

# DELHI PUBLIC SCHOOL BALCO

Dear Parents

As school is closed on account of unfortunate global pandemic, we at DPS BALCO have decided to engage students in meaningful learning activities. We all are working from home and preparing assignments and worksheets besides study material.

We expect you to supervise your ward in completing these tasks. You may ask them to use any unused notebook for this purpose.

In days to come we will upgrade this process. You will be informed through SMS about these.

**YOU MAY ASK YOUR WARD TO USE ANY AVAILABLE NOTEBOOKS INCLUDING OLD OR UNUSED OR HALF USED NOTEBOOKS.**

Sd/-  
**Kailash Pawar**  
**Principal**

## CLASS – VIII SUBJECT - MATHEMATICS MODULE- I (LOOKING BACK)

1. Write the additive inverse of (i)  $\frac{2}{-5}$  (ii)  $\frac{-7}{-11}$
2. Find five rational numbers between  $\frac{-1}{2}$  and 2.
3. Q9. Find  $(\frac{3}{7}) + (\frac{-6}{11}) + (\frac{-8}{21}) + (\frac{5}{22})$
4. Q10. Using appropriate properties, find
  - i)  $\frac{2}{5} \times \frac{-3}{7} - \frac{1}{14} - \frac{3}{7} \times \frac{3}{5}$
  - ii)  $\frac{1}{2} - \frac{1}{6} \times \frac{-2}{3} + \frac{7}{5} \times \frac{-1}{6}$
5. Simplify  $\frac{25 \times a^{-4}}{5^{-3} \times 10 \times a^{-8}}$ , Where a
6. Find 'a' such that  $(-5)^{a+2} \times (-5)^4 = (-5)^9$ .
7. Find the value of  $(4^0 + 3^{-1}) \times 3^2$ .
8. Simplify  $(-2)^{-3} \times (-3)^{-3} \times (4)^{-3}$  and write the answer in exponential form.

9. How many numbers lie between squares of 99 and 100?
10. Find the value of x that makes the following statement correct.  
 $\sqrt{8x} \times \sqrt{2x} = 144$
11. Find  $37^2$  using the identity  $(a + b)^2 = a^2 + 2ab + b^2$ .
12. Find the square root of 31.36.
13. Find the smallest square number which is divisible by each of the numbers 4, 9 and 10.
14. A society collected Rs 2401. Each member collected as many rupees as there were members. How many members were there and how much did each contribute?

# DELHI PUBLIC SCHOOL BALCO

Dear Parents

As school is closed on account of unfortunate global pandemic, we at DPS BALCO have decided to engage students in meaningful learning activities. We all are working from home and preparing assignments and worksheets besides study material.

We expect you to supervise your ward in completing these tasks. You may ask them to use any unused notebook for this purpose.

In days to come we will upgrade this process. You will be informed through SMS about these.

**YOU MAY ASK YOUR WARD TO USE ANY AVAILABLE NOTEBOOKS INCLUDING OLD OR UNUSED OR HALF USED NOTEBOOKS.**

Sd/-

**Kailash Pawar  
Principal**

## **Class-VIII (Chemistry)**

### **Facts that Matter**

- Materials around us can be broadly grouped into metals and non-metals.

#### **(a) Physical Properties of Metals**

- **Lustre:** Metals in the pure state generally shine. The shine on the metallic surface is called the metallic lustre.

- **Malleability:** The property of metals by which they can be beaten into thin sheets is known as malleability.

For example, silver metal is beaten to make silver foil used for decorating sweets.

- **Ductility:** It is one of the properties of metals by virtue of which they can be drawn into wires. For example, copper and iron can be drawn into wires.

- **Conductivity:** Metals are good conductor of heat and electricity. Heat and electricity can pass through them.

- **Sonorous:** Metals produce a ringing sound when struck hard. So, they are called sonorous.

- **Solid:** All metals are solid except Mercury, the only metal which is liquid at room temperature. We can cut sodium (Na) and potassium (K) metals with the help of a knife. Mercury, sodium and potassium are exceptional metals. Examples of metals: iron, copper, gold, aluminium, silver, calcium etc.

