Dear Shishyans

Namaste

We are sure you all are familiar with the proverb 'Absence makes the heart grow fonder'.

Well, this is exactly the case with us ...our inability to be together in school has indeed made us fonder of each of you and made us realize, once more, how important you are to all of us . You enrich our lives in so many ways and we learn from you just as you learn from us.

We hope you and every member of your family is fine. Take care of yourself and find time to connect with your family members. Make yourself useful at home by doing small chores, be it laying the table, folding your clothes, watering the plants, etc.

In order to ensure that you are fruitfully occupied at home we have decided to send you worksheets every week. Do them carefully in any old notebook or sheets of papers that are available at home. The answers will be sent to you the following week along with a new worksheet.

So get started and let's hope the good times resume soon.

Remember, however grim the situation may seem, the world will bloom once again and so will every bud in Shishukunj !

Class VII   **Subject :** English

Sr. No.	Questions
Q. 1	You have recently developed a new hobby and are really enjoying it . Write a letter to your cousin telling him/her of your new passion. Give interesting details so that your cousin gets interested in it too.
Q. 2	In life we get but a few wonderful opportunities to spend quality time with our family and get to know them closely. Write a diary entry within 80 words sharing your experience of spending quality time with your family.
Q. 3	Alice was a curious and confident girl. One fine day, she decided to clean her bookshelf. As soon as she went in front of it and opened the door............... Complete this story within 120 words. Remember to make it interesting and exciting! Also supply a catchy title to the story.
Q. 4	Science is the basis of the working of the world. Be it a clock or a human being , Science controls it all . Throw light on this statement by writing a paragraph of about 130 words.

Class VII   **Subject :** Maths

Topic : Algebra and Simple Equations

When we write a numerical statement like 3 + 4 = 7, we state the sum of two numbers as another number. In fact, when we add any two numbers we will get a 3rd number. This 2nd statement is a general one and can be written as **a + b = c** , where **a**, **b** and **c** stand for the numbers. This statement is called an algebraic statement or algebraic expression and **a**, **b** and **c** are called variables.
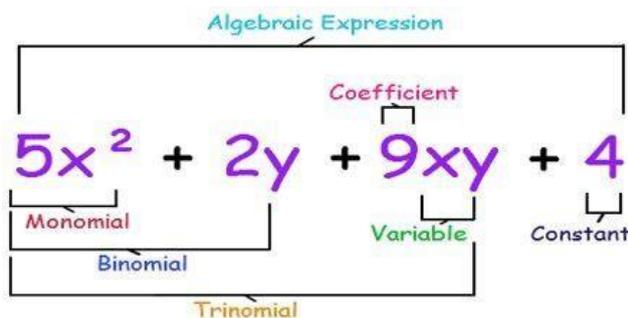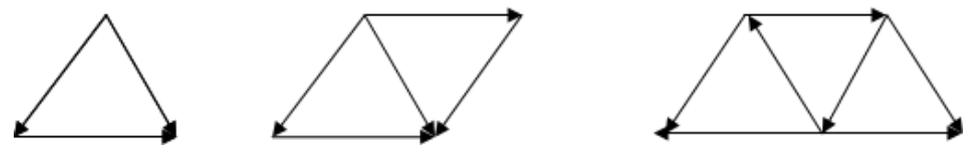
e.g : $3x + 4 = 7$, $x + y = 12$…

An **equation** is a statement of equality which contains one or more unknown quantities.
E.g : $3x + 6 = 4x - 3$, $2x + 4y = 24$ …..

