

# SUMMER VACATION ASSIGNMENTS (2026-27)

## CLASS –IX

### ENGLISH

#### **1. A Travel Blogger's Cultural Journey**

Imagine you are a travel blogger who spends some time in Delhi and in the Andaman & Nicobar Islands.

Prepare a travel blog on an A4 sheet, comparing the cultural diversity of both the places using aspects such as:

Surroundings (crowded streets / beaches, greenery), Food habits, Lifestyle, your experience, packing list, best weather, local traditions etc.

Conclude with 3-4 lines on:

What did you learn about the cultural diversity of these two places through this experience?

(Give a catchy title to your blog)

**2. Poetry Revision Task-** Revise both the poems done in class. Then identify all the poetic devices used in them. On an A4 size sheet, write the following about each poetic device:

- Name of the poetic device
- Its definition
- One example from the poems

Also, research about a few more poetic devices and write a short poem in about 8-10 lines, incorporating a few poetic devices.

### HINDI

सामान्य निर्देश : \* कार्य A4 Size पेपर पर ही कीजिए।

\* सुंदरता एवं स्वच्छता का ध्यान रखिए।

(हिन्दी कला एकीकृत परियोजना कार्य)

1- स्वपरिचय - नाम, कक्षा, अनुक्रमांक एवं स्कूल का नाम ।

विषय - सांस्कृतिक विविधता

दिल्ली, अंडमान-निकोबार एवं लक्षद्वीप की सांस्कृतिक विविधता का स्वरूप बताते हुए, त्योहार, वेशभूषा एवं खानपान में अंतर का सचित्र वर्णन कीजिए ।

2- किसी भी हिन्दी समाचार पत्र को पढ़कर उसमें छपे लेख में से किसी दस लेख को पढ़कर लिखिए ।

(10 पृष्ठ)

## **MATHEMATICS**

### **1. Project-**

Topic: **“Cultural Diversity Through Data & Graphs”**: a comparative\_mathematical study on the cultural diversity between Andaman- Nicobar Islands\_and Delhi **using data, graphs, and mathematical concepts.**

**Instructions:** - Study the following three major parameters of cultural diversity of Andaman- Nicobar Islands and Delhi in details.

i)Religious diversity

ii)Linguistic diversity

iii)land-use pattern

Prepare a 8-10 pages of project report in MS-word containing the following sub-topics.

**A. Introduction:** - A short introduction of your project report.

**B. Data collection-** Collect and represent data in tabular form on related aspects like religious composition, linguistic groups, land use breakdown etc. (with pictures).

**C. Graphical representation:** -Apply percentages, ratios and other mathematical calculations on collected data and represent them graphically by pie charts, bar graphs, double bar-graphs, histograms etc.

**D. Interpretation of graphical data**

**E. Conclusion:** Conclude your project report by explaining how Mathematics helps us to see unity in diversity through numbers.

**2. Art integrated activity-** Draw a colourful poster on the following topic on an A-4 sized sheet.

a) square root spiral (Roll no.1-7)

b) Effective study habits for maths (Roll no.8-14)

c) Circular geometric motif (Roll no. 15-21)

d) Mathematics in sports (Roll no.22-29)

## **SCIENCE**

1. Prepare a project (4 to 6 pages on A4 size sheet ) on the topic “A Comparative Study of the Scientific Diversity of Andaman Nicobar Islands, Lakshadweep island and Delhi and Its Influence on Human Life”

### **Guidelines for students:**

The topic includes the following headings:

- Scientific Comparison of Agricultural Practices and Food Resource
- Environmental Diversity and Its Impact on Human Life
- Transport Systems and Scientific Challenges in Different Regions.

2. Learn and revise all the topics covered in April and May.

3. Students are hereby instructed to take a clear printout of the worksheets for Physics, Chemistry, and Biology, complete all solutions with neatness, accuracy, and proper presentation, and submit the duly completed worksheets along with the assigned project.