#### **(b) Physical Properties of Non-Metals**

- Solid non-metals are soft and dull. They break down into a powdery mass on tapping with a hammer. For example, coal and sulphur.

- Non-metals are not sonorous.

- They are poor conductors of heat and electricity.

- They do not possess metallic lustre.

- They possess no malleability and ductility.

Examples of non-metals: phosphorus, sulphur, carbon, oxygen etc.

### (c) Chemical Properties of Metals

- Oxidation: Metals except gold and silver (noble metals) react with oxygen to form basic oxides. Sodium also reacts vigorously with O<sub>2</sub>. A lot of heat generated in this reaction.

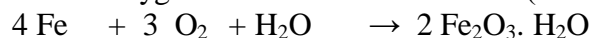
For Example,

Magnesium + Oxygen → Magnesium oxide



**i Rusting of Iron:** In presence of moisture and air (L O<sub>2</sub>), rust gets deposited over iron.

Iron + oxygen + Water → Iron oxide (Rust)



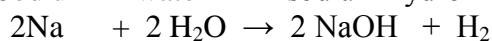
**ii Greenish deposit on the surface of copper vessels:** The dull greenish material deposited on the surface of copper is a mixture of copper hydroxide [Cu(OH)<sub>2</sub>] and copper carbonate (CuCO<sub>3</sub>) that takes place:

**iii Metallic oxides** are basic in nature.

- Reaction of Metals with Water

Some metals like sodium (Na) react vigorously with water at room temperature.

Sodium + water → sodium hydroxide + hydrogen

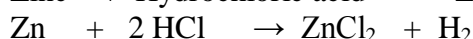


Potassium (K) and Calcium (Ca) are also active metals and react with water at room temperature. Such metals are stored in kerosene.

Some other metals do not do so. For example, iron reacts with water slowly.

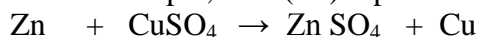
- Reaction with Acids: Acids react with metals to liberate hydrogen and corresponding salt of the metal.

Zinc + Hydrochloric acid → Zinc chloride + hydrogen gas



Hydrogen burns with a 'pop' sound, when a burning match-stick is brought near it.

- Reaction with Bases: Metals react with sodium hydroxide to produce hydrogen.
- Displacement Reactions: Certain metals are capable of displacing other metals from their solutions. For example, zinc (Zn) replaces copper from copper sulphate solution.



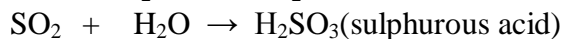
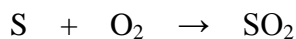
In general, more active metals displace less active metals from their solutions. In this case, Zinc is more reactive than Cu, so it replaces copper (Cu) from copper sulphate solution.

The rule is that 'a more reactive metal can replace a less reactive metal, but a less reactive one cannot replace a reactive metal'.

Thus, metals are arranged in the order of their decreasing activity. This arrangement is called the activity series.

### (d) Chemical Properties of Non-Metals

- Oxidation. Non-metals react with oxygen to form oxides which are acidic in nature. For example, sulphur when reacts with oxygen forms sulphur dioxide and sulphur dioxide is dissolved in water to form sulphurous acid.



The sulphurous acid turns blue litmus paper red i.e. it is acidic in nature.

- Reaction of Non-Metals with Water: Generally, non-metals do not react with water though they may be very reactive in air.

Some non-metals such as phosphorus, react with the air. It catches fire if exposed to air. So, phosphorus is stored in water.

### (e) Uses of Metals

- Metals are used in making wires and sheets, which are used for various purposes. For example, copper and aluminium wires are used for conduction of electricity, in electrical equipments etc. Iron wires are used for fencing and various other purposes. Iron sheets are often used for making roof sheds.

- Metals are used in making machinery, auto mobiles, utensils, industrial gadgets, water boilers etc.

