

# Welland Gouldsmith School

## CLASS-VII

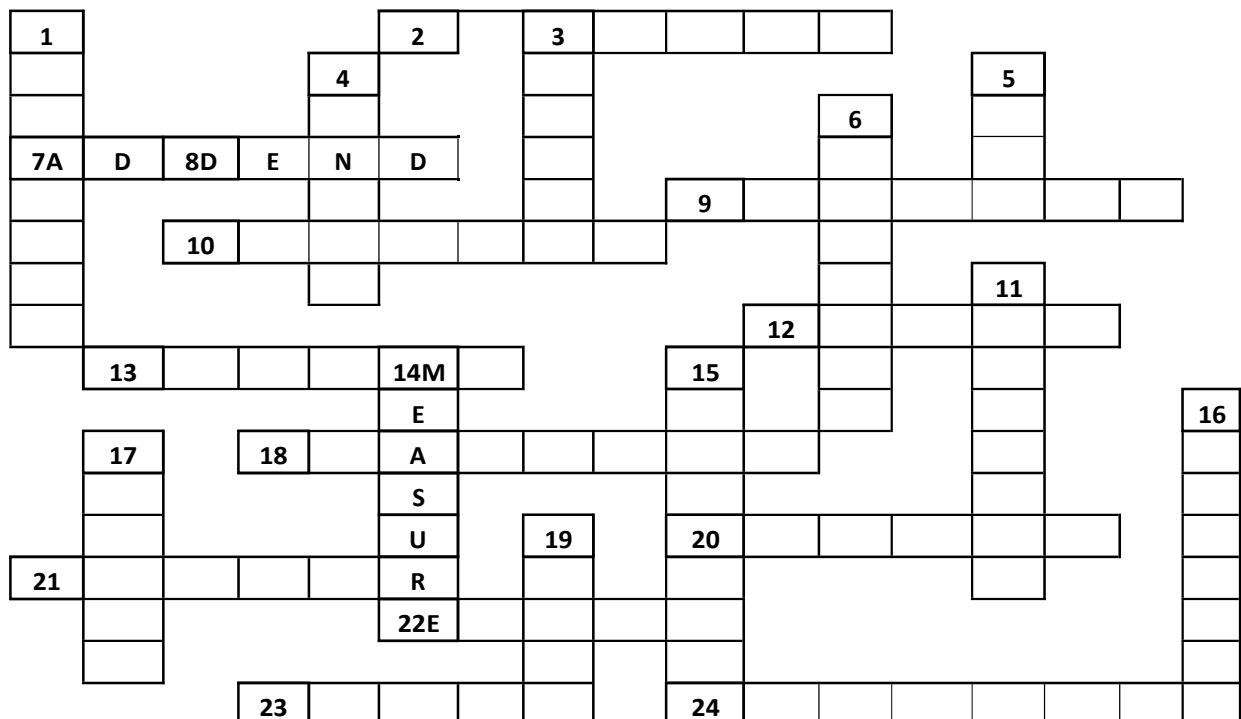
### Mathematics

#### Assignment-1

Numbers are full of patterns. They relate, connect and form families. This topic is about some of the patterns that lead to number families.

Before we start, let us warm up through basic math concepts.

#### Mathematics Vocabulary Puzzle



#### Across

2. The answer after multiplying numbers
7. ADDEND
9. The number that divides [e.g. '3' in  $\frac{4}{3}$ ]
10. A positive or negative number
12. The sign used of subtraction
13. Space taken up by a 3D object
18. Numbers of the type  $\frac{2}{3}$  or  $\frac{1}{4}$
20. The shape having centre and radius
21. A number that divides another fully
22. Is same as another
23. 2 rays starting from same point form it
24. My friend 'took away' Rs230 from me

