagt - said
26. gesammelt - collected
27. gespielt - played
28. getanzt - danced
29. gewohnt - lived/resided
30. gewünscht - wished
31. gebadet - bathed

32. **begonnen** - begun
33. **beobachtet** - observed
34. **beraten** - advised
35. **besessen** - owned
36. **bewundert** - admired
37. **geblüht** - bloomed
38. **gedruckt** - printed
39. **erreicht** - reached
40. **gefeiert** – celebrated

Q2) Learn these word meaning

1. **Papier** - paper
2. **Heft** - notebook
3. **Rucksack** - backpack
4. **Schuhe** - shoes
5. **Hemd** - shirt
6. **Hose** - pants
7. **Jacke** - jacket
8. **Mantel** - coat
9. **Kleid** - dress
10. **Rock** - skirt
11. **Socken** - socks
12. **Mütze** - cap
13. **Hut** - hat
14. **Brille** - glasses
15. **Uhr** - watch
16. **Schmuck** - jewelry
17. **Ring** - ring
18. **Kette** - necklace
19. **Armband** - bracelet
20. **Ohrring** - earring
21. **Geld** - money
22. **Kreditkarte** - credit card
23. **Bank** - bank
24. **Supermarkt** - supermarket
25. **Geschäft** - store
26. **Markt** - market
27. **Restaurant** - restaurant
28. **Café** - cafe
29. **Kino** - cinema
30. **Theater** - theater

31. **Museum** - museum
32. **Park** - park
33. **Spielplatz** - playground
34. **Schwimmbad** - swimming pool
35. **Strand** - beach
36. **Meer** - sea
37. **Ozean** - ocean
38. **Insel** - island
39. **Wüste** - desert
40. **Land** - country
41. **Staat** - state
42. **Stadt** - city
43. **Dorf** - village
44. **Hauptstadt** - capital
45. **Regierung** - government
46. **Polizei** - police
47. **Krankenhaus** - hospital
48. **Arzt** - doctor
49. **Denkweise** - mindset
50. **Eigenschaft** - characteristic
51. **Einfluss** - influence
52. **Einstellung** - attitude
53. **Entdeckung** - discovery
54. **Entfernung** - distance
55. **Erfahrung** - experience
56. **Erinnerung** - memory
57. **Erlaubnis** - permission
58. **Erleichterung** - relief
59. **Ernährung** - nutrition
60. **Erwartung** - expectation
61. **Erziehung** - upbringing
62. **Fähigkeit** - ability
63. **Fortschritt** - progress
64. **Geduld** - patience
65. **Gelegenheit** - opportunity
66. **Geschwindigkeit** - speed
67. **Gesundheit** - health
68. **Gleichgewicht** - balance
69. **Grenze** - border
70. **Heirat** - marriage
71. **Herausforderung** - challenge
72. **Hoffnung** - hope

- 73. **Konkurrenz** - competition
- 74. **Kreativität** - creativity
- 75. **Kultur** - culture
- 76. **Lösung** - solution
- 77. **Loyalität** - loyalty
- 78. **Meinung** - opinion
- 79. **Möglichkeit** - possibility
- 80. **Nachricht** - news/message
- 81. **Naturwissenschaft** - natural science
- 82. **Notwendigkeit** - necessity
- 83. **Nützlichkeit** - usefulness
- 84. **Öffentlichkeit** - public
- 85. **Pflicht** - duty
- 86. **Rechnung** - invoice/bill
- 87. **Reise** - journey

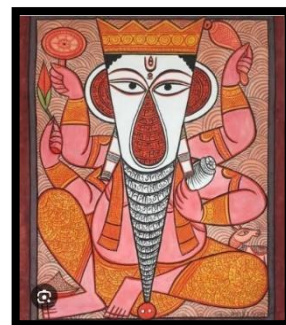
Q3) Write 300 words to describe your vacation plans and day to day activity

ART/CRAFT

Need to make Pattachitra Painting

Size should be A3 size minimum.

Giving some reference pics only, u can google more typing " Easy Pattachitra Painting". Use paint only.



LIBRARY

Vacation Time ! Time to rejoice and rejuvenate !. This is also the time to put on your creative hats. So let your finger dance around with ink pen, paper, colour, your mind be filled with imagination.

“Reading is essential for all those who seek to rise above the ordinary.”

- 1) **Read any classic novel and Read Newspaper Daily,**
- 2) **Some suggested Author –**
Ruskin Bond
Sudha Murty
Enid Blyton
Premchand
William Shakespeare

ACTIVITIES:

- 1) ‘BE AN AUTHOR’ you are required to write your own story book in English and Hindi. Exhibit your creativity in making caricatures or Pictures according to your story. Decorate your book with an appealing Book Cover.
- 2) Make a ‘**WISHLIST**’ of books that you want to read. 5 Hindi books, 5 English Books.
- 3) Make a **V shaped** desktop plate with library quotes (refer to the picture attached)