#### (f) Alloys

- An alloy is a solid mixture of two or more metals or a metal and a non-metal. Alloys of metals are used in making coins, satellite, stainless steel, wooden ships sheathing and casting. (

Alloy like duralium has great strength. It is used in aircrafts, pressure cooker, automobiles etc. Naval brass is used for marine and engineering castings.

- Some metals like iron, sodium and calcium are essential parts of our body.

#### (g) Uses of Non-Metals

Non-metals are widely used in our daily life. Many non-metals like iodine, chlorine, sulphur are used in medicine. Phosphorus is essential for our bones and teeth.

Some of the interesting uses of non-metals are:

- Non-metal (oxygen) is essential for our life, as oxygen is required for respiration.
- Carbon dioxide (CO<sub>2</sub>) is essential for green plants to carry out photosynthesis.
- Non-metals like nitrogen and phosphorus are used in fertilisers for better plant growth.
- Non-metal like chlorine (Cl<sub>2</sub>) is used in water purification process.
- Non-metal (I<sub>2</sub>) is used in the purple coloured solution (Iodine solution) on wounds as antiseptic.
- Non-metal such as sulphur is used in crackers.

### Now Test Your Knowledge:

1. Which of the following can be beaten into thin sheets?

- (a) Zinc                      (b) Phosphorus  
(c) Sulphur                 (d) Oxygen

2. Which of the following statements is correct?

- (a) All metals are ductile.                      (b) All non-metals are ductile.  
(c) Generally, metals are ductile.            (d) Some non-metals are ductile.

3. Fill in the blanks.

- (a) Phosphorus is a very \_\_\_\_\_ non-metal.  
(b) Metals are conductors of heat and \_\_\_\_\_ .  
(c) Iron is \_\_\_\_\_ reactive than copper.  
(d) Metals react with acids to produce \_\_\_\_\_ gas.

4. Mark 'T' if the statement is true and 'F' if it is false.

- (a) Generally, non-metals react with acids. ( )  
(b) Sodium is a very reactive metal. ( )  
(c) Copper displaces zinc from zinc sulphate solution. ( )  
(d) Coal can be drawn into wires. ( )

5. Some properties are listed in the following table. Distinguish between metals and non-metals on the basis of these properties.

Properties	Metals	Non-metals
------------	--------	------------

1. Appearance

2. Hardness

3. Malleability

4. Ductility

5. Heat Conduction

## 6. Conduction of Electricity

6. Give reasons for the following.

- (a) Aluminium foils are used to wrap food items.
- (b) Immersion rods for heating liquids are made up of metallic substances.
- (c) Copper cannot displace zinc from its salt solution.
- (d) Sodium and potassium are stored in kerosene

7. Can you store the lemon pickle in an aluminium utensil? Explain.

8. Match the substances given in Column A with their uses given in Column B.

A

B

- |                 |                   |
|-----------------|-------------------|
| (i) Gold        | (a) Thermometers  |
| (ii) Iron       | (b) Electric wire |
| (iii) Aluminium | (c) Wrapping food |
| (iv) Carbon     | (d) Jewellery     |
| (v) Copper      | (e) Machinery     |
| (vi) Mercury    | (f) Fuel          |

9. What happens when

- (a) Dilute sulphuric acid is poured on a copper plate?
- (b) Iron nails are placed in a copper sulphate solution?

Write word equations of the reactions involved.

10. Shweta took a piece of burning charcoal and collected the gas evolved in a test tube.

- (a) How will she find the nature of the gas?
- (b) Write down word equation of the reaction taking place in this process.

