

St. Margaret Sr. Sec. School

Prashant Vihar, Delhi-110085

2023-24

## HOLIDAY HOMEWORK CLASS – IX

# SUBJECT – ENGLISH

Your holidays homework this year is a fun mix of all the aspects of the language. It has been designed to ensure that you enjoy and learn at the same time.

1. 1. Create a Menu Card for Andaman and Nicobar Islands Cuisine. It should have the nameof your restaurant, logical sections, photos, illustrations, price list, typography, a good colour scheme; it should be attractive and not less than atleast 3 pages.

2. Write bio-sketch, major works, achievements, centralidea of the poems of your favourite poet on an A3 size sheet. It must have picture of the poet and decorated beautifully.

CARE

3. Read the Newspaper regularly during the holidays.

4. Revise the entire syllabus done till the month of May.



# SUBJECT – HINDI

- 1. PT-1 परीक्षा हेतु पठित कार्यों को दोहराड्ए।
- 2. 'विश्व-क्षितीज पर हिंदी का स्थान' विषय पर सचित्र रिपोर्ट हिंदी रजिस्टर में तैयार करिए।

3. 'उत्तम आहार: स्वस्थ जीवन का आधार' विषय पर दो रंगीन व आकर्षक स्लोगन A-4 sheet पर बनाइए ।



4. प्रतिदिन समाचार पत्र पढ़िए तथा अपने शब्द भंडार का विस्तार करते हुए 10 पृष्ठों का एक शब्दकोश तैयार करिए।

5. प्रथम एवरेस्ट महिला पर्वतारोही बचेंद्रीपाल की संक्षिप्त जीवन-यात्रा वृतांत तथा कोलाज हिंदी रजिस्टर में बनाइए।

## SUBJECT - SANSKRIT

1- पञ्च अपठितगद्यान्शम् पञ्च चित्रवर्णनम् स्व उत्तर पुस्तिकायाम् लिखत 2- "शिव तांडव स्तोत्रम्" अथवा "रुद्राष्टकम्" स्मरत ।

3- अंडमान प्रान्तस्य जनानाम् जीवनपरिचयस्य/स्मारकस्य विषये सचित्र व्याख्या कुरुत। 4-दश श्लोकाः लिखत चित्रं निर्माणं कुरुत। (विभिन्न श्लोक लिखकर चित्र सहित अर्थ लिखिए) 5- एक संस्कृत परियोजना नाम से फोल्डर बनाएं उसे सजाएं तथा उसमे अपने अच्छे कार्यों का प्रमाण रखें।

## SUBJECT : MATHS

1) Design a crossword puzzle using mathematical terms/ words. (at least 15 terms)

2) Create your own case study based 5 questions on Heron's Formula (each question carry atleast 4 parts)

3) Do revision of topics covered Number system and Heron's formula from Maths assignment booklet. (Separate note book) ret Sr. Sec. School

Project

- 1. MAKE A MATHS ART INTEGRATED PROJECT ON DELHI AND LAKSHADWEEP (INTRODUCTION OF STATES, COMPARSION OF RELIGIONWISE POPULATION (2015-2022), Languages spoken USING CIRCLE GRAPH (PIE CHART) in spiral file.
- 2. It should contain INDEX, ACKNOWLEDGEMENT, CONTENT AND BIBILOGRAPHY (No. of pages 8-10)



