NEW ERA PUBLIC SCHOOL

Class-VIII Holiday Homework

Integrated Project – <u>Theme: - "Homes/Air/Electricity/Sunlight"</u>

A home is a place of residence or refuge. When it refers to a building, it is usually a place in which an individual or a family can live and store personal property. It is generally a place to provide safety and is used as a center from which people or animals base their daily activities. Most modern-day households are fitted with electrical appliances, have windows for good air circulation and contain sanitary facilities and a means of preparing food. Class 8 holiday homework will focus largely on "Home". English and Hindi home-works are all about families residing in homes joint and nuclear —article writing, poem etc. Math will focus on dimensions, area etc of a house. Science homework deals with all the electrical appliances and the energy they consume whereas Social Science deals with air and air pollution. The homework for all subjects will be done in one scrap file. Where work is to be done on chart paper etc, separate instructions have been given.

Subject: English

Project 1 for first half of the class

a. Write an article comparing **Joint families with Nuclear families**. Gather information on the kind of families that one finds in towns and villages as compared to big cities. Mention the advantages/disadvantages of both kinds of family system.

b. Draw a sketch of your house and describe it. Make it colourful. Who is the role model for you in your family? Write about that person in about 80-100 words. Make a relationship chart of the members of your family.

c. Make a list of 10 words from your text book and create a mini dictionary of antonyms in your scrap book.

d. Read the newspaper every day and cut out at least 10 news items which have had an impact on you as a teenager. Paste them in your scrap book.

Project 2 for second half of the class

a. A house of bricks and mortar becomes a home because of people living in it and how they care for each other. Write an article on the importance of values in a family. What are these values which make a family happy and peaceful**?**

b. Describe your dream house. Describe the kind of rooms you would like, the color on the walls, the location etc. Write a poem along with it on the title '**My house would be…**'

c. Make a list of 10- words from your text book and make a mini dictionary of antonyms in your scrap book.

d. Read the newspaper every day and cut out at least 10 news items which have had an effect on you as a home owner. Paste them in your scrap book.

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Subject: Mathematics

I.   Project

A

i   Prepare a model of a house according to your requirements:
1.   100 sq. meters R.No. 1 – 5
2.   150 sq.meters R.No. 6 – 10
3.   200 sq.meters R.No. 11 – 15
4.   250 sq.meters R.No. 16 – 20

ii   Prepare a sketch of a house according to your requirements:
1.   100 sq.meters R.No. 21 – 25
2.   150 sq.meters R.No. 26 – 30
3.   200 sq.meters R.No. 31 – 35
4.   250 sq.meters R.No. 36 – 40
5.   300 sq.meters R.No. 41 – 45

Use a suitable scale on a sheet of size 45 cm $\times$ 30 cm.

B   All the students have to answer the following question:

Q1 The dimensions of a room are $6\,m \times 5\,m$. One of the walls has square window of side 0.7 m mounted by a semicircle. The room has two doors each of dimensions $2\,m \times 0.9\,m$. Find the cost of
   i   White washing the four walls and ceiling at the rate of   Rs.245 per sq. meter.
   ii   Polishing doors at the rate of   Rs.125 per sq meter.
   iii   Polishing the window at the rate of Rs. 85 per meter.

Q2 Now note the dimensions of bedroom and living room in your sketch/model and find the cost of white washing the four walls and ceiling at the rate of Rs.245 per sq. meter.

Q3 The length and breadth of a painting are $24\,cm\ and\ 20\,cm$ respectively. Find the side of a square painting whose area is equal to the area of the rectangular painting.

Q4 If a carpet of dimensions $2.1\,m \times 45\,cm$ is placed in the centre of the floor of a room of dimensions $4\,m \times 4\,m \times 5\,m,$ find the area of the remaining room to place a sofa set.

Q5 In a mixture of paint, 1 part of blue pigment is to be mixed with 2 parts of yellow pigment and 7 parts of white pigment. Complete the table using the above information:

Part of blue	48		5		2.7		
Part of white		0.04				3.76	
Part of yellow				0.56			385

Q6 The daily wages in rupees) of 10 labourers are as follows:
200,225,195,180,450,320,410,250,175,230.
Find the mean and median of the above data.

Q7 10 men can build a wall working 6 hours a day in 16 days. In how many days can the work be completed by 12 men working 8 hours a day?

Q8 A person spent Rs.10, 00,000 for constructing a floor. He spent Rs.1, 00,000 on the wooden work; Rs. 50,000 on white wash; Rs. 30,000 on the electrical connection and wiring and Rs.20, 000 on other items. Now he has decided to sell the house at a gain of 5%. Find the selling price of the floor.

Q9 The owner of the house lent his house on rent at a rate of Rs.15, 000 per month. If the rate of rent increases by 5% after every 11 months, then how much rent would he pay in the 35th month?

Q10 An electronic fan ma rked at Rs. 940 was sold for Rs 799. Calculate the discount and discount %.

