



SREE AYYAPPA PUBLIC SCHOOL

Summer Holiday Assignment: 2022-2023

Class - IX

ENGLISH

F.M

Q1. Fast food is not good for health. Create a story in 100-120 words with pictures and drawings with this message wherein a girl or a boy explains to her /his younger brother, the bad effects of eating fast food.

Q2. Indulge yourself in reading these books:

- i) A Tale of Two Cities
- ii) Swami and Friends
- iii) Alice in Wonderland
- iv) Wings of Fire
- v) Any one novel of Harry Porter series

Activity: Design a book cover of any one of these books and write a book review.

Instructions for writing a book review:

- Introduction- Start with a short quote or anecdote and give a brief description about the book.
- Include essential information about the title, author and kind of story (Fiction or Non – Fiction etc.)
- One or two paragraphs summarizing the book.
- One paragraph each on the book's strengths and weaknesses
- One paragraph on your assessment of the book's strengths and weaknesses, the characters and the important themes .
- End up with a strong conclusion.
- You can give the book a rating (mark out of five or ten if you like.)

3. "Two roads diverged in a wood,
And I took the one less travelled by,
And that has made all the difference."

On the basis of your understanding of the above lines analyse the following and write your responses in the form of a paragraph. [Literature – The Road Not Taken]

- Why are people in dilemma sometimes?
- What is the need of making correct choices in life?
- Which determining factors and values would you consider before making an important choice?

4. Create five slogans of your own which focus on conservation of our environment.

5. Creative writing on any form of poem, story, article, report, paragraph etc. on any important day that you have observed.

6. Read Newspaper and make a list of ten News Headlines. [Use Passive Voice].

You may select News Headlines on the following issues. [Social, Environmental and Political issues].

7. Create a MINI – DICTIONARY of unfamiliar words with meanings and usages. [20 words].



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Class - IX

MATHEMATICS

F.M

1. Find two rational numbers between 0.1 and 0.3
2. Express $3\frac{1}{8}$ in the form of decimal.
3. Simplify: $(4 + \sqrt{3})(4 - \sqrt{3})$
4. Rationalise the denominator of $\frac{1}{\sqrt{3} - \sqrt{2}}$.
5. Express $0.\overline{245}$ as a fraction in the simplest form.
6. The polynomials $P(t) = 4t^3 - st^2 + 7$ and $Q(t) = t^2 + st + 8$ leave the same remainder when divided by $(t - 1)$. Find the value of s .
7. If $x = -2$ is a root of the polynomial $P(x) = -2x^4 - 7x^3 - 3x^2 - tx - 10$, then find the value of t .
8. Using a suitable identity, determine the value of A) $(17)^3 + (-12)^3 + (-5)^3$ and B) $64m^3 - 343n^3$
8. If $x^2 + \frac{1}{x^2} = 18$ then find the value of $x - \frac{1}{x}$.
9. Factorise: $(a - b)^3 + (b - c)^3 + (c - a)^3$
10. Show how $\sqrt{5}$ can be represented on the number line.

Long answer type questions:

11. Determine the graph of the equation $y=2x-3$
12. Draw the graph of equation $3x+6y=12$. Find the coordinates of the point where the graph cuts the y-axis.
13. Using the long division method, determine the remainder when the polynomial $4x^5 + 2x^4 - x^3 + 4x^2 - 7$ is divided by $(x - 1)$.
14. Factorise: $x^3 + 13x^2 + 32x + 20$
15. If $x^2 - 3x + 2$ divides $x^3 - 6x^2 + ax + b$ exactly, then find the value of 'a' and 'b'
16. If $x + y = 12$ and $xy = 32$, Find the value of $x^2 + y^2$.
17. If $3x + 2y = 12$ and $xy = 6$, find the value of $9x^2 + 4y^2$.
- 18 Write the following cubes in the expanded form:
 - (i) $(3a + 4b)^3$
 - (ii) $(5p - 3q)^3$
19. If $x^2 + \frac{1}{x^2} = 27$, find the values of each of the following:
 - (i) $x + \frac{1}{x}$