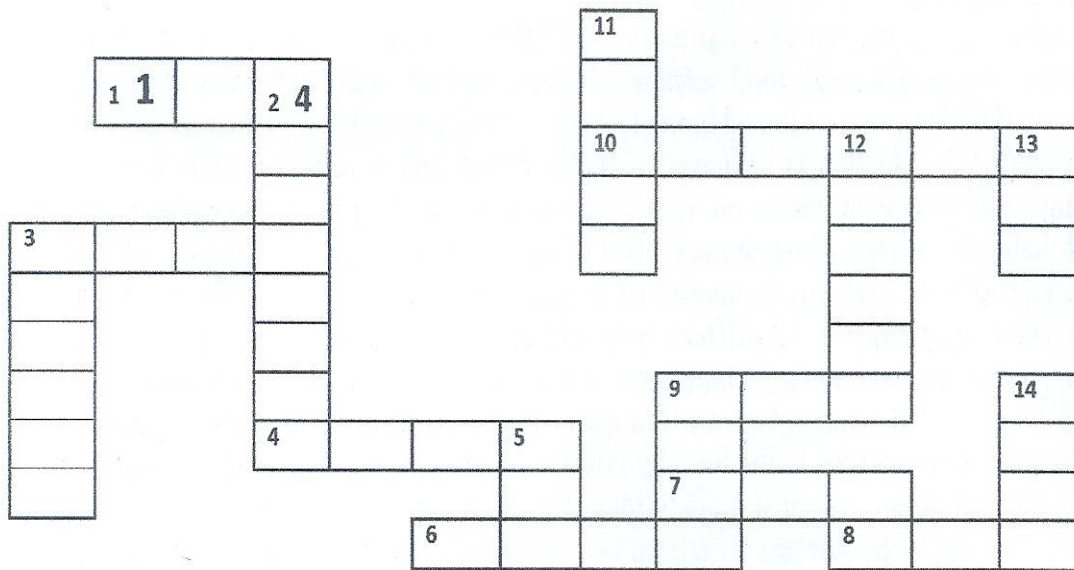
#### Down

1. I am Scalene, equilateral or isosceles
3. I am an angle between 90 and 180
4. I am the longer side of a rectangle
5. You use me when you add
6. Sharing a chocolate between friends
8. No clue. Ignore
11. You use me to find  $6 \times 8$
14. MEASURE
15. A 3-side polygon with two equal sides
16. The answer we get in a division problem
17. A quadrilateral with all 4 angles and sides equal
19. I am an angle less than 90 degrees

1. Ram had  $\frac{4}{7}$  of a basket of apples. What fraction of apples was left in the basket?
2. Write the decimal 35.009 in expanded form.
3. Evaluate the expression  $4x + 6y - 10$  when  $x=4$ ,  $y=6$ ,  $z=5$
4. find the mean and the extreme terms if the ratios form a proportion:
  - a) 14kg : 16kg and 35 kg :40kg
  - b) 40l :245l and 56 cans :343 cans
5. Anshu has 48 flowers. Find in how many different ways can she arrange the flowers.
6. There are 46 rows in an auditorium. Find the minimum number of chairs in each row if the seating capacity of the auditorium is 600 people at a time
7. Sheeba wants to divide Rs.56 between her sons Arvind and Arshu in the ratio of their ages. If Arvind is 16 years old and Arshu is 12 years old, find how much will each get?
8. Convert each of the following fractions into a decimal: a)  $\frac{639}{100}$  b)  $\frac{9009}{1000}$  c)  $\frac{745}{25}$  d)  $\frac{425}{50}$
9. Add or subtract:
  - a)  $629 + 8.49$  b)  $39.009 + 125.01 + 5.900$  c)  $85.6 - 22.60 + 55.91 - 40.80$
10. Write the algebraic expression for the following sentences:
  - a) 9 added to the product of p and 4.
  - b) r multiplied by 4 and added to  $\frac{4}{5}$ .