हिंदी

अभ्यास - पत्र - 01

\* निम्नलिखित शब्दों का वर्ण विच्छेद कीजिए।

मानवश्यक -

अत्यंत -

शघर्ष -

आशीर्वाद -

अद्भुत -

अनुकरणीय -

आनंदित -

विस्मित -

स्तब्ध -

अचंभित -

\* निम्नलिखित शब्दों में से तत्सम, तद्भव, देशज, एवं विदेशी शब्द छांटकर लिखिए।

गांव, डिबिया, चंद्र, स्कूल, घर, घृत,

अग्नि, लुटिया, कॉलेज, वानर, आगमन,

सूर्य, बंदर, घी, पगड़ी, आलमारी, मैज

\* निम्नलिखित शब्दों में से रुढ़, यौगिक तथा योगरूढ़ शब्दों को छांटकर लिखिए।

पंकज, पाठशाला, नेत्र, यज्ञशाला,

पुस्तकालय, जलद, हिमालय, सदन, हार

रुढ़

यौगिक

योगरूढ़

Date : 28.03.2020

Page : 2/3

Topic : Worksheet for 6, 7 &amp; 8

रजनिश -

सहस्र -

श्रृंखला -

कम्प्यूटर -

नमश्कार -

अनुकूल -

\* विदेशी शब्दों को उनके हिंदी पर्याय से मिलाइए।

कदम

प्रार्थना - पत्र

फ्रीस

पग

डायरी

द्वैतदिनी

कंप्यूटर

शुल्क

आसमान

आकाश

प्रिंसिपल -

संगणक

अरजी

प्राचार्य

\* निम्नलिखित शब्दों के हिंदी पर्याय लिखिए।

किस्मत -

बीमार -

इज्जत -

टेलीफोन -

कॉपी -

माफ़ी -

जश्मी -

हार -

\* निम्नलिखित तद्भव शब्दों के तत्सम रूप लिखिए।

सों -

तिनका -

सावन -

पत्थर -

दिन -

अचरज -

≡

AR, JK, PD



\* निम्नलिखित संज्ञा शब्दों को उनके भेदों के अनुसार लिखिए।

गुंबई,	प्रसन्नता,	चौड़ा,	अंजलि,	माता,
रुद्रप्रताप,	खुशी,	कीलकाता,	भारत	
बचपन,	लड़का,	बुढ़ापा,	आई	

व्यक्तिवाचक

जातिवाचक

भाववाचक

\* निम्नलिखित भाषाओं की लिपियों के नाम लिखिए।

नेपाली -

संस्कृत -

जर्मन -

फ्रेंच -

मलयालम -

कन्नड़ -

स्पेनिश -

पंजाबी -

बंगला -

तामिल -

तेलुगु -

गुजराती -

\* निम्नलिखित शब्दों के शुद्ध रूप लिखिए।

अध्ययन -

आनंदीत -

करुणा -

दयालूता -

सप्ताहिक -

भौगोलिक -

## **SOCIAL SCIENCE**

### **INDIAN CONSTITUTION**

---

A **Constitution** is a body of rules, laws and principles on the basis of which a state or a country is governed. It embodies the principles according to which laws are formulated. Therefore, a constitution is regarded as the supreme law of a land.

#### **THE CONSTITUTION OF INDIA**

The constitution of India is the longest written constitution in the world. It was ratified by the Constituent Assembly on 26 November 1949, and came into force on 26 January 1950.

#### **Need of a constitution**

- A constitution defines the fundamental nature of the political system of a country. For example, the Constitution of India declares the Indian Union to be a socialist, secular, democratic republic.
- Our Constitution clearly defines the power and functions of the three organs of the government – legislature, executive and judiciary. It regulates the relationship between them.
- It regulates the relationship between the government and the people.
- It lays down the rights and duties of the citizens of India.

#### **THE NEED FOR LAWS IN LIFE**

Laws are integral to the functioning of a society. A lawless state would be a breeding ground for criminal activities and social evils. It would allow the powerful to oppress the weak without being punished for the same. Therefore, we need laws to protect us and ensure the overall safety and welfare of the people and the state.

#### **The Preamble**

India's constitution begins with an introduction called the Preamble. The Preamble states the ideals that the nation should follow.

#### **Importance of the Preamble**

The Preamble reflects the vision and the aims of the founding fathers of India's constitution. Even though it cannot be enforced by law, it is an important document because it states the goals before the nation and thus guides the policy makers.

#### **Q1. FILL IN THE BLANKS.**

- a. The constitution is regarded as the \_\_\_\_\_ law of the land.
- b. The Constitution of India came into force on \_\_\_\_\_.
- c. The Constitution of India was ratified by \_\_\_\_\_.
- d. Our constitution clearly defines the power and functions of the \_\_\_\_\_ organs of the government.