An equation in which the highest power of the variable is 1, is called **Linear Equation.**
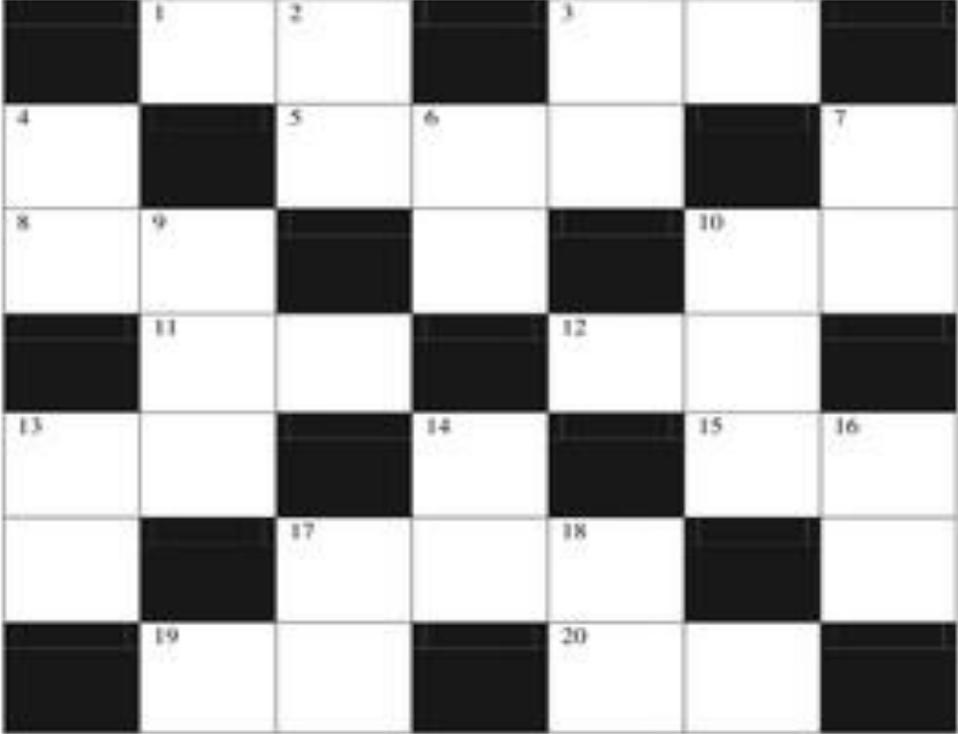E.g : $6x - 3 = 4$, $x + 4 = 9$, $y - 2 = 8$ …

Algebraic Expression

Coefficient

$$5x^2 + 2y + 9xy + 4$$

Monomial   Variable   Constant

Binomial

Trinomial

Sr. No.	Questions
Q. 1	Write equation for the following statements: a) The sum of numbers x and 4 is 9 b) 2 subtracted from y is 8. c) 2 subtracted from four times number P is 18. d) If you add 3 to one – third of x, you get 20.
Q. 2	Observe the pattern of squares (made of matchsticks). The squares are not separate. Two neighbouring squares have a common matchstick.
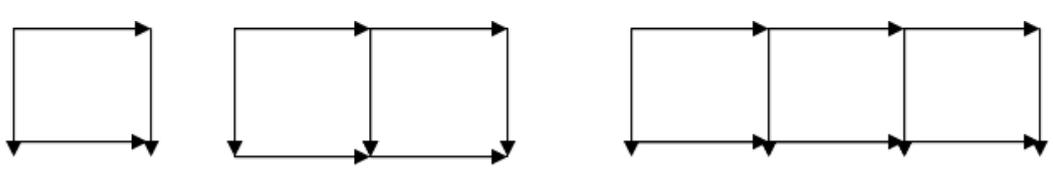
Number of squares	1	2	3	4	……….	n
Number of matchsticks	4	7	10	13	………..	3n+1

The number of matchsticks required to make **n** squares is 3n+1 i.e 3 times no. of squares + 1. Using this find the general rule for the following matchstick pattern.

Q. 3	Leela is Radhika's younger sister. Leela is 4 years younger than Radhika. Write Leela's age in terms of Radhika's age? Take Radhika's age to be x years.
Q. 4	Four times a certain number decreased by thrice the same number gives 17. Find the number.
Q. 5	If 130 + x = 420, what number replaces x to make the sentence true?
Q. 6	What is the value of $3k^2 + 4k + 7$, if k = 1?
Q. 7	In the equation 5x + 4y = 70, what is the value of x when y = 5 ?
Q. 8	In a family, the consumption of wheat is 4 times that of rice. The total consumption of the two cereals is 80 kg. Find the quantities of rice and wheat consumed in the family.

(Continued……)

Sr. No.	Questions
Q. 9	Advait and Ayush donate some money in PM Care's fund. The amount donated by Ayush is Rs. 125 more than that donated by Advait. If the total money donated by them is Rs. 975, find the amount of money donated by Advait.
Q. 10	Akshat's house had a rectangular garden of perimeter 40 m. The length of the garden is 4 m less than 5 times its breadth. Find the length of the garden.
Q. 11	In an isosceles triangle, the base angles are equal and the vertex angle is 80°. Find the measure of the base angles.
Q. 12	A 300 m long wire is used to fence a rectangular plot whose length is twice its width. Find the length and breadth of the plot.
Q. 13	**PROJECT : THE ALGEBRAIC CALENDER FOR THE MONTH OF APRIL** **Aim** : To write all the dates of the month of April using simple equations. **Note** : Create a simple equation for each date of the month of April. The solution of the equation will be that specific date for example **January 1** can be written as **j + 1 = 2** when solved we get **j = 1** , **January 2** can be written as **5t = 10** when solved we get **t = 2 ......** Use any simple equations of your choice.

(Continued.....)