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## SUBJECT - SCIENCE

#### Biology

- 1. Activity to study osmosis using potato. Procedure
- Prepare three different saltwater solutions. Label the three cups with "0 grams", "2 grams", and "4 grams". To each of the cups, add 100 mL of distilled water.
- Weigh out 2 grams of table salt and add it to the cup that says "2 grams". Then weigh out 4 grams of table salt and add it to the cup labeled "4 grams". Use a spoon to mix the solutions until all the salt is dissolved.
- Use the apple corer or cork borer to prepare at least three potato cores. Ideally, you prepare 9 cores, so you can do your experiments in triplicates. Push the corer or borer all the way through the potato and remove the core carefully so the potato piece stays intact. Alternatively, you can cut the potato into strips that should all have the same dimensions. They should be at least ½ inch thick and two inches long.
- Create a table where you can enter the starting measurements (length and diameter) and end measurements of each potato strip for every salt concentration (0, 2 and 4 grams).
- Then take a ruler and cut each of the strips into exactly the same length (to the millimeter). Enter the start length of each potato strip into the table.emove the potato skin from your cores or strips and rinse them quickly with water.
- With a ruler measure the diameter or width of each potato strip as well. Again, enter your measurements into the table.
- Put one potato strip (or three if you do triplicates) into each of the cups with saltwater. While you do that, feel the potato strips with your fingers and try to flex them a little bit.
  - After 30 minutes, inspect the potato strips inside the saltwater solution.
  - Take the potato strip(s) out of the "0 grams" cup and place them on a paper towel. While doing that, feel them again and try to bend them slightly.
  - Use the ruler to measure the exact length and diameter (to the millimeter) of each of the potato strips and write the results in your table.
  - Repeat the same steps with the potato strips in the 2 grams &4 grams cup. Again, write your results into the table.

How did the length and diameter of the potato strips change in each cup? Can you explain your results?



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- 1. Name the cell without membrane bound nucleus.
- 2. What are membranes bound structures in a cell called?
- 3. Name the functional segment of DNA that carries genetic information.
- 4. Where are proteins synthesized inside the cell?
- 5. Mitochondria is called the power house of the cell. Give reason.
- 6. What is Chromatin material and how does it change just before the cell division?
- 7. Nucleus is called the director of the cell. Justify the statement giving reasons.
- 8. Give four differences between prokaryotic and eukaryotic cells.
- 9. What is the meaning of division of labour? Is it different from cell to cell?
- 10. Draw the nucleus of a cell and label the:
- a) Double layered structure which encloses the nucleus.
- b) Visible entangled mass of thread like structures.
- c) A darkly stained round structure inside the nucleus.
- 11. What does DNA molecule contain?
- 12. Give one difference between cytoplasm and nucleoplasm.
- 13. In what two ways osmosis is different from diffusion.
- 14. What will happen when:
- a) Dry apricots are left for some time in pure water and later transferred to sugar solution?
- b) A red blood cell is kept in concentrated saline solution.
- c) Rheo leaves are boiled in water first and then is placed in the sugar syrup.
- 15. Look at the figure:



a) Name the process.

b) Identify the organism shown in the figure.

c) It shows the nature of cell membrane as : (rigid/flexible). Explain the role of cell membrane undergoing this process.

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Chemistry

- 1. Make a project on any one of the following
- a. Panch Tatva
- b. Physical Nature of Matter
  - c. What led scientists to evolve the concept of atom?

Instructions

- Must be submitted in a leaf file.
- Minimum number of pages -3

2. What happens when an inflated air balloon is pricked with a pin? Name the property of the gaseous state exhibited by this observation.

- 3. Name the state of matter in which:
  - (i) Layers of particles can slip and slide over one another easily.

(ii) Particles just move around randomly because of very weak force of attraction.

- 4. In which of the following, the particles have highest forces of attraction? Water, NaCl (solid), ice or, wax.
- 5. Can materials exist in all the three states? Explain
- 6. Kinetic energy of particles of water in three vessels A, B and C are EA, EB and EC

respectively and  $\overrightarrow{EA} > \overrightarrow{EB} > \overrightarrow{EC}$ . Arrange the temperatures, TA, TB and TC of water in the three vessels in increasing order.

7. Analyse the temperature versus time graph of water, given below.



Which region contains all liquids?

8. Why do solids have a regular geometrical shape?

### **Physics**

- Make a working model on types of motion.
- Make a project on any one of the following position-time graph velocity time graph.

Instructions for project:

• It should be handwritten.



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- Must be submitted in a leaf file.
- Minimum number of pages -6
- Make PPT on any one of the following distance and displacement motion in everyday life. Instructions for ppt:
  - Font size should be easily visible.
  - Minimum no. of slides -8.

Solve these questions in your physics register.

- 1. Calculate the acceleration and distance of the body moving with 5m/s2 which comes to rest after traveling for 6sec?
- 2. A bus has a speed of 36km/hr. Find the distance covered by this bus in 5 minutes.