Q11 A dart board with 6 different colours – red, green, yellow, blue, black and white is hung on one of the walls of the lobby. If a dart is thrown then find the probability of hitting the dart on
- i   Red colour
- ii   Green color
- iii   Blue or Black colour
- iv   purple colour

Make a chart on the following topics:

R.No.	1 – 5	6 – 10	11 – 15	16 – 20	21 – 25
Topic	Area of trapezium	Algebraic Expression	Factorization	Profit and Loss	Cubes and cube root

R.No.	26 – 30	31 – 35	36 – 40	41 – 45	45 – 50
Topic	Family of Quadrilaterals	Surface area and Volumes	Data Handling	3 – D Figures	Squares and Square roots

II.   Assignment

1. The sum of two rational numbers is -6. If the first number is $\left(\frac{-23}{5}\right)$, find the other?

2. What should be subtracted from $\left(\frac{-7}{33}\right)$ to get $\left(\frac{-4}{11}\right)$?

3. Simplify : $\left(\frac{-4}{3}\right) + \left[\left(\frac{-12}{5}\right) - \frac{6}{7}\right]$

4. Find the sum of multiplicative inverse of $\left(\frac{-9}{13}\right)$ and the additive inverse of $\frac{5}{6}$.

5. Represent $\left(-1\frac{7}{8}\right)$ on the number line.

6. Product of two rational numbers is -6. If one o f the numbers is $\left(\frac{-9}{8}\right)$, find the other number.

7. Mona's father is thrice as old as Mona. After 12 years he will be just twice his daughter. Find their present ages.
8. The first three terms of a proportion are 3, 5 and 21 respectively. Find its fourth term.
9. PQRS is a quadrilateral whose angles are in the ratio 1:3:7:9. Find the measure of each angle. What type of quadrilateral is it?
10. The length of a rectangle is 8cm and each of its diagonal measures 10cm, find its perimeter.
11. An angle of a parallelogram is two third of its adjacent angle. Find all the angles of the parallelogram.
12. In the parallelogram PQRS, give reason for the following:
    i   Is PS = PQ?
    ii Is RS = PQ?
    iii Is angle PQR = angle PSR?
13. If one angle of a parallelogram is 82°, find the remaining angles.
14. If perimeter of a rhombus is 48cm.What is the value of each side?
15. A coin is tossed 38 times. Tail is obtained 26 times. What is the probability of getting a head?
16. In 246 throws of a die, '3' was obtained 167 times. In a random throw of die, what is the probability of
    i   Getting a '3'?
    ii Not getting a '3'?
17. In an examination, 94% of the candidates passed and 11 failed. How many candidates appeared?
18. 1/5 of a number is 60. What is the number?
19. Find the volume of a cube of side 6m and the volume of a cuboid of dimensions 6cm x 11cm x 14cm.
20. Find three consecutive even numbers whose sum is 96.
21. Evaluate: $\left[\left(\frac{-5}{6}\right)^{\frac{2}{3}} \times \left(\frac{-5}{6}\right)^{\frac{-4}{5}}\right]^{-1}$
22. Find: i) $\left\{\left(\frac{4}{-3}\right)^{-3}\right\}^{2}$ ii $\left[\left\{\left(\frac{-1}{}\right)\right\}\right]$
23. Solve for x: $\left(\frac{3}{2}\right)^{-3} \times \left(\frac{3}{}\right)^{5} = \left(\frac{3}{}\right)^{2x}$
24. Simplify:
i) $((6)^{-1} - (8)^{-1})^{-1} + ((2)^{-1} - (3)^{-1})^{-1}$
ii) $((3)^{-1} + (4)^{-1})^{-1} \times (5)^{-1}$
iii) $2^3 + 3^4 \times 4^5$

Subject: Science

The students will be instructed to do the following:
- Make a model of a house showing some working models of electrical appliances/devices that run on non-conventional sources of energy like solar, wind, water etc.

A. Electricity

In a project file, draw an electric circuit showing the working of electrical appliances in your house and answer the following questions:
1. Differentiate between conventional and non conventional sources of energy.
2. Which is a better source of energy and why?
3. List a few measures to conserve electricity in your house and in your school.
4. Draw the following table in your file on energy usage per appliance in a day in your house.

Electrical appliance	wattage of appliance	no. of hours used	energy consumed in units	cost in Rs.
Bulbs/CFLs				
Fans				
Refrigerators				
Air Conditioners				
TV/LCDs				
Iron				
Microwave oven				
Blender/Mixer				

5. Enquire about MCBs used in a house. Where are they installed and what is their role in an electric circuit?
6. Is it advisable to use CFL over an electric bulb now-a-days? Justify your answer.
7. What is the significance of red, black and green wire in an electric circuit?
8. Name the various sources of energy used in power generation in your city.
9. i) List a few alternative sources of energy that can be used to generate power in your city.
   ii Why is solar energy and hydel energy considered to be a better option than thermal energy?
10. Is nuclear energy a solution? Comment in about 150-200 words.
11. Write effective slogans on rectangular sheets to conserve electricity and put these on your class board.
12. Collect some facts related to invention of electric bulb. Name the scientist who invented it. Write about 150 words and give a life sketch of the scientist.
13. Is there any difference between 'volt' and 'watt'? Explain your answer.