(ii) $x - \frac{1}{x}$

20. If $x - \frac{1}{x} = 4$, then evaluate $x^2 - \frac{1}{x^2}$ and $x^4 - \frac{1}{x^4}$.

21. If $a + b + c = 15$ and $a^2 + b^2 + c^2 = 83$, find the value of $a^3 + b^3 + c^3 - 3abc$.

22. Factorize:

(i) $6ab - b^2 + 12ac - 2bc$

(ii) $9(2a - b)^2 - 4(2a - b) - 13$

23. If $x^3 + ax^2 - bx + 10$ is divisible by $x^2 - 3x + 2$, find the values of a and b .

24. Using factor theorem, factorize each of the following polynomials:

(i) $x^3 - 6x^2 + 3x + 10$

(ii) $2y^3 - 5y^2 - 19y + 42$

25. Which one is not a polynomial

(a) $4x^2 + 2x - 1$

(b) $y + \frac{3}{y}$

(c) $x^3 - 1$

(d) $y^2 + 5y + 1$

*Project work: Make a project on the topic "Contribution of any five Indian in the field of Mathematics"

*Lab Manual work: Make any five activities from half yearly syllabus.

श्री अय्यप्पा पब्लिक स्कूल
बोकारो इस्पात नगर
ग्रीष्मावकाश गृहकार्य 2022-23

वर्ग:- नवम

विषय :- हिन्दी

1. एक शब्द या एक वाक्य में उत्तर दें।

(क) दो बैलों की कथा पाठ में वर्णित शब्द निरापद सहिष्णुता का क्या अर्थ है।

(ख) छोटी बच्ची किसी पुत्री थी?

(ग) कांजीहौस क्या है ।

(घ) नीलामी में किसने बैलों को खरीदा।

(ङ) प्रेमचंद ने किन्हें ऋषि मुनियों की श्रेणी में रखा है और क्यों?

(च) कबीरदास के कौन से तीन काव्य-संग्रह हैं?

(छ) कैसा व्यक्ति सज्जन होता है?

(ज) ईश्वर कहाँ मिलते हैं?

(झ) "प्रेमी कौं प्रेमी मिले" से क्या तात्पर्य है?

(ञ) कबीर ने साखी में किस बात की निंदा की है?

(खण्ड-ख)

2. निम्नलिखित प्रश्नों के उत्तर संक्षेप में दें।

(क) छोटी लड़की का बैलों से अपनापन होने का कारण बताइए।

(ख) "गिरे हुए बैरी पर सींग न चलाना चाहिए " यह कथन हीरा की कौन-सी विशेषता दर्शाता है?

(ग) साखी के शिल्प -सौंदर्य की कोई दो विशेषताएँ लिखिए।

(घ) "सब जग रहा भुलान" से कवि का क्या तात्पर्य है ?

(ङ) कबीर के अनुसार मनुष्य को ईश्वर की खोज कहाँ करनी चाहिए ?

(खण्ड-ग)

3. निम्नलिखित प्रश्नों के उत्तर 8-10 वाक्यों में दें।

(क) 'दो बैलों की कथा' कहानी से आपको क्या प्रेरणा मिलती है?

(ख) कृषि प्रधान समाज में पशुओं का क्या महत्व होता है?

(ग) कबीर ने हिंदुओं और मुस्लिमों की उपासना पद्धति और प्रवृत्ति के विषय में क्या बताया है ?

(घ) कबीर का 'मोट चून मैदा भया' से क्या अभिप्राय है ? स्पष्ट करें।

(ङ) कबीर की साखियों में मानसरोवर, हंस और मुक्ताफल किसे माना गया है ?