# Assignment-2

## Puzzle with Decimals



### ACROSS

1.  $16.7 - 15.3 = 1.4$
3.  $26.39 - 21.30 =$
4.  $9.12 - 2.73 =$
6.  $61.9 - 15.7 =$
7.  $9.7 - 2.6 =$
8.  $17.6 - 12.8 =$
9.  $29.6 - 27.1 =$
10.  $67.518 - 2.173 =$

### DOWN

2.  $5211.889 - 452.323 =$
5.  $31.9 - 22.3 =$
9.  $6.67 - 3.95 =$
11.  $161.5 - 45.2 =$
12.  $42.521 - 7.406 =$
13.  $82.7 - 77.3 =$
14.  $421.62 - 415.04 =$

1. Find the solution of the following equations:
  - a.  $5x = 125$
  - b.  $56 - 8a = 8$
  - c.  $\frac{1}{3}y + 6 = 9$
  - d.  $4[y + 4] - 3[y - 2] = 8$
  
2. Evaluate the following:
  - a.  $a - b + c$ , if  $a = 7$ ,  $b = 3$ ,  $c = -6$
  - b.  $4x + 5y - c$ ,  $x = 2$ ,  $y = 3$ ,  $c = -4$
  
3. Compare the following ratios:
  - a.  $4 : 10$  and  $2 : 25$
  - b.  $3 : 4$  and  $51 : 64$
  - c.  $6 : 11$  and  $9 : 66$
  
4. Write the following ratios in their simplest form:
  - a. Rs.25 to Rs.50
  - b. 26 kg to 52 kg
  - c. 4 min to 52 sec.
  
5. The angles of a triangle are in the ratio  $3 : 4 : 5$ . Find the measure of each angle of the triangle.
  
6. Find the value of  $x$  in the following proportions:
  - a.  $4 : 16 :: x : 8$
  - b.  $x : 6 :: 12 : 16$
  - c.  $45 : x :: 32 : 24$
  
7. A carpenter makes 51 chairs in 17 days. In how many days can he make 24 such chairs at the same rate?
  
8. A train covers 260 kms in 4 hours. Find the distance covered by the train in 7 hours?
  
9. Of all the months in a year find the ratio of the months with 30 days to the months with 31 days.
  
10. The ratio of the number of students studying Sanskrit to the number of students studying French is  $5 : 7$ . If there are 48 students in all, find the number of students studying Sanskrit?

# CLASS-VII

## PHYSICS

### WORKSHEET 1

**TIME: 35 MINUTES**

**Answer the following questions (if required then do further self-study): -**

1. A class II lever has \_\_\_\_\_ in the middle. (fulcrum, load, effort)
2. A path of electricity is called \_\_\_\_\_. (current, voltage, circuit)
3. Like poles of a magnet \_\_\_\_\_ each other. (repel, attract)
4. Rubbing two palms together generates heat due to \_\_\_\_\_. (pressure, friction, energy)
5. CGS unit of force- \_\_\_\_\_. (Pascal, Newton, Joule)
- 6.

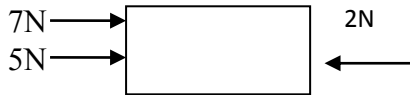


Fig-A

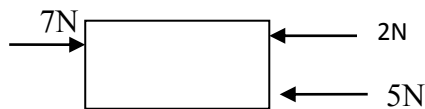


Fig- B

In which of these conditions will the block move? Why?

7. Match the columns: -

Column A

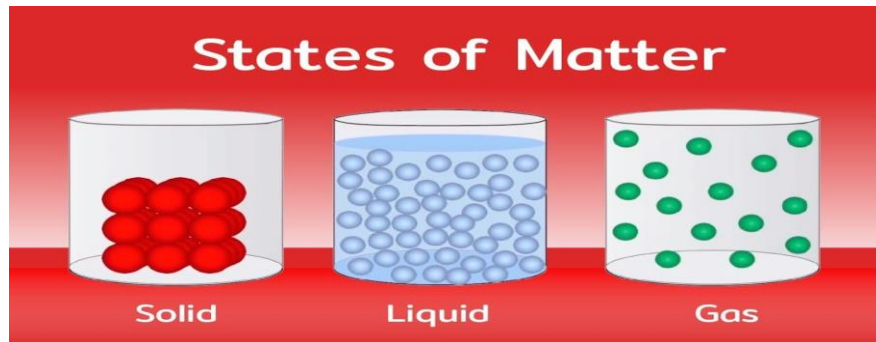
- a) Non-contact Force
- b) Like poles
- c) Contact Force
- d) Mass
- e) Weight
- f) Friction

Column B

- 1) Repel
- 2) kg
- 3) Gravitational Force
- 4) wear and tear
- 5) Force of Friction
- 6) kgf

8) The molecules of a substance are always in motion. What path do they follow?

