



N. M. HIGHER SECONDARY SCHOOL
(RECOGNISED)

RAJEEV GARDEN, LONI GHAZIABAD U.P.-201102

Summer Holiday
Home Work

2024-25

GRADE IX

Name: - _____

F. Name: - _____

Roll No.: - _____ Sec.: - _____





MESSAGE

Dear Parents,

Vacations are not only meant to explore the world outside but also is an opportunity to rediscover ourselves while we stay at home. So, embark on a journey of fun and adventure by reading books, exercising, meditating, dancing and channelizing your energy in a positive manner. The Summer Vacation has begun.

To keep our students engaged in fun-based learning activities we have compiled a set of activities for the \Summer Vacation. You may have to help your child to complete the home-work. Kindly make sure that your child submits the home work to their respective class teacher/subject teachers as per the submission dates suggested.

Principal

Er. Naeem Ahamad,

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N. M. Higher Secondary School,

Rajeev Garden, Loni, GZB. 201102

ENGLISH

1. Do Reading at least 15 minutes daily.
2. A poster on any of your favourite freedom fighter.
3. Write a paragraph on "APJ Abdul Kalam" in 70-80 words in A – 4 sheets.
4. Write 20 new words & frame it in sentence of your own. Daily for 10 days.
5. Revise syllabus covered so far in the class.
6. Write about 5 famous foods of Punjab, Keral and Maharashtra and paste their pictures.
7. Using picture that is given below prepare a story.



8. Make chart on tense and part of speech.
9. Do active passive/passive sentences on A-4 sheets. (All type, at least 80)
10. Read the passage and answer the following questions.

Bob spends most of his day reading books. These books could be of any kind, ranging from fiction novels to books about nature. But his favourite books are mystery novels such as Nancy Drew, A to Z and The Famous Five.

Bob's friends call him a bookworm and tease him about his habit. He is often laughed at because instead of playing video games he spends his free time reading books. While his friends tease him, his parents and teachers are proud of him. They think that reading improves a person's vocabulary and expression.

One day Bob was reading a book about Dinosaurs which really interested him. He read about the T-Rex, Raptors, Dracorex, Troodon and many more. The next week, in a "Just a Minute" competition Bob had to pick up a chit and speak about that topic for a minute. This competition was amongst various schools in his town. To his surprise, his topic was 'T-Rex'. This made Bob very excited because he knew a lot about dinosaurs. Bob spoke very well and focused on the details.

Even though he did well, he was not expecting to win. As the results were being announced, Bob became very nervous. But he got excited when his name was announced for first place. Bob didn't only make his parents proud, but his entire school.

This was the first "Just a Minute" competition the school had ever won. Soon everybody wanted to become Bob's friend. No one laughed or teased him anymore. Bob was happy that his hobby got him success.

Answer the following questions:

1. **What do Bob's teachers and parents think about his habit?**

2. **What do Bob's friends call him and why?**

3. **What surprising event took place during "Just a Minute"?**

4. **What made Bob happy in the end?**

5. **What are Bob's favourite books?**

ACTIVITY

Prepare a Bio-sketch of the BILL GATES which includes the following:

- A. Portfolio/Picture of BILL GATES
- B. Year of birth and death
- C. Personal life
- D. Educational background
- E. Notable works and Achievements

हिंदी

1. लाल किले पर 70-80 शब्दों का लेख लिखिए।
2. जवाहर लाल नेहरू जी के बारे पढ़िए एवं उनके जीवन अपने विचार व्यक्त कीजिए।
3. सूरदास जी की जीवनी अपने शब्दों में लिखिए एवं याद कीजिए।
4. अलंकार,संन्धि,समास तथा उसके प्रकार उदाहरण सहित लिखिए एवं याद कीजिए।
5. 30-30 पर्यायवाची शब्द लिखिए(तीन-तीन) मुहावरे भी लिखिए और याद भी कीजिए (कोई भी 30)
5. नीचे दी गई पिक्चर को देखकर कहानी लिखिए।



SCIENCE

1. Make a poster for saving water.
2. Draw WATER-CYCLE and write down whole process with its explanation.
3. Make a chart on Human's lungs.
4. Revise the syllabus covered so far.
5. Write five do's and don'ts in case of fire.



