

BCM SCHOOL

A Sr. Sec School Affiliated to CBSE, New Delhi

Annual Academic Calendar

Subject : CHEMISTRY

Session :- 2020-2021

Class :- X

NCERT BOOK : TEXT BOOK OF SCIENCE

| MONTH | TOPIC | LEARNING OUTCOMES | SOURCE/RESOURCES | SUGGESTED ACTIVITIES |
|-------|--|--|---|--|
| APRIL | CHAPTER-1 CHEMICAL REACTIONS AND EQUATIONS | The learners would be able to | | |
| | Occurrence of chemical reaction | Demonstrate and verify chemical changes | https://www.youtube.com/watch?v=ajT9bLMsxWU | Identify any 5 chemical and physical changes in your daily life processes |
| | Chemical equation | *Relate chemical changes to daily life situations | https://www.youtube.com/watch?v=ajT9bLMsxWU | After watching link 2 write any ten word equations and convert them into formulae. |
| | Balancing of chemical equation | Convert chemical change into word equation | https://www.youtube.com/watch?v=ajT9bLMsxWU | Balance the chemical equations given in the assignment. |
| | | Substitute it by symbols and formula | | |
| | | Correlate law of conservation of mass to balancing of chemical equations | | |
| | Types of chemical reactions | | | |
| | -Combination | Compare the different types of reactions | https://www.youtube.com/watch?v=HmNsQKLRgh8 | To find at least 5 examples of each types of chemical reaction. |
| | -Decomposition | Demonstrate types of chemical reactions | | |
| | -Displacement | | | |
| | -Double displacement | | | |
| | -Redox reaction | Compare the reactions as oxidation and reduction | https://www.youtube.com/watch?v=tYKr5ozhvlY | Find out few examples of oxidation and reduction from your daily life |
| | Oxidation in everyday life | Apply oxidation in daily life | https://www.youtube.com/watch?v=gWPjVF3WFzU | Suggest some methods of preventing corrosion of metals. |
| | | -Corrosion | | |
| | -Rancidity | | | |

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| | CHAPTER-2 | | | | |
| | ACIDS, BASES AND SALTS | | | | |
| | Classification of matter – Acids, Bases and Salts | Demonstrate the properties of acids and bases | https://www.youtube.com/watch?v=Jfa2wxpJJBA&list=PLCgDuK3YlhBfIK_ERwalpWH9jutqCMAuh&index=44 | Enlist any 5 acids and bases present in your home. | |
| | Indicators and its types | Identify the substances as acids or bases | | Perform activity given on page no.35 of NCERT | |
| | Chemical properties of acids and bases | List the properties of acids and bases after performing the activities. | https://www.youtube.com/watch?v=0Rf98pXvPrI | Complete the assignment of chemical reactions based on the chemical properties of metals and non-metals | |
| | pH scale- definition and applications | Correlate the pH to acidic, basic and neutral substances. | | | |
| MAY | | Test the pH of solutions and classify them by noting the color of the pH paper. | https://www.youtube.com/watch?v=r3hirzIWILM | Complete table 2.2 of NCERT by performing activity with pH paper | |
| | | Discuss the importance of pH in everyday life | | | |
| | | Salts- its types and pH | Associate formation of salts to various reactions | https://www.youtube.com/watch?v=1 | Prepare a table containing ten salts with their respective acids and bases from which they are formed |
| | | Some important salts of Sodium and calcium- preparation, properties and uses. | *Identify the parent acid and base from which the salt is formed | https://www.youtube.com/watch?v=TqWflluOP0 | |
| | | Justify the various uses of salts in daily life and industry | | After watching link prepare an assignment | |
| | Water of crystallization | understand the meaning and role of water of crystallization in determining the color of the salt | https://www.youtube.com/watch?v=BGhIPzx49ik | *Find out any 5 salts which have water of crystallization | |

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| | CHAPTER-3 | | | |
| | METALS AND NON METALS | | | |
| | Classification of elements | Demonstrate the properties of metals and non-metals | https://www.youtube.com/watch?v=AJbe5THaNuU | Study the physical properties of metals using small pieces of metals like iron, copper, aluminium, gold and silver |
| | Physical properties of metals and non-metals and its applications | Compare the properties of both metals and non-metals | | |
| | | Identify the metals and non-metals from the given samples | | |
| REVISION AND TEST | | | | |
| JUNE | SUMMER BREAK | | | |
| JULY | CHAPTER-3 | | | |
| | METALS AND NON-METALS (CONTD.) | | | |
| | Chemical properties of metals and non-metals | Associate the reactivity of metals on the basis of chemical reactions | https://www.youtube.com/watch?v=ynN5vLW9F4 | After watching the link enlist 5 chemical differences between metals and non-metals |
| | | | https://www.youtube.com/watch?v=5ffu3LaRZFM | |
| | Reactivity series | Tabulate the reactivity series of metals | | Solve the assignment based on reactivity series |
| | | Arrange the metals into ascending and descending order of reactivity | https://www.youtube.com/watch?v=19kSxlQWXKo | |
| | Electron dot structure and ionic bonding | Illustrate electronic configuration of elements | | |
| | | Correlate valency and type of bond formed | https://www.youtube.com/watch?v=9tm2RGdT | |
| | Properties of ionic compounds | Draw schematic diagrams and study the properties of ionic compounds | https://www.youtube.com/watch?v=rHKuggjSU_w | Find out few compounds having ionic bond, also show the electron transfer in them |
| AUG | CHAPTER -4 | | | |
| | CARBON AND ITS COMPOUNDS | | | |