9) Fill up the given table:



	<b>Solids</b>	<b>Liquids</b>	<b>Gases</b>
1)Compressibility		Negligibly compressible	
2)Rigidity	maximum		
3)Fluidity			Can Flow
4)Expansion on heating		More than solid	

10) When a teaspoon of sugar is added to half a glass of water, the water level remains same. Why? (hint: observe the picture given)



## WORKSHEET 2

Answer the following questions (if required then do further self-study): -



1. Why does a freely suspended magnet always rest in a North- South direction?
2. How can you demagnetize a magnet?
3. \_\_\_\_\_ is a device used by pilots and navigators used to find the direction. (COMPASS/BAR MAGNET).
4. You are provided three scales A, B and C as shown in below figure to measure a length of 10 cm



B



C



A

For the correct measurement of the length you will use which scale and why?

5. Match the following: -

- | A         | B               |
|-----------|-----------------|
| 1. Length | a) Kilogram     |
| 2. Mass   | b) cubic meter  |
| 3. Area   | c) Meter        |
| 4. Volume | d) square meter |

6. Why efficiency of a machine is always less than 100%?

7. Four children A, B, C and D measure the length of a table which was about 1 m. Each of them used different ways to measure it.

- (i) A measured it using a 2 m long measuring tape.
- (ii) B measured it with a 10 cm scale from her geometry box.
- (iii) C measured it using her hand span.

(iv) D measured it with a .5 meter long thread.  
Which one of them would get the most accurate length? Why?

8. Which device is used to give trainee pilots an experience of flying in an artificial environment before they actually start flying an aircraft?

9. What is the wire inside an electric bulb known as?

10. Metals expand when heated and what happens when they are cooled?

**Read and answer: -**

If an object keeps on changing its position with time, it is said to be moving or in **motion**.

The different types of motions are shown below: -

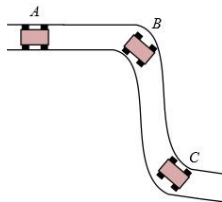
**Linear Motion**- motion in a straight line that is in one direction



●————— **Example**- bus moving on a straight road.

**Curvilinear Motion**- means motion in a curved path.

**Example**- car moving in a curved path



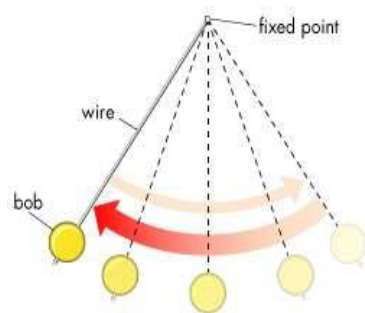
**Circular motion**- in which the object travels along a circular path. Example—car on a circular track.

**Rotatory Motion**- means movement in a circle about a fixed axis. **Example**- A potter's wheel



**Oscillatory motion**- object moves to and fro about a mean position.

Example- Pendulum.



Answer the questions: -

1) Why is the motion of the Earth around the Sun circular whereas motion of the Earth on its own axis is rotatory?



2) Name the type of motion performed by a spinning top.

3) Select the odd one out:

- a. Motion of moon around the earth
- b. Motion of stone tied to a thread and whirling around
- c. Motion of the person sitting on merry go round
- d. Motion of a man walking on the straight road

4) Which of the below are in motion:

- a. A table
- b. A house
- c. A fish moving in water
- d. A moving train

5. Match the following: -

Column A

- a) Falling stone
- b) Movement of the minute hand of a clock in one hour
- c) Wheel of a sewing machine
- d) Motion of a swing
- e) Javelin thrown by an athlete

Column B

- 1) Oscillatory Motion
- 2) Curvilinear motion
- 3) Rotatory motion
- 4) Linear motion
- 5) Circular motion

### **LIFE SKILL**

1) Observe the different kinds of objects inside your house and identify the types of motion they possess. Also make a list of them.

