



RUKMINI DEVI
PUBLIC SCHOOL
The School with a difference
Under the aegis of Son Patkhal Nriyal Educational Society

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Winter Holidays HomeWork

CLASS - IX

Holidays are a well deserved opportunity to relax and rewind by indulging in activities that are pleasurable and also educative. You must enjoy your break but at the same you must also give proper attention to your studies.

Dear students : -

1. Neatness and presentation are the common parameters for the assigned work. Please maintain the quality of work done.
2. All the written work should be done on A4 size sheets.
3. Complete and submit the holiday homework according to the dates given by the subject teachers.
4. Ensure to strike a balance between your leisure time and studies.
5. Highlight areas of doubt and clarify with the teachers after vacation.
6. Develop a reading habit & refer to different books for strengthening the conceptual knowledge.
7. Stay safe and be good.

SCIENCE

Q 1 Activity : My Element

Choose any element of your own choice and find out following information about it :

- Discoverer
- Year of discovery
- Who named it ?
- Occurrence
- Where can you find it around you easily?
- Physical and chemical properties

Note: Do this activity on A4 size sheets and stack them neatly in a folder. (Minimum pages 3)

Q2. a. Explain the types of Plastids in brief.

- b. Explain the functions and structure of Golgi bodies.
- c. What is a nucleoid?
- d. What is the difference between plant cells and animal cells?
- e. What are suicidal bags (lysosomes)?
- f. What is the function of chromosomes?
- g. Name the smallest cell in the human body?
- h. Which is the largest cell in the human body?
- i. Why are plant cells more rigid than animal cells?
- j. Explain the process of osmosis in detail.
- k. Draw and label diagrams of plant cells and animal cells.
- l. Write four differences between bone and cartilage.
- m. Write the functions of cartilage.
- n. Write the difference between xylem and phloem.
- o. What is stomata?

Q3. In a factory four bulbs of 100 W each and five fans of 110 W each operate for 12 hours daily. Calculate the units of electricity consumed? Also find the total expenditure if one unit costs 2.50 rupees?

Q4. Illustrate the law of conservation of energy by discussing the energy changes which occur when we draw a pendulum bob to one side and allow it to oscillate. Why does the bob eventually come to rest? What happens to its energy eventually? Is it a violation of the law of conservation of energy?

Q5. Derive an expression for potential energy. Write its SI unit.

MATHS

1. Design crossword puzzles using mathematical terms/words.
2. Do a brief research on Introduction to Euclidean Geometry and write your findings in your fair
3. Perform the following activities in your 'Math Lab Manual'. Make sure to include the following
 - (i) Objective
 - (ii) Material required, if any
 - (iii) Method of construction, if any
 - (iv) Demonstration
 - (v) Observation
 - (v) Application

Activity 1: To make a square root spiral by using paper folding.

Activity 2: To verify the identity $(a + b)^2 = a^2 + 2ab + b^2$ by paper cutting and pasting.

Activity 3: To verify that in a triangle, the line joining the mid-points of any two sides is parallel to the third side and half of it by paper folding and pasting.

Activity 4: To verify that the angle subtended by an arc at the center of circle is double the angle subtended at any point on the remaining part of the circle, experimentally.

For Help: (<https://www.cbse-samplepapers.info/cbse-class-9-maths-lab-manual>)

4. Revise Ch 1, 2, 6, 7, 8, 10, 13 & 14 in practice Notebook.

SOCIAL SCIENCE

1. Revise all chapters done in class.

2. Make a project on **Disaster Management** on A4 Sheets.

(Meaning, Causes, Effects and Preventive measures)

Instructions:

Only hand written projects will be entertained.

(i) Data, facts, can be used. Flowchart, Images and case studies can also be used, to make them more attractive.

(ii) It is important for students to write cases related to the above topic with pictures.

(iii) Minimum pages- 10

(iv) Quality content and research work should be equally emphasized by the students. Marking will be done on the basis of the same.

3. **Map work:**-Locate and Label following points

HISTORY:-On outline Political Map of France (For locating and labeling / Identification)

Bordeaux, Nantes, Paris, Marseilles

Outline Political Map of World (For locating and labeling / Identification)

Major countries of First & second World War

GEOGRAPHY:-(Outline Political Map of India)

India-States with Capitals, Tropic of Cancer, Standard Meridian (Location and Labeling)

Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western & Eastern Ghats

Mountain Peaks – K2, Kanchan Junga, Anai Mudi

Plateau - Deccan Plateau, Chota Nagpur Plateau, Malwa Plateau

Coastal Plains - Konkan, Malabar, Coromandal & Northern Circar (Location and Labeling)

Rivers: The Himalayan River Systems & The Peninsular Rivers

Vegetation Types of India (Montane, Evergreen, Deciduous, Thorn and Scrub and Mangrove forests)

National Parks: Corbett, Kaziranga, Ranthambore, Shivpuri, Kanha, Simlipal & Manas

Bird Sanctuaries: Bharatpur and Ranganthitto

Wild Life Sanctuaries: Sariska, Mudumalai, Rajaji, Dachigam (Location and Labeling)

The state having highest and lowest density of population

हिंदी

पुनरावृत्ति कार्य : पुनरावृत्ति हेतु PT-2 पाठ्यक्रम और व्याकरण कार्यपत्रिका दोहराएँ ।

गतिविधि 1

अपनी पाठ्य पुस्तक 'स्पर्श', पूरक पुस्तक 'संचयन' के TERM-2 में आए प्रत्येक पाठ से 5 शब्द स्वर संधि के प्रत्येक भेद के अनुसार और अर्थ के आधार पर प्रत्येक भेद के 2 वाक्य छाँट कर उत्तर पुस्तिका में लिखिए ।

गतिविधि 2

'मेरे विद्यालय का वार्षिकोत्सव' विषय पर अनुच्छेद लिखिए ।

English

1. Read the newspaper and write only one news article under the given headings like National International, Sports, Glamour and Business. Write your views.

- a) Computers are a storehouse of knowledge and wisdom and they are hazardous too. Write an article on the topic "The benefits and harms of computers." Word limit is 180-200 words.
- b) You encountered two strange people. They were different from normal human beings but they were quite interesting and exciting. As Manish/Manisha using your ideas, write a story in about 150-200 words narrating your experience with them.
- c) Write a self composed poetry on the given topics with minimum 4 stanzas.
 - Music
 - I am blessed
 - My school My pride

Note- Do the given homework in an A4 size ruled sheet.