

# St. Andrews Scots Sr. Sec. School

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Summer Holiday Homework , Session 2024-25

Class: IX

## Summer Holiday Homework

Session 2024-25

Class IX

Learning is the beginning of wealth.  
Learning is the beginning of health.  
Learning is the beginning spirituality.  
Searching and learning is where  
the miracle process all begins.

---Jim Rohn



## GENERAL INSTRUCTIONS

1. Dear students, you have to compile work which has been done till now in your school notebook/registers. Either pen down or paste the printed worksheet in your notebooks/registers.
2. Maintain your school notebook/register properly. Whatever work or worksheet has been done in the class needs to be pasted or stapled in school notebook only. Your notebook will be accessed out of 5 marks for each subject.
3. Do your work neatly; neatness of work will be highly appreciated.  
Your holiday homework carries marks and it is compulsory for all. Submit your holiday homework ontime after the vacation.



# ENGLISH

## READING:

### 1. Read Gulliver's Travel by Jonathan Swift (Class IX as per CBSE syllabus).

Answer the following questions based on your reading:

1. Name and author of the book.
2. What was the book about? (Answer in 30-40 words)
3. What did you like about the book? (Answer in 30-40 words)
4. What was your favourite part of the book? (Answer in 30-40 words)
5. Would you recommend this book to your friend? (Answer in Yes/No)

## GRAMMAR:

### 1. 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.

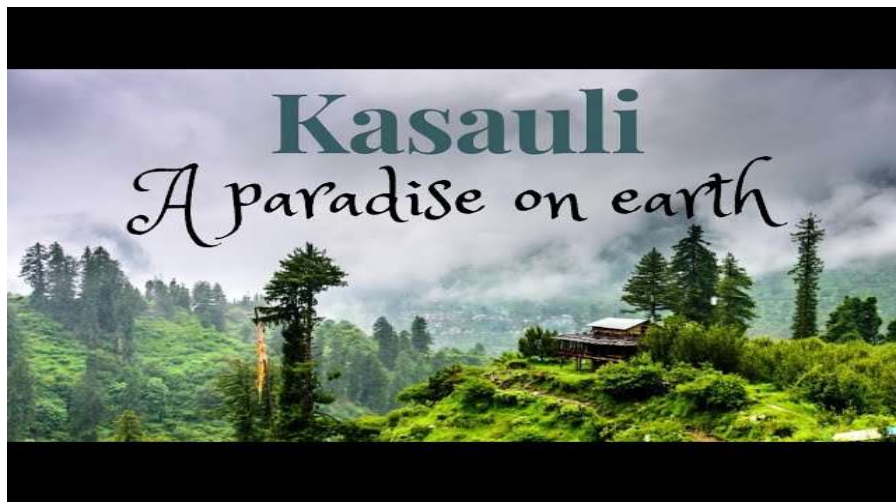
ERROR	CORRECTION

## 2. 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:

1. Write an E-mail to your friend Kavya telling her about your summer vacation plan.
2. "People play a very important role in our lives". Write a descriptive paragraph in about 100-120 words on any one person and show how he/she has been a very special influence in your life.
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:

- 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) "Firm determination and strong will-power can achieve even the impossible." How does this statement prove true in case of Chuck Hooper?
- Q4) "All they knew was that their new neighbour walked like a struggling mechanical giant and that he was always pulled by a rampageous dog."

- a) Whom does 'they' stand for?
- b) Who walked like a struggling giant and why?
- c) What does the word “rampageous mean”.

Q5) *I slip, I slide, I gloom, I glance,  
Among my skimming swallows;  
I make the netted sunbeam dance  
Against my sandy shallows.*

- a) Identify the figure of speech in the first two lines.
- b) The sandy shallows indicate that the brook is:
  - (i) On the last leg of her journey
  - (ii) Drying up due to heat
  - (iii) Filled with sediments
  - (iv) Flowing on sandy bed
- c) ‘The netted sunbeam dance’ refer to \_\_\_\_\_.

Q6) How is Brook a symbol of life? Quote the symbol of parallelism between man’s life and the Brook.

Q7) Why has the poet’s choice ‘made all the difference’ in his life?

Q8) *Two roads diverged in a yellow wood,  
And sorry I could not travel both  
And be one traveler, long I stood  
And looked down one as far as I could  
To where it bent in the undergrowth;”*

- a) Why does the poet feel sorry?
  - A) The two roads had diverged.
  - B) He could not travel on both the roads.
  - C) He felt lonely.
  - D) He had to stand there for too long.
- b) Why could he not travel both the roads?
- c) Which poetic devices have been used in the above extract?

