Alternate Academic Calendar of 2021-22

Class: 10th **Month: August** **Subject: Science.**

Chapters:

1. **Chemical reactions and equations**
2. **Acids, bases and salts**
3. **Electricity**

Sl.No	Month/Week	Main learning abilities	Learning activities	Evaluation
1	August First week (Chapter-1)	• Learn the meaning of chemical reactions and • Explains the changes that occur when a chemical reaction takes place. • Learn the meaning of chemical equation. They will learn how to write the chemical equation and the skill to balancing it. • Learn the types of chemical reaction and classifies them. 1. Chemical combination 2. Chemical decomposition 3. Chemical displacement 4. Chemical double displacement. • Learn about oxidation and reduction reactions.	• Textbook Activities: • Activity 1.2 and Activity 1.3. (Figure 1.2 Textbook) • Write the chemical equations given in the textbook prepare a chart by balancing them. • Give incomplete chemical equation and tell them to balance. Example: $Zn + H_2SO_4 \longrightarrow ? + H_2$ • Carryout the activities given in the textbook 1.4 ,1.5 ,1.6 ,1.7 and 1.10 • 1.4 - Activity using slaked lime and water. • 1.5-Activity using ferrous sulfate, test tube. • 1.6-Activity using lead nitrate powder. • 1.9-Activity using iron nail / copper	• Work book page numbers 1 and 3. • Balance the chemical equations given in the textbook. • .Complete page numbers 4 and 5 of the work book. • Explain the following with an example. 1. Chemical combination 2. Chemical decomposition 3. Chemical displacement 4. Chemical double displacement.

		• Learn about rancidity and corrosion.	sulfate. • Activity No. 1.11 • Watching rusting of iron. • To notice the smell of burning coconut and other oils.	• List the differences between oxidation and reduction reactions. • What is rancidity? • What is corrosion?
2.	August second week (Chapter-2)	• Understands the meaning of acid and bases and their chemical properties. • Learn about strong acid and bases. • Realize the importance of pH in daily life. • Learns about the various compounds obtained from common salt and their uses. For example: Baking soda washing soda.	• Carryout the activities given in the textbook for chemical properties 2.1 ,2.2 ,2.3 ,2.4 ,2.5, 2.6. • Completion of activity Number 2.11.and 2.2 using pH paper. • Textbook Activity 2.12, 2.14 and 2.12 using test tube, water, Soil and pH Paper. • Preparing a list of chemicals obtained from common salt and their uses. • Prepare a table/chart of the chemical compounds and their uses.	• State the uses of acid and bases. • Complete the work book Page No. 7 & 8. • Complete the work book Page No. 10. • Mention importance of pH in daily life. • Complete the work book Page No. 9. • Name the compounds obtained from common salt and mention their uses.
3	August third week (Chapter-3)	• Understands the meaning of electricity. • Explains the basic concepts of electricity, SI unit of electric current, and conductors.	• Defining electricity by performing glowing bulb activity by using a wire, torch, bulb, battery. • Classifying conductors and insulators by creating simple electric circuit by using	• Complete II main no. of page no.37 of Practice Book 1. No. III and IV main no. of page no.38.

		• States Coulomb's Law. • Defines the electric current. • Understands the electric potential. • Practically creates the electric circuit. • Explains potential difference.	rubber, plastic scale, copper wire, wooden piece, torch bulb etc. • An activity by using paper pieces and comb, electrically charge the comb by rubbing over the head and attracting paper pieces. Through this creating the concept of electrons. • Putting sand particles in a transparent spherical box and compare the particles to the electric charge and box to coulomb. • Defining an electric current by putting 4 -6 pellets into a transparent tube and making it to move.	• Assume you have given a dry cell, conductor wire, volta meter, switch and an electric lamp, using these create a simple electric circuit.
4.	August fourth week (Chapter-3)	• Solving problems related to potential difference. • Will define the Ohm's Law. • Map related to Ohm's law. • Narrates resistance, resistors and resistivity. • Differentiate between resistors in series and parallel connection. • Solve the Ohm's law problems.	• A simple electric circuit forming activity by using a dry cell, wire, ammeter voltmeter, press button, etc. Measure the potential difference between two poles by using dry cell and Voltmeter. "PhET simulation" can be used. • Measuring potential difference of dry cells having different electric potential. • Solving problems related to potential difference and electric current.	• What is the purpose of using an ammeter and a voltameter? • Solving problems in exercise. • Define Ohm's Law. • Write the mathematical formula of the Ohm's law.

		• Explains electric power.	• Performing the experiment of Ohm's law. (Textbook Activity 12 .1) • "PhET simulation" can be used to test and record the experiment. • Interpreting Ohm's Law via Graph Method. • Performing Activity 12.2 and 12.3. • Performing Activity 12.5 and 12.6 • Solving textbook exercise problems. • Carrying out activity 12.4 12.6. Listing practical applications of electric current.	• Draw a diagram of series connection of resistors. • Draw an electric circuit diagram showing parallel connection of resistors and identify the parts.