(खण्ड-घ)

(4) रचनात्मक कार्य

(क) कबीरदास की रचित 'सबद' (1 एवं 2) का कक्षा में सस्वर वाचन करते हुए उसका भावार्थ अपने शब्दों में लिखिए।

परियोजना कार्य

(ख) ललदयद एक कश्मीरी कवियित्री हैं। कश्मीर के प्राकृतिक सौंदर्य को दिखाते हुए एक परियोजना कार्य बनाएँ।

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बोकारो इस्पात नगर
ग्रीष्मावकाश गृहकार्य 2022-23

वर्ग:- नवम

विषय :- संस्कृत

1. स्वर सन्धि के भेदों को लिखकर प्रत्येक भेद के 2-2 उदाहरण लिखें ।
2. तुमुन् एवं क्त्वा प्रत्यय से 10-10 क्रियाओं का निर्माण करें।
3. वसन्त ऋतु के विषय में 5 वाक्य संस्कृत भाषा में लिखें।

SANSKRIT PROJECT

1. महाराणा प्रताप का चित्र बनाकर उनके विषय में 5 वाक्य संस्कृत भाषा में लिखें।

(Use only A4 Size paper)

Sree Ayappa Public School

Session 2022-23

Summer Assignment

Subject – Science(Physics)

Class-9

❖ **Answer the following questions :-**

Q-1) Write differences between followings -

- A. Uniform motion and non uniform motion
- B. Distance and displacement

Q-2) A car travels from stop A to stop B with a speed of 30km/h and then returns back to A with a speed of 50km/h. Find -

- A. Displacement of the car
- B. Distance travelled by the car
- C. Average speed of the car

Q-3) A train is moving at a speed of 36km/h. After 5 seconds, it is found to be moving at 72 km/h. What is the acceleration of the train?

Q-4)

- A. What does the slope of distance - time graph gives?
- B. What does the slope of velocity - time graph gives?

Q-5) Deduce the following equations of motion -

- A. $s=ut + \frac{1}{2}at$
- B. $v^2 = u^2 + 2as$

Q-6) A farmer moving along the boundary of a square field of side 12m completes its one round in 50s. Find the magnitude of distance and displacement of the farmer at the end of 2 minutes 30seconds from the initial position.

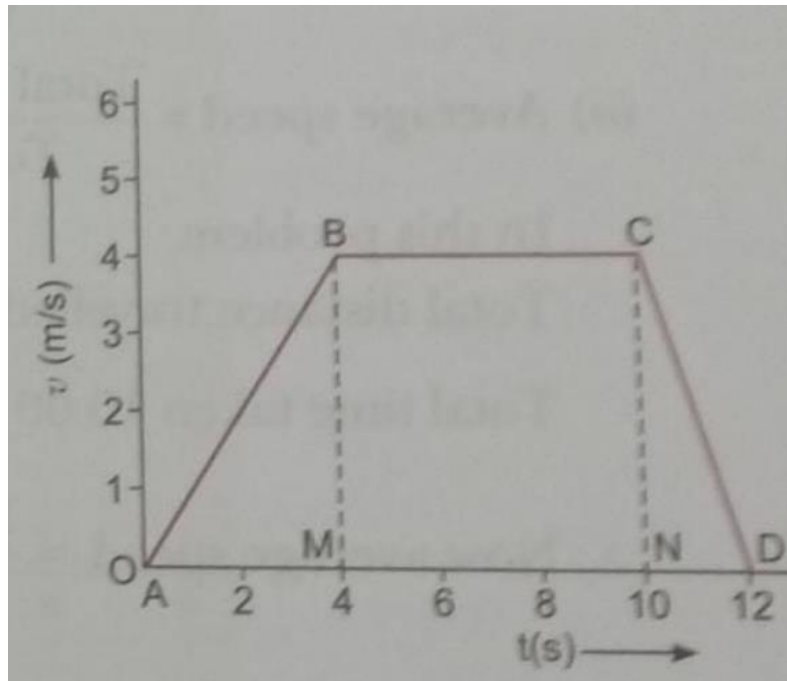
Q-7) A car requires a velocity of 72km/h in 10 seconds from rest. Find

- A. The acceleration
- B. The distance travelled in this time and
- C. The average velocity

Q-8) A satellite goes round the earth in circular orbit with constant speed. Is the motion uniform or accelerated?

Q-9) Under what condition is the magnitude of average velocity of an object equal to its average speed?

Q-10) Study the given graph and answer the following questions from it.