2) Try and make a pendulum by tying a stone to a string. Hold it in your hand and let the stone hang. Pull the stone on one side with the other hand and release, you can observe the to and fro motion of the stone about its mean position.

# CLASS-VII CHEMISTRY WORKSHEET AND ASSIGNMENT

Time: 30 Minutes

## ASSIGNMENT 1

### Question 1.

Choose the correct answer from the choices given below:

- i. What is the centre of an atom called -  
a. Electron      b. Proton      c. Neutron      d. Nucleus.
- ii. The word acid comes from the Latin word 'acere' which means -  
a. sweet      b. salty      c. sour      d. neutral

### Question 2.

State true or false -

- i. An electron carries a positive charge.
- ii. The main gas found in the air which is present in maximum amount is oxygen.

### Question 3.

Quiz question-

- i. In which field was the famous New Zealand scientist 'Ernest Rutherford' awarded a Nobel prize.
- ii. Name the first element in the Periodic Table.

### Question 4.

General knowledge based question -

- i. What is the chemical symbol for gold?
- ii. At room temperature, what is the only metal that is in liquid form?

## WORKSHEET 1

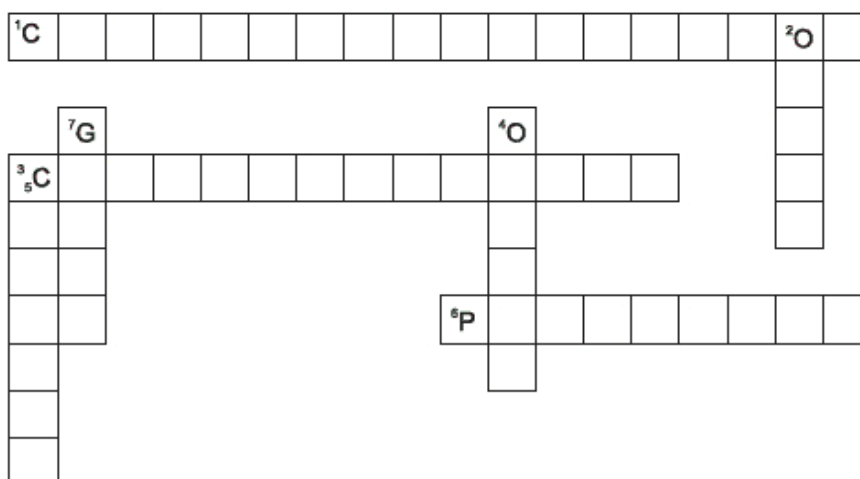
### Question 5.

Square the items with Red pen, if physical changes and with Blue pen, if chemical changes -

- i.  Burning Match    ii.  Cutting of apple    iii.  Digesting food
- iv.  Melting    v.  Frying eggs

### Question 6.

Complete the cross word puzzle with the help of clues given below:



#### Across

1. Pollutant which was used in refrigerators and air conditioners.
3. Produced on incomplete combustion of fuels.
6. This chemical protects our crops and is washed into water bodies from the field.

#### Down

2. This layer protects us from harmful ultraviolet rays.
4. It is essential for combustions.
5. Disease which is caused by drinking contaminated water.
7. River which is famous in India and sustains most of the Northern, central and eastern Indian population

### Question 7.

**Circling the state of matters –**

Are the items pictured below a liquid, solid or gas? If it is **liquid**, circle the item in **BLUE**, if it is **solid** circle the item in **RED**, if it is a **gas**, circle the item in **GREEN**



### Question 8.

Students are required to perform the experiment ‘ Mixing oil and water’ according to the instructions given below-

#### Things required -

- #. Small soft drink bottle/ any glass bottle
- #. Water
- #. Food coloring / turmeric powder
- #. 2 table spoons of cooking oil.
- #. Dish washing liquid or detergent.

#### Instructions -

- i. Add a few drops of food coloring / turmeric powder to the water.
- ii. Pour about 2 tablespoons of the colored water along with the 2 table spoons of cooking oil.
- iii. Screw the lid on tight and shake the bottle as hard as you can.
- iv. Put the bottle back down and have a look.

