SOMERVILLE SCHOOL, VASUNDHARA ENCLAVE

CLASS 9, HOLIDAYS HOMEWORK

SESSION 2024-25

S.NO.	SUBJECT	DETAILS
1	HINDI	Worksheet & Art Integration
2	ENGLISH	Worksheet & Art Integration
3	SANSKRIT	Worksheet & Art Integration
4	MATHS	Worksheet & Art Integration
5	PHYSICS	Worksheet
6	CHEMISTRY	Worksheet
7	BIOLOGY	Worksheet & Art Integration
8	SOCIAL SCIENCE	Disaster Management Project (CBSE Project)
9	ARTIFICIAL INTELLIGENCE	Worksheet
10	INFORMATION TECHNOLOGY	Worksheet

STATE - ANDAMAN/LAKSHADWEEP ISLANDS

ENGLISH -Andaman and Nicobar/Lakshadweep Islands are famous for their scenic beauty and adventurous water activities. As part of the department of Indian Tourism, create an advertisement that will help boost the flow of tourists to these enchanting islands.

You must keep the following points in mind:

· The advertisement should be created on an A3 sheet.
· It should include a meaningful slogan and relevant information.
· It must have colourful pictures/illustrations.

हिंदी - कला समेकित गतिविधि - लक्षद्वीप के दर्शनीय स्थलों के विषय में जानकारी एकत्र कीजिए व 2-3 पेज मैगज़ीन के पेज की तरह चित्र सहित तैयार कीजिए |

संस्कृत - कलासमन्वित गतिविधि- सचित्रं लक्षद्वीपस्य विषये दशवाक्यानि रचयत |

- निर्देश - गतिविधि कार्य A4 क्राफ़्ट शीट पर करना है |

MATHS : Depict the following information about Lakshadweep Islands in the form of Pie chart.

Most common spoken languages in Lakshadweep Island.

- Mention about some common languages spoken in the island.
- Collect the data (in percentage form) and present in the tabular form
- Represent the same in the form of a pie chart with a title and use different colours.

❖ NOTE: Solve the assignment on A-4 size white sheets
❖ Prepare the project on A-4 size white/coloured sheets

SCIENCE-(Biology)

Topic: Wildlife of Andaman and Nicobar Islands or Lakshadweep islands

1. Andaman and Nicobar/ Lakshadweep is famous for its shells and coral reefs. Using materials similar to those available on their beeches, make a small model of cell organelles or animal cell or plant cell (any one).

2. Describe the marine ecosystem of Andaman and Nicobar Islands or Lakshadweep islands, its importance and threat to it.

SOCIAL SCIENCE - DISASTER MANAGEMENT PROJECT

INDIVIDUAL ACTIVITY

 TOPIC: SURVIVAL SKILLS AND FIRST AID KIT FOR VARIOUS DISASTERS

Preparation of Project:

1. The total length of the project report will not be more than 15 written pages of foolscap size (A-4 size).

2. The project report will be handwritten and credit will be awarded to original drawings, illustrations, and creative use of materials.

3. The project report will be presented in a neatly bound simple folder.

4. Each student will be given a topic (i,e. disaster)

5. The project report will be developed and presented in the following order:

A. Cover page showing project title, student information, school, and year

B. List of contents with page numbers.

C. Acknowledgements (acknowledging the institution, offices, and libraries visited and persons who have helped).

D. Project Overview: Purpose, Aim, Methodology, and experiences while doing the project.

E. Chapters with relevant headings

F. Summary and conclusions based on findings.

G. Planning and activities to be done during the project, if any giving a calendar of activities.

H. Bibliography: should have the Title, pages referred, author, publisher, year of publication, and if a website the name of the website with the specific website link which has been used.

I. All the photographs and sketches should be labelled and acknowledged.

J. Teacher's evaluation report

SUB HEADINGS

- · Introduction
- · Definition of the specific disaster
- · Causes of the specific disaster
- · Search and rescue organistions
- · Mitigation strategies
- · First aid kit for the related disaster
- · Any recent case study

SUBJECT: ENGLISH

1. Read the passage given below and answer the questions that follow:

Philanthropy can be broadly defined as love for humankind. It is derived from the Greek words '*philos*' which means loving, and '*anthropos*' which means humankind. A person who practises philanthropy is called a philanthropist .

The purpose of philanthropy is to improve the wellbeing of humankind by preventing and solving social problems. Philanthropy is not the same as charity. Charity focusses on eliminating the suffering caused by social problems, while philanthropy focusses on eliminating social problems. For example, giving food to a person who is suffering from a famine is charity. The food helps the person for a short period of time, but the person will become hungry again in the future. Teaching the person how to grow food is philanthropy because it eliminates the social problem causing the person's hunger. Charity tends to be a short-term, emotional, immediate response, focussed primarily on rescue and relief, whereas philanthropy is much more long-term, more strategic, focussed on rebuilding.