NOTE:
- 1Kwh=3.6x10^{6}Joules
- 1KW=1000Watts
- 1Hr=60x60 sec
- 1Kwh=60x60x1000=3600000 Joules)
- Power=energy consumed/time taken
- Unit of power=watt/kilowatt
- Unit of energy=joules
- 1Kwh=1unit

B. Air
- In your project file, illustrate activities showing the following properties of air:
  i.   Air has weight
  ii. Air occupies space
  iii. Air supports combustion
  iv. Air exerts pressure

Group I R.Nos. 1-20
- Give reasons:
  1. While flying in an airplane, you find that your fountain pen starts leaking.
  2. Rina's nose started bleeding while moving up a mountain.
  3. I complained of a sudden earache as soon as the plane took off from the airport.
  4. Divers wear special swim suits while diving.
  5. Astronauts wear special space suits while in space.
  6. Air suckers can hold wall clocks and heavy paintings on walls.
- Suggest a few measures to control air pollution in your city.

- Make a survey in your area to check the number of people who are fined per day for not getting their vehicle pollution check done. Find out the names of pollutants for which the pollution check is made. Click photographs showing excess of smoke emission in Delhi. take help from a traffic policeman/ a petrol pump pollution check booth

  Visit websites for more details on the above mentioned topics)

Group II R.Nos . 21 onwards)
- Give reasons:
  1. A balloon filled with Hydrogen gas flies up in the air whereas a balloon filled with air drops down on the earth.
  2. Tyres of Formula-1racing cars) are filled with Nitrogen gas.
  3. Hot air balloons are mostly filled with hot carbon-dioxide and water.
  4. An electric bulb is filled with Helium gas.
  5. Packets of potato chips are filled with Nitrogen gas.
- List a few harmful effects of air pollution in your area.
- Research on 'Marble Cancer' and its effect on Taj Mahal. Paste pictures showing before and after effects of air pollution on 'Taj Mahal' and the major causes behind its present condition. Suggest some effective measures to stop this effect.
- Although rain water is considered to be the purest form of water, yet it falls down on the earth as acid rain. Comment.

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Subject: Social Studies

Project 1 for first half of the class

- ❖ RESEARCH WORK :
  Paste the pictures of different sports/career related to AIR
  a) Airhostes b) Air force c Zorbing d Astronaut e Paragliding f) Pilot g Aeronautical engineer h Aerospace research i) Aviation medicin e.
  If you have a career option related to the above given choices, which one will you prefer and why ?
- ❖ Would life be possible on our planet Earth without the presence of 'Air'?
- ❖ Is development leading to Global Warming? Depict your answer pictographically.
- ❖ Impact of Air pollution is being felt across the globe. Every country has made laws to counter it:
  a. Collect information about the steps taken by our government to reduce air pollution. Use news paper cuttings and articles related to laws on air-pollution passed by the Government of India.
  b. List the steps you can take to contribute towards reduction and prevention of air-pollution.

Project 2 for second half of the class

- ❖ Create a Crossword puzzle using all different terms related to the word 'Air'.
- ❖ Visualize yourself as a Creative Director of an advertising company and then design an advertisement to prevent air pollution. Insert suitable pictures/ sketches/ paper cuttings to make your work attractive.
- ❖ Which city out of the four metros in India is the cleanest, in terms of Air Pollution? Find out the reasons for this.
- ❖ Impact of Air pollution is being felt across the globe. Every country has made laws to counter it:

a. Collect information about the steps taken by our government to reduce air pollution. Use news paper cuttings and articles related to laws on air-pollution passed by the Government of India.
b. List the steps you can take to contribute towards reduction and prevention of air-pollution.

Hindi

क्रमांक – 1-22

क गृह निर्माण के समय पूजा घर, स्नान घर, रसोई घर, और प्रवेश द्वार में वास्तु/ फेंग शुई के प्रयोग संबंधी जानकारी एकत्रित करके लिखें |

ख "अपना घर स्वर्ग समान" विषय पर एक अनुच्छेद लिखें |

ग "घर" शब्द के पर्यायवाची शब्द लिखते हुए दो पुस्तक चिह्न बनाएँ |

घ घर में उगाए जाने वाले उपयोगी पेड़ - पौधे कौन - कौन से होते हैं उनकी सूची बनाएँ और उसे प्राप्त लाभों की संक्षिप्त जानकारी दें |

क्रमांक – 23-43

क दिल्ली में गृहसज्जा सामग्री के लिए प्रसिद्ध पाँच प्रमुख स्टोर बताएँ | उके विषय में संक्षिप्त जानकारी एकत्रित करके लिखें |

ख अपने या अन्य किसी संबंधी के गृहप्रवेश की तस्वीरें लगाते हुए उस समारोह के विषय में एक अनुच्छेद लिखिए |

ग अपने घर के किसी प्रिय कक्ष की तस्वीर खींचकर उसकी पाँच विशेषताएँ लिखिए कि वह कक्ष आपको क्यों प्रिय है ?

घ 'मेरा घर' शीर्षक पर एक कविता लिखें |