Observation-

Q. What do you observe?

Ans. \_\_\_\_\_.

Q. What is the conclusion drawn from the experiment?

Ans.: Oil and water are \_\_\_\_\_ (miscible/immiscible) liquids.

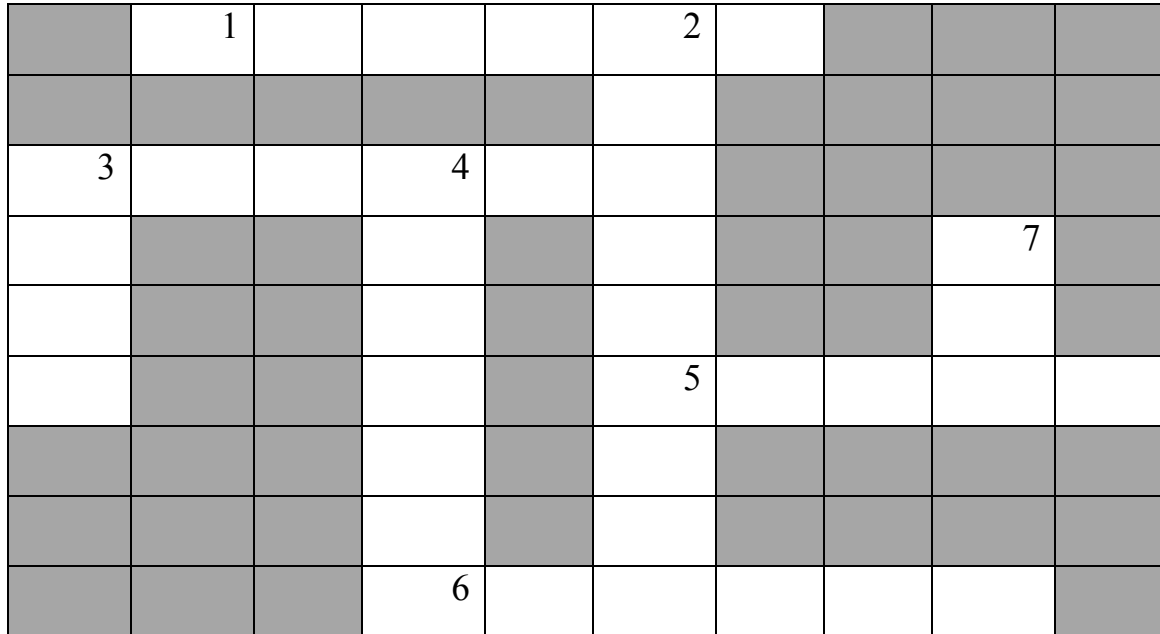
- v. Then add a small amount of dish washing liquid or detergent and shake it well.

Q. What do you observe?

Ans.: The two liquids form a / an \_\_\_\_\_ ( solution / emulsion )

**CLASS-VII**  
**BIOLOGY**  
**WORKSHEET**  
TIME: 30 minutes

Using the clues given below, solve the crossword puzzle.



**ACROSS**

1. Bright attractive part of a plant
3. Sweet liquid produced by flower
5. Cereal used for baking cakes, bread, etc.
6. Vegetables used to make ketchup

**DOWN**

2. An insect that helps to make soil fertile
3. Home of a bird
4. The main root of a plant
7. A hot beverage

## Excretory System

(A) Use the word bank to match the term to the definition and to fill in the blanks below:

Bladder   urethra   kidneys   urea   ureters   liver   urine
--

1. \_\_\_\_\_ : two ducts where urine travels to the bladder.
2. \_\_\_\_\_ : where blood is filtered and waste is converted into urea.
3. \_\_\_\_\_ : a muscular bag that holds urine.
4. \_\_\_\_\_ : a pair of bean shaped organs that filter urea from the blood.
5. \_\_\_\_\_ : the substance that the liver creates from nitrogen waste.
6. \_\_\_\_\_ : how urine leaves the body.
7. \_\_\_\_\_ : a mixture of urea and water.

(B) Fill in the table given below:

Organ	Excretes what?	In what form?
Lungs		
Kidney		
Skin		