**PROJECT WORK:**

1. A) Make a project on Andaman and Nicobar Islands showing its culture, tradition and lifestyle along with photographs. (Roll no 1-23)



B) Make a project on Lakshadweep Islands showing its culture, tradition and lifestyle along with photographs. (Roll no 24 onwards)



2. A) Make a creative home décor item using waste material concerning the Union Territory of Andaman and Nicobar Islands. (Roll no 1-23)

B) Design or create a souvenir related to Lakshadweep Islands. (Roll no 24 onwards)

3. Compose a poem or write a short descriptive paragraph using similes and colourful expressions. Choose one of these themes: waves, stars and moon, rocks, sunset or sunrise. (Refer to UNIT-2 of MCB)

4. Research your topic by collecting relevant articles from print and electronic media (like National Geographic). Make a project on following topics:

(Refer to page no: 66,67 UNIT-3 of MCB)

- SOLAR MISSION (Roll no 1-7)
- ENERGY EFFICIENCY (Roll no 8-14)
- SUSTAINABLE HABITAT (Roll no 15-21)
- WATER MISSION (Roll no 22-28)
- SUSTAINING HIMALAYAS (Roll no 29-35)
- GREEN INDIA (Roll no 36-42)
- SUSTAINABLE AGRICULTURE (Roll no 42-50)

## HINDI

- 'व्यक्ति की पहचान उसकी पोशाक से होती है'- इस विषय के पक्ष तथा विपक्ष में अपने विचार प्रस्तुत कीजिए।
- आप अपनी छोटी बहन/भाई को समय का सदुपयोग बताते हुए तथा टाइम टेबल के अनुसार अध्ययन करने के लिए सुझाव देते हुए पत्र लिखिए।
- आप छात्रावास में रहते हैं अतःमां के हाथों से बने खाने को याद करते हुए अपनी माता जी को पत्र लिखिए।
- निम्नलिखित विषयों पर अनुच्छेद लिखिए:-  
(क) बदलती दुनिया में पीछे छूटते जीवन मूल्य  
संकेत बिंदु -  
संसार परिवर्तनशील

बदलाव का प्रभाव  
खोते नैतिक मूल्य

(ख) विज्ञापनों का प्रभाव  
संकेत बिंदु  
विज्ञापनों का बोलबाला  
विज्ञापन के लाभ हानियां  
विज्ञापनों का हमारी जेब पर प्रभाव

5- दिल्ली व अंडमान निकोबार की संस्कृति में तुलना करते हुए एक आकर्षक लिखित वर्णन तैयार कीजिए।

6- दिल्ली व अंडमान निकोबार के लोकगीत व लोकनृत्यों के चित्र सहित नाम लिखकर एक स्कैपबुक तैयार कीजिए।

**नोट-** कक्षा में करवाया गया कार्य याद भी करो।

## MATHS

**Solve the following worksheet in your mathematics register:**

**Q1.** Find the value of each of the following:

a)  $6^{1/4}$                       b)  $625^{-3/4}$                       c)  $2\sqrt{3} + 8\sqrt{18}$                       d)  $15\sqrt{6} + \sqrt{216}$   
e)  $5^{3/2} \times 7^{3/2}$                       f)  $\sqrt{162} \div \sqrt{2}$                       g)  $(1+\sqrt{2}) / (1-\sqrt{2})$

**Q2.** Simplify the below expression:

a)  $\frac{1+\sqrt{2}}{1-\sqrt{3}} + \frac{1-\sqrt{2}}{1+\sqrt{3}}$                       b)  $\frac{5+\sqrt{2}}{5-\sqrt{2}} + \frac{5-\sqrt{2}}{5+\sqrt{2}}$                       c)  $\frac{1}{1-\sqrt{2}}$

**Q3.** Find the value of a and b such that

$$\frac{5+\sqrt{3}}{7+2\sqrt{3}} = a-b\sqrt{3}$$

**Q4.** Express the following in the form of  $\frac{p}{q}$ , where p and q integers and  $q \neq 0$ :

(i) 3.222...                      ii) 18.4848...

**Q5.** If  $x = \frac{5-\sqrt{21}}{2}$ , prove that

$$(x^3 + \frac{1}{x^3}) - 5(x^2 + \frac{1}{x^2}) + (x + \frac{1}{x}) = 0$$

**Q6.** If  $5^{x-2} \times 3^{2x-3} = 135$ , find the value of x.

**Q7.** Represent  $\sqrt{2}$ ,  $\sqrt{3}$  and  $\sqrt{5}$  on number line.

**Q8.** Evaluate:  $32^{\frac{1}{5}} + (-7^0) + 64^{\frac{1}{2}}$

**Q9.** Find two rational and two irrational number between  $\sqrt{2}$  and  $\sqrt{3}$ .

Q10. If  $p = \frac{3-\sqrt{5}}{3+\sqrt{5}}$  and  $q = \frac{3+\sqrt{5}}{3-\sqrt{5}}$ , find the value of  $p^2 + q^2$

Q11. If  $2^x \times 4^x = 8^{\frac{1}{3}} \times 32^{\frac{1}{5}}$ , then find the value of  $x$ .