Philanthropy is thousands of years old. Like modern philanthropists, ancient people practised philanthropy for different reasons. Some reasons were kindness and concern for the common good. Some people used philanthropy as a way to gain recognition, prestige, and power and others saw philanthropy as a way to gain the favour of the gods.

Philanthropy is important because it provides opportunities. Philanthropy supports projects and endeavours that may be too unpopular or controversial to gain the widespread support of the general public or the government. For this reason, philanthropy is a very important part of a democratic society. Philanthropists do not answer to the government or to the public, so are able to freely choose the people and projects to receive their support.

Philanthropy plays a very important role in society. People directly benefit from philanthropy by the use of libraries, schools, hospitals, performing arts centers and museums supported by the generosity of philanthropists. Philanthropy may also support scientific research, scholarships, civil rights endeavours, social services and other things beneficial to society.

On the basis of your reading of the above passage, answer the given questions:

a) Who is a philanthropist?
b) How is charity different from philanthropy?
c) The purpose of philanthropy is:
    i.   to earn more money.
    ii.   to improve the well-being of people.
    iii.   keeping everyone safe.
    iv.   helping people to ignore social issues.
d) Why did the ancient people practise philanthropy?
e) Which word in paragraph 4 means the same as `ventures'?

2. You are Amit/Ameeta of Kalka. Write a letter to your younger brother advising him on the importance of saving money.

3. Fill in the blanks with the correct form of the verbs given in the brackets:
a. He _____ TV every evening. (watch)
b. He _____ out five minutes ago. (go)
c. When he lived in Hyderabad, he _____ to the cinema once a week. (go)
d. The baby _____ all morning. (cry)
e. I _____ Rahim at the zoo. (see)
f. I _____ Kumar this week. (meet)
g. Ashok fell off the ladder when he _____ the roof. (mend)
h. I _____ something burning. (smell)
i. Look, the sun _____ over the hills. (rise)
j. She _____ a new organisation this month. (join)

4. Answer the following questions:
a. How had the narrator planned to surprise her grandmother? How was she herself surprised?
b. Why did Krishtakka want her children to study well?
c. Write a character sketch of Hooper.
d. What are the different things found floating in the brook?
e. Obstacles and hurdles are a part and parcel of man's life. Discuss with reference to the poem, 'The Brook'.

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विषय - हिंदी

1. पाठ 'दुःख का अधिकार' की कहानी को संवाद रूप में अपने शब्दों में लिखिए |

2. पढ़ाए गए पाठों में से अनुस्वार,अनुनासिक,उपसर्ग व प्रत्यय युक्त 15-15 शब्द चुनकर लिखिए तथा उपसर्ग व प्रत्ययों युक्त शब्दों में से मूलशब्द व उपसर्ग-प्रत्यय अलग-अलग कीजिए |

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SUBJECT: MATHEMATICS

Q1. Write the following numbers in $\frac{p}{q}$ form.

(i) $0.003\overline{52}$ (ii) $0.\overline{621}$

Q2. Find a rational and an irrational number between the numbers

0.3030030003…and 0.3010010001…

Q3. Represent geometrically $\sqrt{9.5}$ on number line.

Q4. If $x = 3 + 2\sqrt{2}$, Check whether $x + \frac{1}{x}$ is rational or irrational.

Q5. If $x = \dfrac{1}{2-\sqrt{3}}$, find the value of $x^3 - 2x^2 - 7x + 5$

Q6. If $x = 2 + \sqrt{3}$, find $\left(x + \dfrac{1}{x}\right)^3$.

Q7. Find a and b if $\dfrac{4+\sqrt{5}}{4-\sqrt{5}} + \dfrac{4-\sqrt{5}}{4+\sqrt{5}} = a + b\sqrt{5}$

Q8. Simplify: $\left[\left\{(256)^{-\frac{1}{2}}\right\}^{-\frac{1}{4}}\right]^2$

Q9. If $f(x) = 5x^2 - 4x + 5$, find $f(0) - f(1) + f(-2)$.