**Q2. ANSWER IN ONE OR TWO SENTENCES.**

- a. What is a constitution?
- b. What is a Preamble?
- c. Name the three organs of the government.

**Q3. ANSWER IN BRIEF.**

- a. Why should a country have a constitution?
- b. What will happen if there are no laws?
- c. Write the importance of Preamble.

**Q4. THINK AND ANSWER.**

- a. Why do we say India is a secular country?

**BIOLOGY**

1. Define these:-

- a. Horticulture                      b. Compost                      c. Fallow field

2. What is transplantation? How is transplantation a better method of sowing?
3. What is crop rotation? How does crop rotation maintain the fertility of soil?
4. Why is ploughing necessary in agriculture?
5. What is leveling? Write two advantages of leveling.
6. Distinguish between kharif crops and rabi crops.
7. Write three differences between manures and fertilizers.
8. List two traditional methods of irrigation. In what two ways are the modern methods better than traditional methods of irrigation?
9. What are weeds? Why is weeding essential?
10. Write two differences between macronutrients and micronutrients.

**NOTE: All questions given from Chapter 1( Crop Production and Management)**

**DELHI PUBLIC SCHOOL, BALCO**  
**STUDY MATERIAL/ ASSIGNMENT 2020-2021**

**CLASS –VIII**

**SUBJECT-ENGLISH (GRAMMAR) “LOOKING BACK”  
ON “MODALS”**

Modals are those auxiliary (helping) verbs which express the ‘mode’ or ‘manner’ of the action indicated by the main verbs. They express modes such as ability, possibility, probability, permission and obligation.

The following are modal auxiliaries:

‘shall’, ‘should’, ‘will’, ‘would’, ‘can’, ‘could’, ‘might’, ‘ought to’, ‘used to’, ‘need’, ‘dare’ etc.

**MODALS AT GLANCE**

Modal	What it Expresses
Shall	- Simple future (When used with 1 <sup>st</sup> person i.e., I /we) - Threat, promise, determination, command when used with 2 <sup>nd</sup> of 3 <sup>rd</sup> person (you , he, she, it, they)
Will	-Simple future when used with 2 <sup>nd</sup> or 3 <sup>rd</sup> person -Threat, promise determination, command when used with 1 <sup>st</sup> person
Should	-Duty , obligation, advice, suggestion, request, surprise, purpose, etc. -Past form of ‘shall’
Would	-Past form of ‘will’ -Willingness, past habit, determination, suggestion, polite request , wish
Can	-Ability , strong possibility, permission
Need	- Some necessity or obligation [generally in negative(needn’t) and interrogative sentences in the present tense]
Could	-Past form of can, ability of past , polite request , possibility , etc.
May	-Formal permission, doubtful possibility, purpose, wish
Might	-Past form of ‘May’ -Possibility,purpose
Must	-Necessity, compulsion, obligation, determination, certainty, emphatic advice, prohibition etc.
Ought to	-Moral duty , obligation , advice , strong probability
Used to	-Past habit
Has to /Have to / Had to	-Forced action of present, past or future tense

**EXERCISE-**

Fill in the blanks with the appropriate forms the modals. Also write what they are expressing.

Example- You must not tell lies. ( Prohibition )

- (a) We ..... to tell them to stop shouting.
- (b) We ..... (not) hurry for Ujwal rang up to say he’ll be a bit late
- (c) We ..... always be honest.
- (d) You ..... respect people older than you.
- (e) I .....leave soon.
- (f) I..... to tell you something .
- (g) You .....rest here for the afternoon.
- (h) The programme ..... start in a while
- (i) I ..... to talk to you.
- (j) You.....(not) sleep late.
- (k) You .....(not) lose your temper.
- (l) Sarita ..... have called us immediately.
- (m)I .....express my views today.
- (n) I..... go to Bengaluru tomorrow.
- (o) You..... to know the truth.