Q12. Find the remainder when  $x^3 + x^2 + x + 1$  is divided by  $x - 12$  using remainder theorem.

Q13. If  $p(x) = x^2 - 2\sqrt{2}x + 1$ , then find the value of  $p(2\sqrt{2})$

Q14. Find the value of  $m$ , if  $x + 4$  is a factor of the polynomial  $x^2 + 3x + m$ .

Q15. Find the common factor in the quadratic polynomials  $x^2 + 8x + 15$  and  $x^2 + 3x - 10$ .

Q16. If  $x + 1/x = 7$ , then find the value of  $x^3 + 1/x^3$

Q17. Show that  $p - 1$  is a factor of  $p^{10} + p^8 + p^6 - p^4 - p^2 - 1$ .

Q18. If  $3x + 2y = 12$  and  $xy = 6$ , find the value of  $27x^3 + 8y^3$

Q19. Factorise:

(a)  $4x^2 + 9y^2 + 16z^2 + 12xy - 24yz - 16xz$ .

(b)  $1 - 2ab - (a^2 + b^2)$ .

(c)

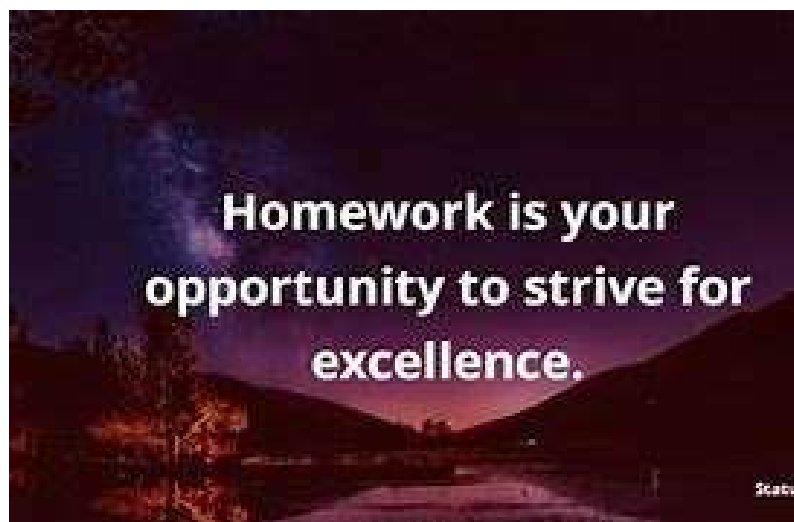
$$27a^3 + \frac{1}{64b^3} + \frac{27a^2}{4b} + \frac{9a}{16b^2}$$

Q20. What are the possible expressions for the dimensions of a cuboid whose volume is given below?

$$\text{Volume} = 12ky^2 + 8ky - 20k.$$

### ACTIVITIES:

Do activities 1,3 and 4 in your mathematics lab manual





# SCIENCE

## INSTRUCTIONS:

- Do the Worksheet in your respective subject register.
- Do the project in a project file.
- Complete the chapters done in class.
- Revise all the work done in class.

### Part I

Make a portfolio on the topic “Natural Resources”.

The portfolio should include the following:-

- Clear, related and coloured pictures
- Usage of pictures is compulsory for the activities.
- Minimum 8 -10 pages.
- The activities must be done in the project file itself.

### Part II

Do the worksheet given below:

## WORKSHEET

### BIOLOGY

- Q1. Where are proteins synthesised inside the cell?
- Q2. What would happen if the plasma membrane ruptures or breaks down?
- Q3. Write short notes on:-
- Ribosomes
  - Lysosomes
- Q4. What is the difference between rough endoplasmic reticulum and smooth endoplasmic reticulum?
- Q5. Draw a well labelled diagram of Animal cell.

### PHYSICS

- Q1. A car moving at 36 km/h, accelerates and covers a distance of 24 m. If the final velocity of the car is 54 km/h, calculate (a) the acceleration of the car and (b) the time for which the car was accelerating.
- Q2. A car travels a certain distance from A to B with a speed of 60 km h<sup>-1</sup> and then returns to the starting point with a speed of 40 km h<sup>-1</sup>. Find the average speed and average velocity of the car.
- Q3. A circular cycle track has a circumference of 314 m with AB as one of its diameters. A cyclist travels from A to B along the circular path with a velocity of constant magnitude 15.7 m/s. Find:
- a) The distance moved by the cyclist.
  - b) The displacement of the cyclist if AB represents north-south direction.
  - c) The average velocity of the cyclist.
- Q4. Explain the terms uniform motion and non-uniform motion with examples
- Q5. Distinguish between distance and displacement.