Q10. Factorise: a) $25x^2 + 16y^2 + 4z^2 - 40xy + 16yz - 20xz$.

b) $2\sqrt{2}\,a^3 + 8b^3 - 27c^3 + 18\sqrt{2}\,abc$.   (c) $4\sqrt{3}\,x^2 + 5x - 2\sqrt{3}$

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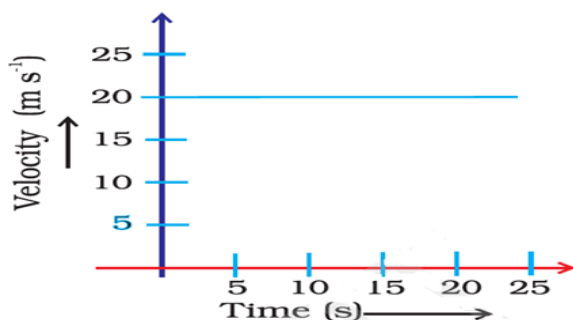
SUBJECT: SCIENCE

PHYSICS

_1. What is the average velocity of a particle when it returns to the starting point? Can its average speed be Zero?

2. Draw the distance-time graph for the following situations:

   (a) When a body is stationary.

   (b) When a body is moving with a uniform speed.

   (c) When a body is moving with a non-uniform speed.

3. The motion of a Jeep is shown in the velocity-time graph given below. Find its (i)acceleration (ii) velocity and (iii) distance travelled in 20s.

4.   A bicycle starts from rest, moves in a straight line with a constant acceleration and covers a distance of 48m in 6s.

   (a) Calculate the acceleration.

   (b) Aso find the final velocity acquired.
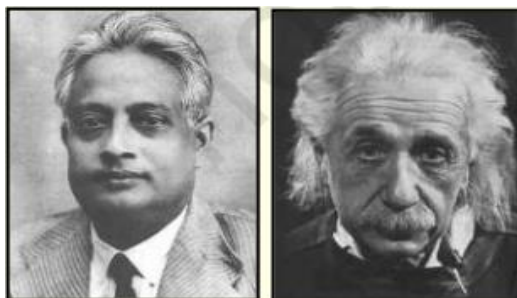
CHEMISTRY

1. While heating ice in a beaker with a thermometer suspended in it, a student recorded the following observations:

Time - minutes	0	1	2	3	4	5	6	7	8	10	15	20	25	30	35
Temperature (^0C)	-3	-1	0	0	5	8	12	15	19	22	30	50	73	100	100

Based on the above data, answer the following questions:
   a) State the change observed between 2-3 minutes and name the process involved.
   b) Between 30-35 minutes, the temperature remains constant. State the reason for this.

2. **The following questions consist of two statements – Assertion (A) and Reason (R).**
   a) **Assertion (A):** Ice floats on water.
      Reason (R): Liquids have more density than solids.
   b) **Assertion (A):** The rate of evaporation decreases with an increase in temperature.
      Reason (R): A decrease in temperature decreases the kinetic energy of the particles.
   Select the most 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 and R is not the correct explanation of A
      (C) A is true but R is false
      (D) A is False but R is true

3. Give reasons for the following.
   a) Wet roads get dried up quickly than potholes after rainfall.
   b) Dry ice is commonly used in theatre productions to produce the effect of fog.

4. A state of matter was predicted by these scientists based on certain calculations.

Identify these scientists and the state of matter they predicted. Also, write an application of that state of matter.

BIOLOGY

Topic: The Fundamental Unit of life

1. How is outer and inner membrane of mitochondria different from each other?

2. State two functions each of:

a) Endoplasmic reticulum

b) Golgi apparatus

c) vacuoles

3. An organism has 56 chromosomes, calculate the number of chromosomes that will be present in its cell if it undergoes:

a) Mitosis

b) Meiosis

4. Draw a neat and labeled diagram of a prokaryotic cell and a eukaryotic cell.

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विषय - संस्कृत

कार्यपत्रिका का प्रिंट लेकर उसी पर उत्तर लिखें ।

प्रश्न १ मञ्जूषायाः सहायतया संवादं पठित्वा रिक्तस्थानानि पूरयत -

मञ्जूषा -मित्रैः, दर्शनीयम्, गमिष्यामः, जयपुरं, कार्यक्रमः

विनोदः – अंकित ! श्वः भवान् कुत्र गमिष्यति ?

अंकितः – अहं (i) ……………गमिष्यामि ।

विनोदः – तत्र किमपि कार्य वर्तते ? अथवा भ्रमणार्थम्एव गच्छति ?

अंकितः – कार्य नास्ति, अहं तु (ii) …………… सह भ्रमणार्थ गच्छामि।

विनोदः – जयपुरे कुत्र-कुत्र भ्रमणस्य (iii) …………… अस्ति?