Sr. No.	Questions
Q. 14	**Equations Crossnumber** Complete the puzzle by solving the equations which make up the clues. **Across** 1. $x/3 = 8$ 3. $5x + 6 = 56$ 5. $3x = 969$ 8. $x/7 = 6$ 10. $3x + 20 = 7x - 20$ 11. $2x - 14 = x + 1$ 12. $10x - 20 = 5x + 90$ 13. $x + 9 = 40$ 15. $6x - 6 = 2x + 178$ 17. $x/3 = 131$ 19. $4x = 200$ 20. $2x - 4 = 84$ **Down** 2. $x + 43 = 2x$ 3. $2x + 5 = 3x - 8$ 4. $x/4 = 16$ 6. $4x + 30 = 9x - 70$ 7. $8x + 10 = 7x + 40$ 9. $2x = 422$ 10. $5x = 3x + 248$ 13. $x/5 = 7$ 14. $3x + 3 = 60$ 16. $10x = 600$ 17. $3x + 3 = 93$ 18. $2x + 2 = 70$

Topic : Naming of the Elements
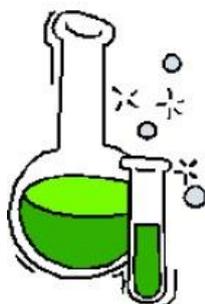
 The Symbols For The Elements

Symbols are signs that stand for something else. Here are some symbols that you may know: $, %, @, &, #. What does each one stand for?

There is a symbol for each of the 118 chemical elements. There are 118 symbols because there are 118 elements. The symbols for the elements are the same all over the world. It makes no difference what country you are in or what language you speak; the chemical symbols are the same.

I. HOW DO THE ELEMENTS GET THEIR SYMBOLS?

1. Often the first letter of the element's name is the symbol for that element.
2. The name of the element may begin with a letter that is already the symbol for another element. In that case, it may be the first and second letters that are used or the first letter and another letter in the name may be used to make the symbol.
3. The first letter of the symbol is always capitalized. The second letter (if used) is always a lowercase letter.
4. A few elements are named after places or famous scientists.

Elements
3 Naming Rules

- Rule 1: <u>PRINT</u> all symbols.
- Rule 2: If there is only one letter, that letter is always a capital.
  Example: H for hydrogen
- Rule 3: If there are two letters, the first letter is a capital and the second is lower case.
  Example: He for helium

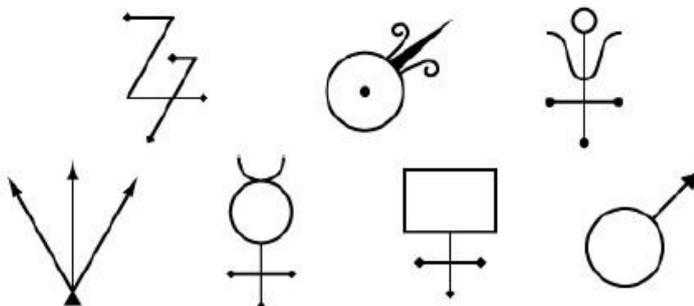## II. ANCIENT (LATIN) NAMES FOR THE ELEMENTS

Plumbum

Natrium

Aurum

Stibium

Argentum

Hydrargyrum (Greek)

Kalium

Ferrum

This exercise will help you to remember the symbols of some of the elements which are not similar to their modern names. The elements listed above were named in ancient times by the early Romans and Greeks. Although we do not use these names, we have kept the symbols. How many of these ancient names can you match to their modern names and symbols given below?

Sr. No.	Modern	Name Symbol	Ancient Name
1	Antimony	Sb	
2	Gold	Au	
3	Iron	Fe	
4	Silver	Ag	
5	Sodium	Na	
6	Potassium	K	
7	Lead	Pb	
8	Mercury	Hg	

III. COMPLETE THE SENTENCES WITH THE WORDS BELOW:

capital   two   elements   symbol   small

1. The short way of writing an element name is called its_____.

2. The first letter of a chemical symbol is always a_____letter.

3. If a chemical symbol has two letters, the second letter is always a _____letter.

4. A chemical symbol never has more than_____letters.

5. Chemists use symbols for the names of_____.

(Continued....)

