

Holiday Homework –Class 8

Subject : Science

Chapters: Metals and Non-Metals & Force and Pressure

Activities:

Activity 1: Compare Metals and Non-Metals

Objective: To observe and list the properties of metals and non-metals.

Instructions:

Collect samples or images of materials (e.g., iron nail, aluminum foil, coal piece, sulfur).

Test or research their properties like appearance, conductivity, malleability.

Material	Metal/Non-Metal	Shiny/Dull	Conducts Electricity	Malleable/Not
Iron nail	Metal	Shiny	Yes	Yes
Coal	Non-metal	Dull	No	No

Activity 2: Balloon and Bottle Pressure Experiment

Objective: To observe how air pressure works.

Instructions:

Take an empty plastic bottle and a balloon.

Insert the balloon inside and stretch its mouth over the bottle neck.

Try to blow air into the balloon.

Observe how the air pressure inside the bottle resists the inflation.

Write your observations and explain in 2-3 lines how pressure affects the balloon.

Answer the Following Questions:

1. Name two physical properties of metals.
2. Give two differences between metals and non-metals.
3. What is force? Mention its effect..
4. Define pressure. Write its formula.
5. Why is it difficult to walk on sand with pointed heels?

Subject:-S S T

1. What evil practices according to James Mill dominated the Indian social life before the British came to India?
2. Why do many historians refer to modern period as colonial?
3. Why did the British preserve official documents?
4. What are the physical factors that affect the distribution of natural resources?
5. Why are people considered as resource?
6. What are the major factors affecting soil formation?
7. Why is wildlife important to us?
8. What is democracy?
9. How does the Indian constitutions safeguard the minorities of the country?
10. State the six fundamental rights in the Indian Constitution.
11. Make one of the following posters on a half chart paper:
 - a) Six Fundamental Rights (Title: "Know Your Rights")
 - b) Poster showing different sources of information for modern period of history by pictures.

हिंदी

- (1) हिंदी व्याकरण से अपठित गद्यांश का अभ्यास कार्य:-1,2,3 फाइल पेपर पर करें |(Pg no- 183, 184, 185)
- (2) अपठित पद्यांश का अभ्यास कार्य 1,2 फाइल पेपर पर करें |(Pg no-188,189)
- (3) संकेत बिंदु के अनुसार दिए गए विषय पर 150 शब्दों में निबंध फाइल पेपर पर लिखें।
 - (i) आत्मनिर्भरता
संकेत -बिंदु:- भूमिका, आत्मनिर्भरता का प्रथम अध्याय, स्वावलंबन की शक्ति, उन्नति का मूल मंत्र, उपसंहार
 - (ii) सत्संगति
संकेत -बिंदु:- प्रस्तावना, संगति का प्रभाव व अनिवार्यता, सत्संगति से लाभ, उपसंहार
- (4) किसी एक विषय पर चार्ट पेपर में चित्र बनाएँ और उनके बारे में लिखें:-
 - ऑपरेशन सिंदूर (ii) मातृ दिवस
- (iii) भारतीय सेना की शौर्य शक्ति
- (iv) गीष्मावकाश में मस्ती

Sub - ENGLISH

Reading & Comprehension

- Read any **short story** or a **chapter from any novel** and summarize it in **100–150 words**.
- Pick **ten new words** from your reading and write their **meanings, synonyms, and a sentence** for each.

Writing Skills

- Write a **diary entry** about a memorable day from your holidays.
- Draft a **letter to a friend**, sharing your viewpoints on Indian retaliation against the Pahalgam terror attacks.

Grammar & Vocabulary

- Frame **ten sentences** using different **tenses** (Present, Past, Future).
- Make a **colorful chart/poster** with pictures and words representing **different parts of speech**. Include examples from daily life (e.g., a picture of a cat for “Noun,” someone running for “Verb”).

Sub Computer

Chapter – 01 : Number System

EXERCISE

A. Tick the correct option.

1. In the binary number system the right most digit is called _____
 - a) MSD
 - b) LSD
 - c) BSD
 - d) Base
2. What is the another name or base 2?
 - a) Binary Number System
 - b) Hexadecimal Number System
 - c) Decimal number system
 - d) Octal Number System
3. In hexadecimal Number System, Decimal Number System from 10 to 15 are represented by _____
 - a) Letters E to J
 - b) Letters H, E, X, D, E, C
 - c) Letters U to Z
 - d) Letter A to F
4. The decimal number $(345)_{10}$ is equivalent to _____

- a) $(101011001)_2$ b) $(110111001)_2$ c) $(111011101)_2$ d) $(111110001)_2$

5. In binary addition, $0+1$ is equal to _____

- a) 0 b) 1 c) 10 d) 2

B. Write T for True and F for false :

1. A number system is simply a method of counting.
2. The base of decimal number system is 8
3. In binary subtraction, binary number of lower of lower value is subtracted from the binary number of higher value.
4. The size of the Nibble is 4 bits.
5. The hexadecimal number system consists of 16 digits.

C. Fill in the blanks using the word given below:

Hints : Binary , 0, 8, 10, decimal number

1. In binary subtraction $1-1$ equals to _____
2. The base of _____ system is 10
3. In binary addition $1+1$ is equal to _____
4. The octal number System consists of _____ digits
5. Computer system understand _____ numbers.

D. Short answer type questions :

1. What is an Octal number System?
2. How many bits are there in 1 byte?
3. What do you mean by base in a number system?

E. Long answer type questions.

1. What is number system? Explain
2. What are the rules to convert a decimal number into a binary number?
3. Write the rules to subtract two binary numbers.

G. Competency based/Application based questions.

1. Prashant noticed the given numbers while working, $(256)_8$ and $(2AF)_{16}$ Which number system do they belong to? How can he tell?
2. Yash and Eklavya measured their height and were trying to find the difference in binary numbers. If the difference a 155 millimeters, what will be its binary conversion?
3. Create a Model on any topology using waste materials.

Sub : Maths

1. Find 12 rational number between -1 and 2.
2. Find the largest number of 3 digits which is a perfect square.
3. Find the largest number of 3 digits which is a perfect square.
4. Find the least square number which is exactly divisible by each of the numbers 8,12,15 and 20.
5. Find the least square number divisible by each one is 8,9,10.
6. Find the greatest number of five digits which is a perfect square. Also find the square root is the number so obtained.
7. Find the square root by the long division method.
 - a. 10404 b. 14161 c. 11449 d. 17956 e. 19600
8. Find the square root by the prompt factorisation method.
 - a. 15876 b. 17424 c. 7056 d. 11025 e. 4096
9. Find the square using the column method
 - a. $(96)^2$ b. $(23)^2$
10. Evaluate :

a. v1.0816

b. v0.2916

c. v156.25

d. v9.8596