**NOTE: Worksheets are attached after the holiday home work. Take a printout and then solve them (biology), in classwork register (physics and chemistry).**

## **PHYSICS**

**Q1.** Make a chart of important formula and equations from chapter Motion.

**Solve the given worksheet in your physics register.**

**1.** Fill in the blanks-

1. A car starts at rest and travel a distance 20 m in 1 sec .The car average speed is \_\_\_\_\_
2. Motion of earth around sun is an example of \_\_\_\_\_ motion
3. Tractor moving with 18 km/h is \_\_\_\_\_ then car moving with 1500 m/min
4. The motion of a free-falling body is an example of \_\_\_\_\_ motion
5. The curved speed time graph represent \_\_\_\_\_ accelerated motion
6. Distance is a \_\_\_\_\_ quantity while displacement is a \_\_\_\_\_ quantity

**2.** State whether true or false-

- a. Displacement cannot be zero
- b. Average speed= Total distance/time
- c. Average velocity = Total displacement /time
- d. slope of distance-time graph indicates the speed
- e. It is possible to have Object moving with uniform speed but variable acceleration.
- f. It is possible to have Object moving with uniform velocity but non-uniform acceleration.

**3.** Answer the given question as per the information given- A particle starts from rest and moves with a uniform acceleration of  $5\text{m/s}^2$  for 10s and then it moves with a constant velocity for 4s. Later it slows down and comes to rest in 5s. Draw the velocity graph for the motion of the body and answer the following questions:

- a. What is the maximum velocity attended by the body?
- b. What is the distance travelled during this period of acceleration?
- c. What is distance travelled when the body was moving with constant velocity?
- d. What is the retardation of the body while slowing down?
- e. What is the distance travelled by retarding?
- f. What is the total distance travelled?

## **CHEMISTRY**

**Solve the worksheet in your chemistry register.**

**Q1. Solve the following problems:**

- (i) A cake recipe uses dry ingredients, namely 75 g of sugar for 420 g of all-purpose flour and 5 g of sodium hydrogen carbonate. Express the concentration of each component in the mixture using an appropriate method.

(ii) Clouds are made up of tiny water droplets or ice crystals floating in the air. Based on what you know about solutions, suspensions and colloids, what type of mixture do you think clouds are and why?

(iii) Why do cities with a lot of smoke and dust in the air often look hazy.

**Q2.** Two miscible liquids, A and B, are present in a mixture. The boiling point of A is 60 °C and the boiling point of B is 90 °C. Suggest a method to separate them. Also, draw a labelled diagram of the method suggested.

**Q3.** Three students, A, B and C, are preparing sugar solutions for an experiment: Student A dissolves 20 g of sugar in 80 g of water. Student B dissolves 20 g of sugar in 100 g of water. Student C dissolves 30 g of sugar in 80 g of water.

(a) Calculate the mass percentage (% m/m) concentration of sugar in each student's solution.

(b) Whose solution is the most concentrated? Explain why.

(c) How does solubility change if the solution is taken at higher temperature?

(d) Give five points of difference between solute and solvent.

**Q4.** Compare evaporation, crystallization and distillation. In which situation, would you prefer each of these over the others?

**Q5.** Blood is an example of a colloidal mixture.

(i) What would happen if blood behaved like a true suspension inside the body?

(ii) In a blood sample, identify the dispersed phase and the dispersion medium.

**Q6.** Name the process associated with the following

(a) Dry ice is kept at room temperature and at one atmospheric pressure.

(b) A drop of ink placed on the water's surface contained in a glass spread throughout the water.

(c) A potassium permanganate crystal is in a beaker and water is poured into the beaker with stirring.

**Q7.** Smoke and fog both are aerosols. In what way are they different?

## **BIOLOGY**

**Q1. Choose the correct option:**

(i) Which organelle modifies and packages proteins?

a) Mitochondria

b) Golgi apparatus

c) Ribosome

d) Lysosome

(ii) Which structure is absent in animal cells?

a) Cell membrane

b) Cell wall

c) Cytoplasm

d) Nucleus

(iii) Which process requires energy?

a) Diffusion

b) Osmosis

c) Active transport

d) Facilitated diffusion

(iv) Which organelle contains digestive enzymes?

a) Lysosome

b) Ribosome

c) Vacuole

d) Nucleus

(v) Which cell organelle is involved in photosynthesis?