- Which part of the graph shows accelerated motion? Calculate the acceleration.
- Which part of the graph shows retarded motion? Calculate the retardation.
- Calculate the distance travelled by the body in first 4 seconds of journey graphically.

Activity (File work)

Q) Draw velocity time graph for the following data on graph paper

Velocity(In m/sec)	5	10	15	20	25	30
Time (in s)	1	2	3	4	5	6

Answer the following questions –

- What kind of motion the given V-T graph shows?
- Find the acceleration of moving body(graphically)
- Find the distance covered by the body between 3 to 5 seconds(graphically)



SREE AYYAPPA PUBLIC SCHOOL

Summer Holiday Assignment: 2022-2023

Class - IX

CHEMISTRY

F.M

I. Answer the following questions:

1. Explain inter conversion of three states of matter with the help of a flowchart.
2. How can you say that particles of the matter are in constant motion?
3. What do you mean by Latent heat? Explain Latent heat of vaporization and Latent heat of fusion.
4. What is common between all things we see around us?
5. Sugar when added to the water gets dissolved. Which characteristics property of particles of matter is exhibited by this?
6. A Diver is able to cut through water in a swimming pool. Which property of matter does this observation show?
7. Give reason for the following:
 - a. We can easily move our hands in air but not through liquid or solid.
 - b. Water flows faster than honey.
 - c. Solids have only vibratory motion.
8. Rohit added small amount of common salt to water taken in a graduated cylinder. On dissolution there was no detectable change in the level of water. Explain why is it so?
9. In which of the following the particles have highest forces of attraction?
Milk, sugar, carbon dioxide
10. A sample of water was heated from 30°C to 45°C .
 - (a) What were the initial and final temperatures of water in Kelvin scale?
 - (b) How much was the rise in temperature on Kelvin scale?
 - (c) How much was the rise in temperature on Celsius scale?
11. (a) Convert the following temperatures to Kelvin scale.
 - (i) 2573°C (ii) 527°C (iii) -20°C(b) Convert the following temperatures to Celsius scale.
 - (i) 573K (ii) 298K (iii) 373K
12. Why are we able to sip hot tea or milk faster from a saucer rather than a cup?
13. Why does a desert cooler cool better on a hot dry day?
14. Why solid carbon dioxide is called dry ice?

II. Assertion – Reason based questions:

The following questions consist of two statements ---Assertion (A) and Reason (R).

Answer these questions selecting the appropriate option given below:

- (a) Both A and R are true and R is the correct explanation of A.
 - (b) Both A and R are true but R is not the correct explanation of A.
 - (c) A is true but R is false.
 - (d) A is false but R is true.
15. **Assertion (A)** : The rate of diffusion of liquids is more than solids.
Reason (R) : The intermolecular force of attraction is more in solids than liquids.
 16. **Assertion (A)** : Naphthalene balls disappear with time without leaving any residue.
Reason (R) : Naphthalene balls converts from solid to liquid state very quickly.
 17. **Assertion (A)** : During evaporation of liquid the temperature of the liquid remains unaffected.
Reason (R) : Kinetic energy of the molecules is directly proportional to absolute temperature.

18. **Assertion (A)** : On applying pressure, liquids convert into gases.

Reason (R) : On applying pressure, intermolecular space decreases.

19. **Assertion (A)** : The rate of evaporation of water in a plate is higher than that in a cup.

Reason (R) : The rate of evaporation decreases with increase in humidity.

III. Case study based questions:

20. When a liquid is exposed to air, its volume decreases gradually. As some of the liquid at the surface turns into vapour and mixes with the gases in the air. This process of changing of a liquid into vapour below its boiling point is known as evaporation. Temperature, surface area, humidity and wind speed are the factors which affect the rate of evaporation. On increasing the temperature, the rate of evaporation increases. Evaporation also increases with the increase in the surface area of the liquid. Humidity is the amount of water vapour present in air. When humidity is low, the rate of evaporation is high. The rate of evaporation of a liquid increases with increase in wind speed.

When a liquid evaporates, it takes the latent heat of vaporisation from its surrounding and make the surrounding cool.

