



**The International
School of Bombay**

NURTURE • CHALLENGE • SUCCESS

SUMMER ASSIGNMENT

CLASS -9



Dear Children,

It is summer time, I hope you would enjoy your holidays to the best of your capacities.

Spend good time with your family,

Try to do your written work regularly to enhance your writing power.

Pay special attention towards your health and hygiene.

Don't Play in the sunshine or on hot places.

General Instructions:

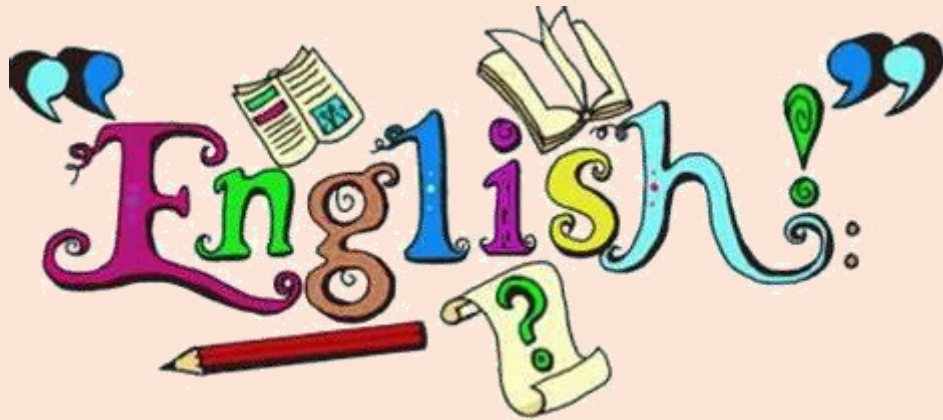
All work is to be done in the subject notebook.

It should be neat and clean.

Read all the homework carefully before starting of the homework.

Please follow the instructions given in each subject homework.

All the Homework will be marked and assessed, so it is **COMPULSORY, to do all the subject homework.**



1. Write about 5 such people who are physically or mentally impaired yet they have achieved success in life, just like Evelyn Glennie. Also paste their pictures as well in your Scrap Book.

Example – a. Shrikant Bolla – blind – industrialist

b. Stephen Hawking – motor neurone disease – cosmologist and author

2. Read the story, 'Kabuliwallah' by Rabindranath Tagore. Write the theme of the story and describe the character of the protagonist.

3. Write a letter to Margie/Tommy describing him/her about your school and our education system.

4. Make a mind map with heading in the center, 'Schools of the Future'.

5. Read the extract and answer the questions that follow:

“May be,” he said nonchalantly. He walked away whistling, the dusty old book tucked beneath his arm. Margie went into the schoolroom. It was right next to her bedroom, and the mechanical teacher was on and waiting for her. It was always on at the same time every day except Saturday and Sunday, because her mother said little girls learned better if they learned at regular hours. The screen was lit up, and it said: “Today’s arithmetic lesson is on the addition of proper fractions. Please insert yesterday’s homework in the proper slot.”

Questions a. “May be,” he said nonchalantly. Who does ‘he’ refer to?

- b. How was Margie's school different from the school of today?
- c. Find a word from the passage which has the meaning same as 'showing not any interest'.
- d. It was right next to her bedroom. What does 'it' refer to?
- e. What thoughts lingered in the mind of Margie when the mechanical teacher was teaching arithmetic?

6. In spite of being a T.C., M.S. Dhoni chose to become a cricketer. Find out about 5 more such people who chose the path of their choice just like the poet, Robert Frost, who chose the path less travelled by, in the poem, 'The Road Not Taken'.

Amitabh Bachchan – left the job in Kolkata – today he is a big name in the film industry

7. Fill in the blanks to complete the following paragraph that deals with the theme of the poem. Use the words given in the box below:

Decision, sorry, foresee, choices, pleasant, direction, fork, trail rewarding, chance, wonder, both