- 3. The velocity-time graph of two bodies A and B traveling along the +x direction is given in the figure.
- a. Are the bodies moving with uniform acceleration?
- b. Which body is moving with greater acceleration A or B?



**T**wo boys A and B, travel along the same path. The displacement – time graph for their journey is given in the following figure.

- a. How far down the road has B travelled when A starts the journey?
- b. Without calculation, the speed, state who is traveling faster A or B?
- c. What is the speed of A?
  - 5. A body is dropped from a height of 320m. The acceleration due to the gravity is 10m/s<sup>2</sup>? How long does it take to reach the ground?
  - 6. Answer these questions:
  - 7. (i) An object moves on a circular path of radius r. Calculate the distance and displacement when it completes a half revolution.



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(ii) Give the name of the physical quantity, which corresponds to the velocity change rate. Give its SI unit.

(iii) Why is motion in a circle with constant speed called accelerated motion?

- A boy throws a stone upward with a velocity of 60m/s. 8.
- How long will it take to reach the maximum height( $g=-10m/s^2$ )? a.
- What is the maximum height reached by the ball? b.

A signal from a spaceship reached the ground station in 5 minutes. Calculate the distance 9. of the spaceship from the ground station.

A cyclist travels a distance of 4 km from P to Q and then moves a distance of 3 km at a 10. right angle to PQ. Find his displacement.

## SUBJECT - SOCIAL SCIENCE

## I. Prepare a project on Disaster Management on the topic: 2023 Turkey–Syria Earthquake

- 1. The project will be made on A4 sheets. Total number of pages-8
- 2. It should be a handwritten project.
- 3. Use pictures, graphs and newspaper articles.

4. The project should be tied with a tag. Do not use any folder or do spiral binding.

#### **Instructions:**

Page 1- Cover page: Your name, class section, roll no., Session 2023-24

Page 2 – Acknowledgment

Page3- Index

Page 4- Introduction: meaning of disaster and

Pages 5 to 7 – About Türkiye Earthquake disaster: causes, effects, Mitigation or preventive

measures and the role of India in helping Turkey.

Page 8 - Bibliography (List of books, sites used as reference)

LAST DATE OF SUBMISSION: 18 July

**Revise Chapter 1 – Size and Location for PT-1** II.

## **INTERDISCIPLINARY PROJECT – IX (SOCIAL SCIENCE)**

Prepare an interdisciplinary project based on Forests and wildlife. The project is divided into three parts - Geography, History and the Art Integration. Students will conduct research and do the written part of the integrated project on the given topic.

Geography-. Discuss the characteristics of tropical evergreen forests, including their 1. climate, soil, and flora/fauna. Students will research specific examples of tropical evergreen forests and the challenges they face, such as deforestation and climate change in Andaman and Nicobar Islands. The word limit is about 200-300 words.

\* The project will be prepared in the school between July 10 to July 15,2023 History-



### **I:FORESTRY IN INDIA-**

- Traditional uses of forests/forest products in India
- Scientific forestry in India by the British
- Measures taken to save wildlife and forests in India

II:Learn L-1 French Revolution,L-1 The story of village Palampur,L-1 What is democracy for PT1

#### Art Integration- Prepare a document on Uses of forest and wildlife in indigenous Art 2. & Crafts of Andaman and Nicobar.

Instructions:

Cover page: Your name, class section, roll no., Session 2023-24

- 1. All activities of interdisciplinary project of Social Science will be done in one scrap book .
- 2. The project will be made in a scrapbook of 12-15 pages.
- 3. It should be a handwritten project.
- 3. Bring relevant map, pictures and information, graphs and newspaper articles etc.

## SUBJECT - ARTIICIAL INTELLIGENCE

- A.Explore any 3 AI based apps. Collect details about its features/application areas/limitations/future scope. Design a Presentation using the above information collected. (Not more than 10 slides) Information collected should be crisp, useful and reliable.
  - Printout of the presentation to be pasted in your project file. Sec. School
- B.Read the following chapters: Part A- Ch-1 Communication Skills-1
- Ch-2 Self Management Skills-1 C.Prepare a debate/blog on the topic

### "Robots are not going to replace humans, they are going to make their jobs much more humane."

D.Practice Python programs, syntax and codes discussed in class.