अंकितः – वयं तत्र आमेर-दुर्ग, जयगढ़दुर्ग, गोविन्ददेव-मन्दिरं च द्रक्ष्यामः ।

विनोदः – तत्र नाहरगढ़-दुर्गमपि पश्यतु । तदपि (iv) …………… अस्ति ।

अंकितः – यदि समयः.अवशिष्टः भविष्यति तर्हि निश्चयेन तत्र गमिष्यामः ।

विनोदः – बाढ़ मित्र ! नमस्ते !इदानीम् अहं गच्छामि। सोमवासरे आवां पुन :मिलिष्यावः। तदा (v) ……… वार्तालापं करिष्यावः।

उत्तराणि -

१)   २)   ३)   ४)

   ५)

प्रश्न २ निर्देशानुसारम् उत्तरत-

(i) अयं वर्णः पवर्गे नास्ति।

(अ) ब्   (ब) भ्   (स) ट्   (द) फ्

(ii) अस्य उच्चारणस्थानम् 'तालुः' नास्ति।

(अ) ख   (ब) छ्   (स) ज्   (द) य्

(iii) उचितं वर्णं चित्वा वर्णवियोजने रिक्तस्थानपूर्तिं कुरुत।

प्रतिष्ठा = प्+ र्+ अ +त्+ इ +_____+ ठ् + आ

(अ) श्   (ब) अ   (स) ष्   (द) इ

(iv) उचितं वर्णसंयोजनम् चिनुत।

उ + ज् + ज् + व् + अ + ल् + अ + म् =

(अ) उजज्वलम्   (ब) उज्ज्वलम्   (स) ऊज्जावालम्   (द) ऊज्ज्वलम्

प्रश्न ३-

अधोदत्तं पद्यांशं पठित्वा प्रश्नान् उत्तरत।

गौरवं प्राप्यते दानात् न तु वित्तस्य सञ्चयात्।
स्थितिरुच्चैः पयोदानां पयोधीनामधः स्थितिः।।

I. **एकपदेन उत्तरत।**

(i) गौरवं कस्मात् प्राप्यते?

(ii) केषां स्थितिः उच्चैः भवति?

II. **पूर्णवाक्येन उत्तरत।**

केषां स्थितिः अधः भवति?

III. **उचितम् उत्तरं चित्वा लिखत।**

(i) 'वित्तम्' इति पदस्य पर्यायपदम् किम्?

(अ) धनम् (ब) सम्पत्

(स) विद्या (द) निधनम्

(ii) 'अधः' इति पदस्य विलोमपदम् किम्?

(अ) नीचैः (ब) उच्चैः (स) अथः (द) अद्य

I.

II.

III.

प्रश्न ४ प्रश्ननिर्माणं क्रियताम्-

(i) नकुलः <u>ब्राह्मणस्य</u> चरणयोः अलुठत्।

(ii) ब्राह्मणः <u>राज्ञा</u> श्राद्धार्थं निमन्त्रितः।

(iii) शीलं परं <u>भूषणम्</u> अस्ति।

प्रश्न ५ शब्दार्थं चिनुत -

१) अविवेकः परमापदां <u>**पदम्**</u>।

स्थानम्/ गृहम्/ आसनम्

२) अगच्छन् <u>**वैनतेयः**</u> पदमेकं न गच्छति।

मयूरः/ गरुडः/ काकः

प्रश्न ६ प्रत्यय संयोजनं विभाजनं वा क्रियताम् -

१) बालिका <u>**रोदितुम्**</u> आरभत्।

२) ते <u>**वि+हस्+ल्यप्**</u> गृहम् अगच्छन्।

३) रामः दुग्धं <u>**पा+क्त्वा**</u> क्रीडनाय गच्छति।

४) माता फलानि <u>**निक्षिप्य**</u> अगच्छत्।

SUBJECT: Artificial Intelligence

Artificial Intelligence (AI) is the ally that sustainable development needs to design, execute,advise and to plan the future of our planet and its sustainability more effectively.

Q1. Watch the videos in the links given below and understand the 17 Sustainable Development Goals.

Identify which SDGs are essential in Lakshadweep Islands. Explain how AI can be used to solve these issues in Lakshadweep.

https://youtu.be/0XTBYMfZyrM .

https://youtu.be/Bpuoj1Op1kY

Q2. The 17 SDGs can be placed under the following 3 groups :

1. AI Societal Impacts

2. AI Economical Impacts

3. AI Environmental Impacts

Identify the SDGs falling under each group.

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SUBJECT: IT

Do the following questions in your notebook :

Q1. Who is a Touch Typist?

Q2. Explain the common mouse actions.

Q3. What is the role of Typing Ergonomics? What should be the placement of Monitor, Mouse and Keyboard while working on the computer system ?

Q4. What points may be kept in mind for successful keyboarding techniques ?

Q5. What is Rapid Typing Tutor ?

Q6. What is the color indication while interpreting your results in the Rapid Typing Tutor?

Q7. Explain the controls in the Lesson Editor Window.

Q8. What is Typing accuracy ?