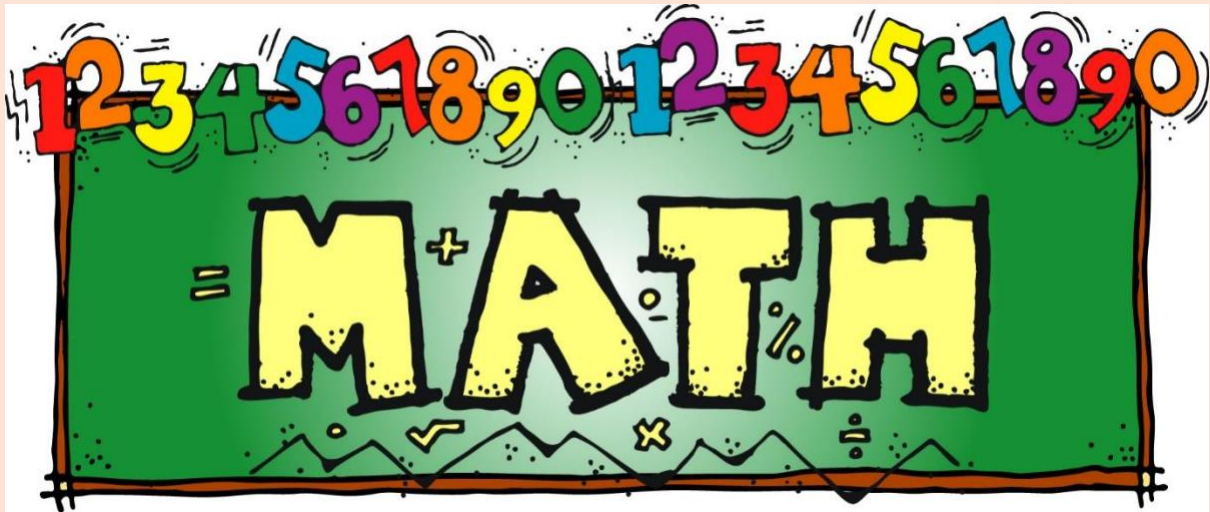
The poem "The Road Not Taken" by Robert Frost is about the _____ that one makes in life. It tells about a man who comes to a _____ in the road he is travelling upon. He feels _____ that he cannot travel _____ paths as he must choose one. Frost uses this fork in the road to represent a point in the man's life where he has to choose the _____ he wishes to take in life. As he thinks about his _____ he looks down one path as far as he can see trying to _____ what life will be like if he walks that path. He then gazes at the other _____ and decides the outcome of going down that path would be just as _____. At this point he concludes that the trail that has been less travelled on would be more _____ when he reaches the end of it. The man then decides that he will save the other path for another day, even though he knows that one path

leads to another and that he won't get a _____ to go back. The man then says that he will be telling this story with a "sigh" someday in the future suggesting that he will _____ what life would have been like if he had chosen the more walked path even though the path he chose has made all the difference.

8. Suppose you were the child who lost the company of his/her parents in the village fair. Write a diary – entry describing your feelings and how you managed to find your parents. Also, write steps on how we can ensure the safety of a child.



1. भारत के किन- किन वैज्ञानिकों को नोबेल पुरस्कार मिला है? पता लगाकर लिखिए।
2. सर चंद्रशेखर वेंकट रमन की उपलब्धियों तथा उनके जीवन से प्राप्त होने वाले संदेश को अपने शब्दों में लिखिए।
3. आप सुबह से शाम तक ढेरों उपकरणों का इस्तेमाल करते हैं। इनमें से 5 उपकरणों के नाम तथा उनके आविष्कारकों के नाम लिखिए। (चित्र सहित)
4. डॉ हरगोविंद खुरान, डॉ होमी जहांगीर भाभा ने किसकी खोज की है? विस्तार से वर्णन कीजिए।
5. भारतीय अनुसंधान संस्थान (Indian research centre) कहाँ - कहाँ पर है उनका विस्तार से वर्णन कीजिए।



Number Systems

M.C.Q.

1. The value of $25^{1/3} \times 5^{1/3}$ is:

- a) 25
- b) 5
- c) 3
- d) 1

2. Rationalizing factor of $\frac{1}{2\sqrt{3}-\sqrt{5}}$ is:

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

3. $(2 + \sqrt{3})(2 - \sqrt{3})$ is equal to:

- a) $4\sqrt{6}$
- b) $4\sqrt{3}$
- c) 1
- d) $2\sqrt{6}$

4. The rationalizing factor of $5 - 2\sqrt{3}$ is:

- a) $5 + 2\sqrt{3}$
- b) $5 - 2\sqrt{3}$
- c) $5 \times 2\sqrt{3}$
- d) $5 \div 2\sqrt{3}$

5. Which of the following is irrational:

- a) 0.14
- b) 0.1423
- c) 0.404004000...
- d) 0.3333...

6. Simplified form of $2^{2/3} \times 2^{1/3}$:

- a) 2
- b) 3
- c) 4
- d) 6

7. Insert a rational number and an irrational number between $\sqrt{2}$ and $\sqrt{3}$.

8. Find four rational numbers between $3/5$ and $4/5$.

9. Find four irrational numbers between $3/5$ and $4/5$.

10. Find the value of $(3 + 2\sqrt{5})(7 - 2\sqrt{5})$.

11. Find the product $(5 + \sqrt{7})(5 - \sqrt{7})$.

12. Find the value of $625^{1/2}$.

13. Factorize $9x^2 - 16y^2$.

14. Factorize $9x^2 + 30x + 25$.

15. Find the value of $(7 + 2\sqrt{5})^2$.

16. Find the value of $25^{1/2} \div 5$.

17. Represent $\sqrt{5}$ on the number line.

18. Rationalize the denominator:

a) $\frac{1}{\sqrt{3}-\sqrt{2}}$

b) $\frac{1}{\sqrt{7}-\sqrt{2}}$

19. Rationalize the denominator of $\frac{2+\sqrt{3}}{2-\sqrt{3}}$

20. Make a project/model on “Real Numbers”.

21. From lab manual,

a) To make a square root spiral by paper folding method.

b) To find the square root of natural numbers and represent the square root as a line segment.

c) To find the square root of any given positive real number through an activity by paper folding and geometrical construction.