(i) How can you increase the rate of evaporation?

(ii) Define latent heat of vaporisation.

(iii) Why do people sprinkle water on the ground in front of their homes during the hot summer evenings?

(iv) Evaporation of a liquid takes place.

(a) below its melting point

(b) above its melting point

(c) below its boiling point

(d) above its boiling point

IV. Activity / Project :

Make a project on 5 states of matter by using materials in your surroundings.

Suggest an activity to show diffusion in liquid.



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Class - IX

BIOLOGY

F.M

- I. Record your observations.
Three beakers A,B and C contains plain water and concentrated sugar solution respectively. Equal number of dried raisins are kept in them for a few hours and then taken out.
- Explain the reason for the difference in the physical appearance of the three beakers.
 - On the basis of the above observation categorise the three solutions.
- II.
 - Draw a neat labelled diagram of a plant and animal cell and write the main differences.
 - Make a model of both the cells using eco-friendly materials.
- III. Make an attractive collage of newspaper clippings highlighting various Environmental issues, developments in Science & Technology, etc.
- IV. The urgent need of today is to protect our environment from dire consequences, otherwise the future generation will be forced to live on a barren land and deserts, drink contaminated water and breathe polluted air. We need to take immediate steps to mitigate these environmental issues.

As an ambassador of the 'Go Green campaign'.

- Prepare a questionnaire on the given topic and distribute among the people of your locality. Record their responses.
- Spread awareness about the 'Go Green Campaign'.
 - Note down the work you have done in this regard in a separate copy.
 - Q (I) and (II) to be done in a stick file.

V. Answer the following questions:

- Who discovered cells and how?
- Why is the cell called the structural and functional unit of life?
- How do substances like CO_2 and water move in and out of the cell?
- Why is the plasma membrane called a selectively permeable membrane?
- Why do plants cells possess large vacuoles?
- Name the two organelles that contain their own genetic material.
- If the organisation of a cell is destroyed due to some physical and chemical influence, what happens?
- Write the functions of nucleus. Draw a labelled diagram of the nucleus.
- Where are proteins synthesized inside the cell?
- What are chromosomes? Write its functions.
- How is a prokaryotic cell different from a eukaryotic cell?
- What would happen if the plasma membrane ruptures or breaks down?
- What would happen to the life of a cell if there was no Golgi apparatus?
- Which organelle is known as the "powerhouse of the cell"? Why?
- Where do the lipids and proteins constituting the cell membrane get synthesized
- How does an Amoeba obtain its food?
- What is osmosis?
- If you are provided with some vegetables to cook, you generally add salt to the vegetables during cooking process. After adding salt, vegetables release water. What mechanism is responsible for this?
- Why are Lysosomes known as 'suicide bags' of a cell?
- Why does the skin of your finger shrink when you wash clothes for a long time?



SREE AYYAPPA PUBLIC SCHOOL

Summer Holiday Assignment: 2022-2023

Class - IX

S.ST

F.M

1. Make an individual project file: -
Collect information about the ancient 'Silk Route'. Also find out the new developments in the modern era.
2. What was the contribution of Mirabeau and Abbe Sieyes to the formation of National Assembly in France in 1791?
3. What was the role of these philosophers in the French revolution: -
 - a. John Locke
 - b. Jean Jacques Rousseau
 - c. Montesquieu
4. What would have happened if India was not a democracy? Would be having stayed together as a single nation.
5. Write in details about the 'Green Revolution' of India.
6. Show on outline map of India 28 states and 8 union territories with their capitals.
7. 'A large number of Jacobins came to be known as Sans-culottes'. What this term mean.
8. What do you understand by the term the 'Reign of terror'?
9. How was slavery abolished in France?
10. Why is 82° 30' E selected as standard meridian of India?
11. Explain the importance of India's location on the Globe.
12. Write about the relation of India with her neighboring countries in the present context.
13. State the freedoms which are usually taken away, when democracy is overthrown by a military regime.
14. 'Till 2000, Mexican people seem to have a choice to elect their leader but practically they had no choice.' Support this statement with suitable reason.
15. How does democracy improve the quality of decision making?