- a) Mitochondria
- c) Nucleus

- b) Chloroplast
- d) Endoplasmic reticulum

**Q2. Answer the following questions:**

(i) What is a prokaryotic cell?

Ans:

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(ii) State two functions of the nucleus.

Ans:

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(iii) What is plasmolysis?

Ans:

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(iv) Explain the structure and functions of the plasma membrane.

Ans:

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**Q3. Case based question:**

A student observed onion peel cells under a microscope and noted that after adding concentrated salt solution, the cell membrane shrank away from the cell wall.

(i) Name the process observed.

Ans:

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(ii) Explain why it happens.

Ans:

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(iii) What type of solution causes this effect?

Ans:

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**Q4. Assertion Reasoning Questions:**

Assertion: Diffusion occurs without energy.

Reason: It is the movement of molecules from high to low concentration.

Ans:

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Assertion: Mitochondria are abundant in muscle cells.

Reason: Muscle cells require more energy.

Ans:

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## SOCIAL SCIENCE

1. Prepare a Scrapbook comparing the 'Emerald Islands' of Andaman and Nicobar with 'bustling heart of India' Delhi, offering a brilliant look at how geography shapes culture. Scrapbook should include:
  - Population composition of Andaman and Nicobar and Delhi.
  - Festivals of Andaman and Nicobar and Delhi.
  - Difference in lifestyle
  - Historical monuments

All pictures/ diagrams/maps should be supported with relevant heading and brief description.

2. Collect information from books or reliable digital sources about one early civilization such as Harappan, Mesopotamian or Egyptian. Find out about their food habit, tools and occupations. Compare these with modern life. Prepare a chart showing similarities and differences.

## ARTIFICIAL INTELLIGENCE

### 1) DIGITAL POSTER (use any platform as per your suitability)

**TOPIC:** How AI can help preserve indigenous cultures of Andaman and Nicobar Island?

Include:

- Tribes like Jarawa, Sentinelese, Nicobarese
- Traditional dress, dance, music, food
- How AI can be used for:
  - Language preservation
  - Digital archiving
  - Cultural documentation

**NOTE: Add tribal motifs/border designs.**

- 2) Using MS Excel visualize data on Bar Chart, Area Chart, Pie Chart, Line Chart, Scatter Chart and Bubble Chart (**for idea you can refer page no. 203 of your book**). Take color printout of your work.

**NOTE: Data entry can be done according to you.**

## ART

1. Design Two round Fridge magnets with radius 7 cm on thick ivory sheet depicting the culture of Delhi and Andaman and Nicobar Islands

OR

2. Complete page No. 112 (Madhubani Painting) of your Art book with colour. Prepare an A4 size paper bag and design that bag with this Madhubani painting cutout.

## **PHYSICAL EDUCATION**

1. Write the following practical work in your file and submit it by 15 July 2026.

- (a) Pick any one game of your choice out of the given list. Make a labelled diagram of field and equipment rules, history of games, terminologies & fundamental skills (Basketball, football, kabaddi, kho-kho, volleyball, handball, cricket)
- (b) Sports personalities/awardees of the game/sports
- (c) Fitness tests administration (SAI Khelo India Test)
- (d) Procedure for Asanas, benefits and contraindication for any 5 asanas for each lifestyle disease.
- (e) Sports Injuries.

2. Make a chart any one game of your choice out of the list above. Labelled diagram of field and equipment rules, terminologies & skills (basketball, football, kabaddi, kho-kho, volleyball, handball, cricket and Sports and games for children with special needs)

3. Prepare a report of visit to any one for the following:

Open tournament/competition of any game/sports/fitness centre/Zonal /Delhi state games