1) To prepare a brief write up on any concept of the chapter 14 Natural resources in the portfolio file.

2) Write the following experiments in the Physics, Biology, Chemistry practical files. (except the calculations and result part).

physics

1. Verification of the Laws of reflection of sound.
2. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
3. Establishing the relation between the loss in weight of a solid when fully immersed in
 - a) Tap water
 - b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.
4. Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring).
5. Verification of the law of conservation of mass in a chemical reaction.

Biology

1. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams.
2. Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.

Chemistry

Preparation of:

- a) a true solution of common salt, sugar and alum
- b) a suspension of soil, chalk powder and fine sand in water
- c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of transparency, filtration criterion, stability.

Preparation of

a) A mixture

b) A compound

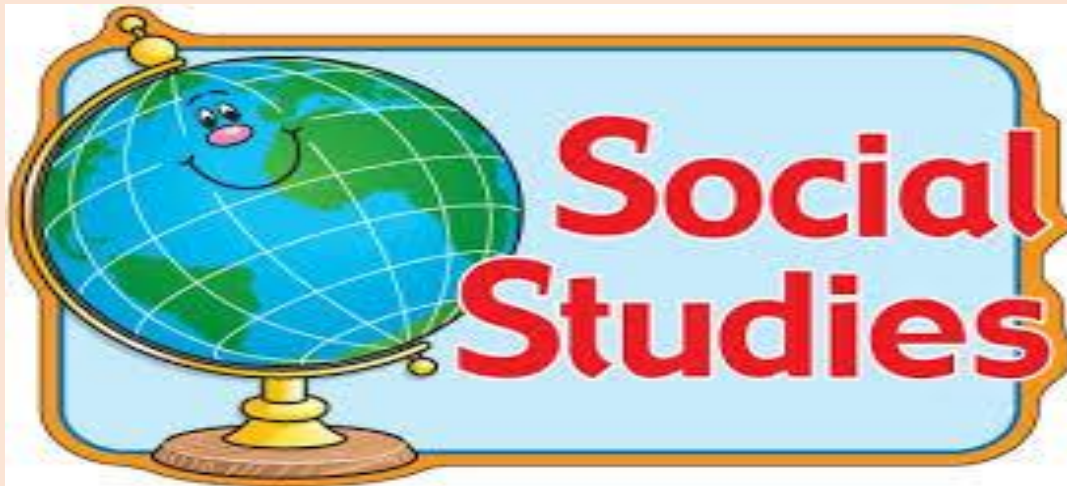
using iron filings and sulphur powder and distinguishing between these on the basis of:

- (i) appearance, i.e., homogeneity and heterogeneity
- (ii) behaviour towards a magnet
- (iii) behaviour towards carbon disulphide as a solvent
- (iv) effect of heat

Perform the following reactions and classify them as physical or chemical changes:

- a) Iron with copper sulphate solution in water
- b) Burning of magnesium ribbon in air
- c) Zinc with dilute sulphuric acid
- d) Heating of copper sulphate crystals
- e) Sodium sulphate with barium chloride in the form of their solutions in water

Determination of the melting point of ice and the boiling point of water.



Answer the following questions in Geography notebook:-

- 1) Give three examples to prove that democracy goes beyond the meaning of government?
- 2) "India has a large coastline which is advantageous". Explain.
- 3) Mark the following in the political map of India:
 - The Island groups of India lying in the Arabian sea and the bay of Bengal .
 - The countries constituting Indian Subcontinent.
 - The states through with the Tropic of cancer passes.
 - The northern most latitude in degrees .
 - The southern most latitude of the Indian mainland in degrees .
 - The eastern and western most longitude in degrees

- The place situated on the three seas .
- The strait separating Sri Lanka from India.
- The union territories of India .

4) What is the role of citizen in promoting democracy?

5) What is the importance of Standard Meridian for India ?

6) Why did Indian ocean named after India ?

7) Write main features of democracy.

8) How did Musharraf established his rule in Pakistan?

9) Which island countries are our southern neighbors?

10) The central location of India at the head of the Indian ocean is considered of great significance . Why ?

11) Make a Chart on **any one** topic:-

- i. The political system under the Constitution of 1719
- ii. Reading political symbols during French revolution
- iii. A picture collage of Hitler and Nazism
- iv. Causes of river pollution
- v. Fundamental rights
- vi. Parliament
- vii. Preamble of Indian Constitution
- viii. Freedom fighters of India
- ix. National Emblem
- x. Different levels of Government



**HAPPY
HOLIDAYS!**