## CHEMISTRY

- Q1. Why is diffusion slower in liquids than gases?
- Q2. Give reasons:
- Naphthalene balls disappear with time without leaving any solid.
  - We can get the smell of perfume sitting several metres away.
  - Water at room temperature is a liquid.
  - An iron almirah is a solid at room temperature.
- Q3. What produces more severe burns, boiling water or steam. Why?
- Q4. Why does temperature remains constant during melting and boiling?
- Q5. What do you understand by the term sublimation?
- Q6. Convert the following temperature to Celsius scale:
- 400 K
  - 373 K
- Q7. What is the physical state of water at 100 degree Celsius.
- Q8. What is the name of rigid form of matter?
- Q9. Gases exert pressure on the walls of the container? Give reason.
- Q10. Give name of two substances which are sublimable at room temperature.

## SOCIAL SCIENCE

### INSTRUCTIONS:

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

- Q1) Make a project file on the topic of **Forest Society and Colonialism** in which you have to :-
- Compare the forest situations prevailed in the pre- colonial, colonial and post- colonial era.
  - Evaluate the growth & role of commercial forestry in different types of Vegetation.
  - Analyze the reasons for rebellions at forest areas of South East-Asia with specification to JAVA
  - To defend the role of government and the local communities in protecting the forest cover.
  - Clear, related and coloured pictures
  - Usage of pictures is compulsory for the activities.
  - Minimum 8 -10 pages.
  - The activities must be done in the project file itself.
- Q2) On the Political map of France, mark the following places:  
**Bordeaux, Nantes, Paris, Marseillies**
- Q3) Do the worksheet given below:

### WORKSHEET

- Q1. How does India occupy an important strategic position in South Asia?
- Q2. How has the long coastline been beneficial to India?
- Q3. How did France become a constitutional monarchy?

- Q4. How was triangular slave trade carried on during 18<sup>th</sup> and 19<sup>th</sup> century?  
Q5. What laws did the revolutionary government introduce to improve the lives of women?  
Q6. What problems do farm labourers face in terms of employment?  
Q7. How do the large farmers utilize surplus farm products to arrange for the capital needed for farming?  
Q8. Explain the term physical capital. Mention its different types with examples.  
Q9. How does democracy provide a platform to deal with differences and conflict?  
Q10. What are the features of a good democracy?

## SANSKRIT

प्रश्न 1- हरि, गुरु, मातृ, फल, किम् (तीनों लिंगों में) शब्द रूप लिखिए तथा याद कीजिए।

प्रश्न 2- नम्, अस्, गम्, कृ, नी, धातु रूप (लट्, लृट्, लङ्, लोट्, विधिलिङ्) पांचो लकार में लिखिए तथा याद कीजिए।

प्रश्न 3- पत्र लेखनम् - पत्र संख्या 6, 8, 10, 15, 25(Together with) से A-4 साइज़ शीट पर लिखकर अभ्यास कीजिए।

प्रश्न 4- पंच चित्राधारितं सरल संस्कृते पंच वाक्यानि लिखत। (A-4 साइज़ शीट पर)

प्रश्न 5- सावधिक परीक्षा (P.T. 1) पाठ्यक्रम याद कीजिए।

प्रश्न 6- अव्यय पदानि पृष्ठ संख्या 133,136,137,138 (Together with) से अभ्यास कीजिए।

नोट : (1). प्रश्न 1,2, उत्तर पुस्तिका (Notebook) में कीजिए।

(2). प्रश्न 3, 4 (A-4 साइज़ शीट पर) कीजिए।

(3). प्रश्न 6 (Together with) में अभ्यास कीजिए।

## ARTIFICIAL INTELLIGENCE

**Q1:** Identify and describe three AI technologies used in different fields (e.g., healthcare, education, transportation). Discuss how these technologies improve efficiency and productivity.

**Q2:** Research and summarize an example of how AI is being used in healthcare. Mention the benefits and potential challenges.

**Q3:** How do you see the modern, innovative technologies used to develop the city of the future according to the smart city concept?

**Q4:** Case Study - AI Project Cycle in Action  
Choose a Real-World AI Project

Select an AI project (e.g., image recognition, natural language processing, predictive analytics) and describe how each phase of the AI project cycle was applied.

**Q5:** Write an algorithm and draw the flowchart for the following:

1. To convert temperature from Celsius to Fahrenheit
2. To find simple interest on P
3. To find area and perimeter of a square

**Enjoy working on your AI project, and make the most of this opportunity to dive into the fascinating world of Artificial Intelligence.**

## SUPW:

1. Make a set of 2 'hanging planters' with different smiling 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 class work.



DO TAKE UP A MINDFUL ACTIVITY DURING VACATION LIKE MEDITATION,  
READING, WALK IN THE NATURE ETC.

**HAPPY HOLIDAYS!!!**