Note: - 1. Project work must be done in A4 size paper in file.
2. Question and answers must be done in a copy.



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Summer Holiday Assignment: 2022-2023

Class - IX

IT

F.M

1. What is the purpose of communication?
 - a. Inform
 - b. Influence
 - c. Share thoughts ,ideas ,feelings
 - d. All of the above
2. Choose the correct example of oral communication.
 - a. Reports
 - b. Newspapers
 - c. Face to face conversation
 - d. Notes
- 3 Which of these is a positive (good) facial expression?
 - a. Starting hard
 - b. Nodding while listening
 - c. Wrinkled forehead
 - d. Looking away from the speaker .
4. What does an upright (straight) body posture convey /show?
 - a. Shyness
 - b. Fear
 - c. Confidence
 - d. Intelligence
5. Which of the following methods are used to receive information from the sender through a letter?
 - a. Listening
 - b. Speaking
 - c. Reading
 - d. Writing
6. Identify the subject in the sentence, "The children played football."
 - a. The children
 - b. Children played
 - c. Played
 - d. Football
7. What is phonetics?
 - a. It is the study of how we write words in English .
 - b. It is the study of how people understand sentences .
 - c. It is the study of how many words the English language has.
 - d. It is the study of the sounds we make when we speak .
8. Which of these are open- ended questions?
 - a. Where do you live?
 - b. How do you feel?
 - c. Are you hungry?
 - d. Did you meet him?

9. How do you receive information on phone?
 - a. Listening
 - b. Speaking
 - c. Reading
 - d. Writing
10. When we communicate verbally we should use -----
 - a. Difficult words
 - b. Simple words
 - c. Confusing words
 - d. Abbreviations

VERY SHORT ANSWER QUESTIONS

1. Define communication.
2. Who is an effective speaker?
3. Define articles with example.
4. Write about Visual communications.
5. Write any two advantage of verbal communication.

SHORT ANSWER QUESTIONS

1. What is the importance of communication? Write any two.
2. Write down the different types of verbal communication .Give an example for each type.
3. Give an example of the following:
 - a. Clear communication.
 - b. Complete communication.
4. Write any 5Cs of effective communication.
5. Draw& label communication channel diagram.

LONG ANSWER QUESTIONS

1. Explain the types of communication.
2. Write about all the elements of communication.
3. Which factors affecting perspectives in communication.
4. Write about the advantage of verbal and non-verbal communication.
5. Explain the types of sentences with 1 example of each.



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Class - IX

ART

F.M

Make a Madhubani painting on paper (Size – A4)

Theme : Mythological Character

Example :



Materials required

1. Thick drawing sheet.
2. Pencil, black marker, gel pen (red, green, and blue).
3. Ruler, brush.
4. Poster colour or water colour (any colour).



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Class - IX

DANCE

F.M

1. Cut and paste the pictures of any 2 famous Bharatnatyam and kathak dancers in your copy. Give a brief account on the dance style in 20 words.
2. Types of expressions in abhinaya.
3. Different types of postures for different gods, that we can use in dance. (Deva hastas)
4. Neck movements. (Greevabhed)



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Summer Holiday Assignment: 2022-2023

Class - IX

MUSIC

F.M

01. Learn and sing school prayer (from school diary) and two devotional songs. (video /audio to be presented)
02. Collect photograph of great Indian musicians.
03. Draw and name two Indian and two western musical instruments.
04. Definition of some musical terms:
 1. Sangeet
 2. Swar
 3. Dhwani
 4. Matra
05. Collect the information about the Indian Classical Music.



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Class - IX

PE

F.M

1. Write the terminologies, fundamental skills, rules and diagram with measurements (in meters) of the following games (any one). Make a Collage of famous Players on A4 sheet of the same.

- a) Kho Kho
- b) Basketball
- c) Football
- d) Cricket
- e) Volleyball
- f) Kabaddi

2. Write the steps of yoga asana and draw diagram or paste the picture.

- a) Sun Salutation
- b) Warrior Pose
- c) Wheel Pose

Write five advantages and disadvantages of the above.