WORKSHEET 1

1. What is the general name of the materials which contain at least two pure substances and show the properties of the constituents?
2. Which of the following is a mixture? Salt, Air, Water, Alum, Sugar
3. Classify the following into elements and compounds: a. H₂O b. He c. Cl₂ d. CO e. Co
4. Name the property:
 - (a) Which allows metals to be hammered into thin sheets.
 - (b) Which enables metals to be drawn into wires.
5. Which of the following are 'pure substances'? Ice, Milk, Iron, Hydrochloric acid, Calcium oxide, Mercury, Brick, Wood, Air
6. What is the other name for impure substances? Give two examples of impure substances.
7. State three reasons why you think air is a mixture and water is a compound.
8. Explain why, hydrogen and oxygen are considered elements whereas water is not considered an element.
9. Compare the properties of metals and non- metals with respect to
 - (i) malleability (ii) ductility, and (iii) electrical conductivity
10. Choose the solutions from among the following mixtures: Soil, Sea-water, Air, Coal, Soda-water
11. Give two reasons for supposing that water is a compound and not a mixture.
12. List five characteristics by which compounds can be distinguished from mixtures.
13. (a) Differentiate between homogeneous and heterogeneous mixtures.
(b) Classify the following materials as homogeneous mixtures and heterogeneous mixtures. Soda-water, Wood, Air, Soil, Vinegar, Alcohol and water mixture, Petrol and water mixture, Chalk and water mixture, Sugar and water mixture, Copper sulphate solution.
14. Classify the following into metals, non-metals and metalloids: Silicon, Mercury, Diamond, Sulphur, Iodine, Germanium, Sodium, Carbon, Magnesium, Copper, Boron, Helium
15. Draw a flow chart for the schematic representation of different types of matter.

WORKSHEET 2

- Q1.** Which of the following does not impact the evaporation rate?
- (a) Insoluble heavy impurities
 - (b) Wind speed
 - (c) Surface area
 - (d) None of the above
- Q2.** The kinetic energy of the molecule is directly proportional to the
- (a) Atmospheric pressure
 - (b) Temperature
 - (c) Both (a) and (b)
 - (d) None of the above
- Q3.** The phenomenon in which solid directly converts to the vapour state is known as
- (a) Sublimation
 - (b) Solidification
 - (c) Vaporisation
 - (d) None of the above
- Q4.** Which of the following is the correct interpretation of dry ice?
- (a) It is water in a solid-state

(b) It is water in the vapour state

(c) It is carbon dioxide in a vapour state

(d) It is carbon dioxide in a solid-state

Q5. What is the boiling point of water at sea level?

(a) 0 K

(b) 100 K

(c) 373 K

(d) None of the above

Q6. What was the foundation of the elements' classification in ancient times? Name them.

Q7. Fill in the blanks and give a suitable reason for your answer.

(i) With increase in temperature, particles move _____.

(ii) With the rising temperature, the kinetic energy _____.

Q8. Why can we split a piece of chalk into tiny particles on hammering but not iron?

Q9. Find the density of sand with a mass of 208 g ejecting a volume of 80 mL of water.

Q10. Why is liquid classified as a fluid?

Q11. Solid ice float on water. Justify the statement.

Q12. By which physical phenomenon does the fragrance of a burning stick spread?

Q13. Name the physical phenomenon accountable for parching watery clothes. Why does the spreading of clothes increases the rate of drying?

Q14. Which characteristics of gases help in witnessing LPG gas leakage?

Q15. Convert the following to the Kelvin scale.

(i) 65 ° C

(ii) 300 ° C

ART

Make leaves and flower of rose, lotus, sunflower in square, circle, triangle.

Decorate with colour.

Make a Poster on Dowery system.

Draw a bat, ball, umbrella, hockey, lotus do colour also.

HOME SCIENCE

1. 4 दक्षिण भारतीय प्रसिद्ध खाने की बनाने की विधि लिखिए एवं चित्र भी बनाइए।(ए-4 पेपर)

2. अपनी माता जी का एक दिन का घर का काम आप खुद कीजिए तथा अपना अनुभव साझा

कीजिए।

3. अपनी माता की सहायता से गृह-बजट तैयार कीजिए।
4. दूषित पानी से होने वाले रोगों को लिखिए एवं इनके उपचार एवं बचाव भी लिखिए।
5. अपने घर की रसाई की विभिन्न दिक्कतों को समझकर एक आदर्श रसाई की मुख्य विशेषता लिखिए।
6. बेबी स्वेटर बनाने की विधि लिखिए एवं चित्र सहित समझाइए।

MATHEMATICS

1. Learn and write tables 2 to 35, square 1-30, square root 1-20, cube roots 1-15.
2. Complete your notebook.
3. Practice Chapter 1 (Number System), Chapter 2 (Polynomials) in practice notebook.
4. Collect information on two of the famous mathematicians with pictures?
5. Take any 3 gadgets say 3 different mobiles. Find their length and width (Breadth) and height. Find the surface area of the gadget.
6. Draw a bar graph showing yearly growth of internet users in India between 2014 and 2020.
7. Make a wall clock using Roman Numerals. (Use ecofriendly material)
8. Make a short Formula Notebook. (Use A4 or A3 size pastel sheet)

Worksheet 1

Q1. Find x if $27^x = 9/3^x$

Q2. Solve $(\sqrt{5})^7 \div (\sqrt{5})^5 = 5^x$.

Q3. Evaluate $\sqrt[3]{4^2} \cdot \sqrt[3]{8^2}$.

Q4. Find $\frac{1}{x}$ with rational denominator if $x = \sqrt{5} + 2$.