IV. AN ELEMENTAL TALE: THE GOLD DUST KID

The Kid mounted his trusty steed, old [B]_____. His shooting [Fe] _____ strapped to his side, he headed out for the bright [Ne]_____lights of Toronto, aiming to rob the mid-day stage. There was sure to be a load of precious [U] _____aboard, and probably [K]_____, too. Inhaling a deep breath of [O]_____he coughed on the [S]_____from the nearby mills. Since the [Hg]_____was climbing, he quenched his thirst with some H_2O, tasting the [Cl] _____all big cities like Brockville had. As he headed north his bones ached from [Ca]_____deposits built up over the years of riding the [Zn]_____trail. Overhead a [He]_____-filled balloon floated in the breeze; the sun beat down like burning [P]_____. Soon he spotted the stage, guarded only by a sheriff with a [Sn]_____badge. "Halt," he yelled. "or I'll fill you full of [Pb]_____." The sheriff drew his gun, but alas, was too slow. The Kid's gun, blazing like flaming [Mg] _____ did the [Cu]_____in. Anyone who drew on the Kid should know his life wasn't worth a plugged [Ni]_____. A [Pt]_____blonde riding beside the [Al]_____-framed coach rode for her life when the Kid pulled out some [N]_____compounds, preparing to blow the safe to atoms. Suddenly, a shout rang out, "Hi Ho [Ag]_____and a masked man on a white horse raced across the [Si]_____sands like [Na]_____skittering on H_2O. A[H] _____bomb would not have stopped the lawman; the Kid had met his doom. The rest of his life was to be spent behind [Co]_____steel bars, a warning to all who flirt with danger. Your first detention may be the initial step in a [C]_____copy life of the saga of the [Au]_____dust Kid.

V Names of the Elements:

As you look at your periodic table, you will recognize some of the more common elements, but you will probably also notice that some elements have strange names. Where did all of these names come from? You will find out as you work through the exercises below.

A. Some elements are named after places. Write the name of the element that is named after the place given in each question.

1. The country of France : _____
2. The country of Germany : _____
3. America : _____
4. The country of Poland : _____
5. Scandinavia : _____
6. One of our states : _____
7. The city of Berkeley : _____
8. The continent of Europe : _____

(Continued.....)

B. Four of the elements are named after planets. Complete the chart below for the elements named after planets.

Name of the Element	Name of the Planet
_____	_____
_____	_____
_____	_____
_____	_____

C. Many elements are named after famous scientists. The scientist's last name is used along with the ending "ium". Write the element after each scientist given below:

1. Albert Einstein: _____

2. Pierre and Marie Curie: _____

3. Enrico Fermi: _____

4. Alfred Nobel: _____

5. Dmitri Mendeleev: _____

6. Ernest Lawrence: _____

Element Symbols:

An element symbol is an abbreviation for the name of an element. A symbol can have one or two letters. The first letter of a symbol is always capitalized. The second letter (if there is one) is never capitalized. Symbols for the naming of elements are part of an international language. Chemists all over the world use the same symbols.

(Continued……)

D Complete the following table by filling in the missing word or symbol:

Element	Symbol	Element	Symbol
Carbon	C	Chlorine	Cl
Hydrogen			Cu
Oxygen			Au
Nitrogen			Ag
Sulfur			He
Iodine			Al
Iron			Ca
Lead			Ne
Mercury			K
Phosphorus			Na

E It is easy to see where some of the symbols came from by looking at the names of the elements. The symbol seems to be a combination of one or two of the beginning letters in the element's name.

The elements in the following table are ones that have symbols that come from their Latin names. See how many Latin names you can get right in this table. Study the element symbol and pick the Latin names from the list in the last column of the table.

English Name	Symbol	Latin Name	Latin Name(Choices)
Antimony	Sb		Argentum
Copper	Cu		Aurum
Gold	Au		Cuprum
Iron	Fe		Ferrum
Lead	Pb		Hydrargyrum
Mercury	Hg		Kalium
Potassium	K		Natrium
Silver	Ag		Plumbum
Sodium	Na		Stannum
Tin	Sn		Stibium
Tungsten	W		Wolfram

Home Assignment - 1

Session 2020 -21

Class VII   **Subject :** Social Science

Topic : Equality

Sr. No.	Questions
Q. 1	Read the passage given below carefully and answer the following questions.
	Set Sail *It is Election Day. All the people are going to their polling booths where they are registered to cast their vote. Nini is also in the car with her parents and brother. Her parents will be casting their votes but she and her brother will have to wait for some more years before they become eligible to cast their vote. As they wait for their parents to come out of the polling booth, Nini and her brother notice that there are a lot of people from diverse backgrounds queuing up to cast their vote. They see their school gardener standing behind the state commissioner. When their parents came out, they wanted to know whether the vote of the school gardener and the commissioner had the same say. Her parents explained to her that the Constitution of India states that every Indian is equal in the eyes of law. And the vote of each individual has the same weightage, be it that of a peon or the Prime Minister of India.*
	i. State the importance of elections in a democratic country. ii. How does the constitution of India promote equality? iii. 'Indian democracy is a boon to the Indian society'. Discuss in not more than 80 words. iv. In daily life, we still find many examples of inequalities. With the help of one real life example, share how you have witnessed or experienced inequality or discrimination around you.
Q. 2	Express your ideas on Equality through a poem, a poster or a sketch. Be as creative as possible.