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| | Importance of the carbon element | Discover the application of carbon in everyday life | https://www.youtube.com/watch?v=PWd29Gbiw68 | Compile the various substances that are used in daily life which contains carbon |
| | Versatile nature of carbon | Illustrate carbon with 4 valence electrons forming only covalent bonds | https://www.youtube.com/watch?v=gipyujuKMf4 | On the basis of tetravalency of carbon enlist any 5 compounds of carbon |
| | -tetravalency | | https://byjus.com/chemistry/introduction-to-carbon-compounds/ | |
| | -catenation | | | |
| | Covalent bonding in carbon compounds Homologous series | Correlate the number of bonds formed to the number of pairs of electrons shared | https://www.youtube.com/watch?v=ygQrhTcK9J0 | Draw the electron dot of the compounds given in the assignment |
| | | Classify the homologous series and its characters | | |
| | | Apply the general formula and identify the homologous series | https://www.youtube.com/watch?v=ivy6NBCC6to | Create a chart of homologous series of alkane, alkenes and alkynes on A4 size sheet |
| | | | https://www.youtube.com/watch?v=Q7I2R6YWWwo | |
| REVISION | | | | |
| SEPT | EXAMINATION | | | |
| OCT | CHAPTER- 5 | | | |
| | PERIODIC CLASSIFICATION OF ELEMENTS | | | |
| | Classification of elements | Classify elements according to their properties | https://www.youtube.com/watch?v=EUyf17I2hmw | Identify any five areas in your home where you do classification |
| | -Doberneir triads | | | |
| | Newland law of octaves and its limitations | Discover salient features of every classification | | Create a short video dedicated to different scientist who showed their participation in the discovery of Modern Periodic table |
| | Mendeleev periodic law and table | Understand the changes in classification over time | https://www.youtube.com/watch?v=0vIScP0aXN8 | |
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| | Merits and demerits of Mendeleev periodic table | Find out the achievements and limitations of every classification | https://www.youtube.com/watch?v=GyNNMHLPCrY | Try to find at least 5 more facts about the Modern Periodic table that you have not studied in NCERT |
| | Modern periodic law and table | Discover the salient features of the periodic table | | |
| | | Understand the advantages and disadvantages of the modern periodic table | https://byjus.com/chemistry/modern-periodic-table-modern-periodic-law/ | Learn the atomic mass and number of first 30 elements |
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| NOV | CHAPTER- 5 | | | |
| | PERIODIC CLASSIFICATION OF ELEMENTS(contd.) | | | |
| | Periodic properties | Predict the properties of the element from its position in the periodic table | https://www.youtube.com/watch?v=CbroKaLFoL8 | Prepare a chart representing the trends of all the periodic properties collectively |
| | -Atomic size | | | |
| | -Valency | | | |
| | Metallic and Non-metallic character | Appreciate the periodic trends in the properties of elements | https://www.youtube.com/watch?v=NZLiFrwyOtg | Solve the assignment based on the periodic properties |
| -Electronegativity | Calculate the number of valence electrons and the valency of an element | | | |
| REVISION AND TEST | | | | |

| DELETED CHAPTERS | | |
|------------------|--|---|
| SR.NO | NAME OF THE CHAPTER/TOPICS | SUGGESTIVE ACTIVITIES |
| 1 | CHAPTER-3 Metals and Non-metals: Basic Metallurgical processes; Corrosion and its prevention | Create a flow chart representing extraction techniques for different metals |
| 2 | CHAPTER - 4 Carbon and its Compounds: Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference between saturated hydro carbons and unsaturated hydrocarbons. | On the basis of chemical properties of alcohols and carboxylic acids investigate any 5 uses each of them in daily life |
| 3 | Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents | <p>Search the method used by industries for preparation of soap</p> <hr/> <p>Find out the salts that makes the water hard</p> |

***** These chapters will be assessed for internal assessment only and not to be assessed in board examination.**