Q5. Arrange the following in ascending order of magnitude : $\sqrt[3]{3}, \sqrt[3]{4}, \sqrt[5]{3}$

Q6. Arrange the following in descending order of magnitude : $\sqrt[8]{90}, \sqrt[4]{10}, \sqrt{6}$

Q7. Find the decimal representation of $2\frac{5}{12}$ and state its type.

Q8. Evaluate $\sqrt[4]{256} + \sqrt[3]{216} - \sqrt[6]{64}$

Q9. Simplify $(\sqrt[3]{\frac{27}{125}})^{-2} \div (\sqrt[3]{\frac{27}{125}})^{-4}$

Q10. Express each of the following recurring decimals as a rational number

i). 0.5

ii). 0.13

iii). 0.341

Q11. Add $2\sqrt{3} + \sqrt{5}$ and $\sqrt{3} - 3\sqrt{5}$

Q12. Divide $12\sqrt{8}$ by $2\sqrt{2}$

Worksheet 2

SECTION-A

1. Write the degree of the given polynomials :

i) $(2x + 4)^3$

ii) $(t^3 + 4)(t^3 + 9)$

2. Write the coefficient of x^4 and x in $4x^3 - 5x^4 + 2x^2 + 3$.

3. Find the zeroes of $f(z) = z^2 - 2z$.

4. Find the product using suitable identities: $(4 + 5x)(4 - 5x)$.

5. What is the value of k in polynomial $x^2 + 8x + k$, if -1 is a zero of the polynomial?

SECTION-B

6. Show that $x + 1$ and $2x - 3$ are factors of $2x^3 - 9x^2 + x + 12$.

7. If $a^2 + b^2 + c^2 = 20$ and $a + b + c = 0$, find $ab + bc + ca$.

8. If $9x^2 + 25y^2 = 181$ and $xy = -6$, find the value of $3x + 5y$.

9. Evaluate using identities:

i) $\frac{7.83 \times 7.83 - 1.17 \times 1.17}{6.66}$

ii) $29^3 - 11^3$

10. Simplify: $(x^2 + y^2 - z^2)^2 - (x^2 - y^2 + z^2)^2$

SECTION-C

11. Evaluate using identities:

i) $(0.99)^2$

ii) 117×83

iii) $(a^2b - b^2a)^2$

12. Simplify :

$$\frac{(a^2 - b^2)^3 + (b^2 - c^2)^3 + (c^2 - a^2)^3}{(a - b)^3 + (b - c)^3 + (c - a)^3}$$

13. Let P and Q be the remainders when the polynomials $x^3 + 2x^2 - 5ax - 7$ and $x^3 + ax^2 - 12x + 6$ are divided by $x + 1$ and $x - 2$ respectively. If $2P + Q = 6$, find the value of a .

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

SOCIAL STUDY

1. प्रथम विश्व युद्ध के बारे में पढ़िए एवं प्रमुख तथ्य एकत्रित करके ए-4 शीट पर लिखिए।
2. भारत के संविधान का अध्ययन कीजिए एवं अपने विचार प्रकट कीजिए।(100-150 शब्द)
3. विभिन्न राज्यों के प्रमुख त्यौहारों की पिक्चर्स चिपकाइए एवं मुख्य तथ्य लिखिए
4. देश के अब तक हुए सभी प्रधान मंत्रियों नाम की सूची तैयार कीजिए पिक्चर भी एकत्रित करके चिपकाइए एवं प्रमुख तथ्य स्पष्ट कीजिए।(जैसे कार्यकाल, न., जन्म स्थान, प्रमुख कार्य, आदि)
5. कक्षा में पढ़ाए गए सभी पाठों का अध्ययन कीजिए।
6. उत्तर प्रदेश के बारे में महत्वपूर्ण सूचना एकत्रित करके साफ-सुथरें लेख में A-4 पेज पर लिखिए। (इतिहास, क्षेत्रफल, राजधानी, प्रमुख नदियाँ, प्रमुख त्यौहार, वर्तमान मुख्यमंत्री, इत्यादि)
नोट:- हाईलइटर एवं स्केच पेन का भी प्रयोग कीजिए।

7. महात्मा गाँधी जी के बारे में अध्ययन कीजिए तथा जीवन, मुख्य घटना, मुख्य आंदोलन, देश की स्वतंत्रता में योगदान, दक्षिण अफ्रीका दौरा पर अपने संक्षिप्त टिप्पणी लिखिए।

Let's be a Helping Hand

1: -This summer let's help the birds/animals by giving them food and water. Place two bowls, one for water and the other for food. Mark your observations. After few days you will notice that the birds and animals eagerly waiting for you and you too will feel very happy.

2: -Value Based

- 1) Greet the person who visits your house by saying Namaste/Assalamwalekum, Hello, etc.
- 2) Help your parents by doing small things like watering the plants, cleaning your bookshelf, keeping the things in proper places, etc.
- 3) Listen to your elders and obey them.
- 4) Spend quality time with your parents, grandparents, etc.
- 5) Be polite while talking to someone or while talking to someone over the phone.

