Plan of Work

**Chemistry**

**Grade 8**

For examination of 2025

**HoD:** Mr Foolessur

**Prepared by:** DEPT OF CHEMISTRY

Contents

[Introduction 3](#_Toc31009124)

[FIRST TERM [10/01/2025 – 11/04/2025]](#_Toc31009125) 4

[Topic: 1 The language of chemistry](#_Toc31009126) 4

First Term Examinations………………………………………………………………………………………………………………………………………………………………………………………………….…7

[SECOND TERM [28/04/2025 – 18/07/2025]](#_Toc31009128) 8

[Topic2: Acids,Bases and Salts](#_Toc31009129) 7

Second Term Examinations………………………………………………………………………………………………………………………………………………………………………………………. …..12

[THIRD TERM [11/08/2025– 31 /10/2025] 13](#_Toc31009130)

[Topic 3: Mixtures and separation techniques 13](#_Toc31009131)

Third Term Examinations……………………………………………………………………………………………………………………………………………………………………………………………… ….16

**Introduction**

**Prescribed textbooks:**

* Science for Grade 8 (MIE Text book)

**Recommended prior knowledge**

Learners beginning this course are expected to have knowledge of the following topics:

|  |  |
| --- | --- |
|  | **Topic** |
|  | Element and symbols |
|  | physical and chemical changes |

**Websites and videos**

This plan of work includes website links providing direct access to internet resources. Modern College is not responsible for the accuracy or content of information contained in these sites. The inclusion of a link to an external website should not be understood to be an endorsement of that website or the site's owners (or their products/services).

The website pages referenced in this plan of work were selected when the plan of work was produced. Other aspects of the sites were not checked and only the particular resources are recommended.

# FIRST TERM [10/01/2025 – 11/04/2025]

## Topic: 1 The language of chemistry

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| ***Students should be able to:***  a) define the terms element,symbol and valency |  | pg 163, 164, 165 |  |  |
| b) recall the symbols and valencies of some elements |  | pg 177, 179 | . |  |
| c) Recognise an atom as the smallest part of an element  that can exist |  | pg 167, 168 |  |  |
| d) Demonstrate an understanding that molecules are  made up of atoms that are chemically combined  together |  | pg 170, 171,172,173 |  |  |
| e) Demonstrate an understanding of the term chemical  formula |  | pg 182,183 |  |  |
| f) Recognise a radical as a group of atoms having a  formula and a valency |  |  |  |  |
| g) Identify the following as radicals and state their  formulae and respective valency : hydroxide,  carbonate , sulfate, ammonium and nitrate |  | pg 185 |  |  |
| h) work out the chemical formulae of compounds using  symbols and valencies |  | pg 197 no14 |  |  |
| i) Recognise the chemical formulae of some common  compounds |  |  |  | https://youtu.be/4jISjQvdyhs |
| j)infer that chemical reactions are chemical changes |  | pg 187, 190 |  |  |
| k) Distinguish between reactants and products |  | pg 195,196,197198,199 |  |  |
| l) write word equations to represent chemical reactions |  |  |  |

## 

## 

## First Term Examinations

.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45 mins | MCQ + Structured questions | 50 | Combined with marks scored in biology/physics and scaled to 100% |

Single paper **(45mins)** with 10 mcq’s worth 10 marks + variable numbers of structured questions worth 40 marks. Students may be asked to describe simple experiments and draw diagrams to test a given scientific concept in the structured questions

# SECOND TERM [28/04/2025 – 18/07/2025]

## Topic: Acids,Bases and Salts

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| **a)** identify acids,bases and salts as compounds |  | pg 242 , 243,245 |  | https://youtu.be/i2x4foEuRcI |
| **b)** identify some acids present in the school laboratory and in food items |  |  |  |  |
| **c)** work out the chemical formulae of common acids |  |  |  |  |
| **d)** investigate some properties of acids such as  ● acids have sour taste  ●reactions of metals with acids to produce salt and  hydrogen gas  ●reactions of acids with metal carbonates to produce salt,water and carbon dioxide |  |  |  |  |
| **e)** investigate some properties of bases |  |  |  |  |
| f) work out the chemical formulae of some bases |  | pg 254,255 |  |  |
| g) distinguish between bases and alkalis |  | pg 256 |  | https://youtu.be/gRZ-2IbLd34 |
| h) demonstrate an understanding of the pH scale |  | pg 259,260 |  |  |
| i) Classify substances as strong and weak acids or bases |  |  |  |  |
| j) define an indicator |  |  |  |  |
| k) identify litmus,methyl orange and phenolphthalein as  indicators |  |  |  |  |
| l) classify subsatances as acids or bases through use of  indicators |
| m) Define neutralization as a reaction between acids  and alkalis to produce salt and water |  |  |  | https://youtu.be/RmnT9jwX4gQ |
| n) Name the salt obtained from the neutralization of  different acids |  | pg 266,268 |  |  |
| o)Predict the temperature change during the reaction  of acids with metals or bases |
| p)Describe the preparation of hydrogen gas from the  reaction of dilute acids on metal  q)State how the presence of hydrogen gas can be tested by using a lighted splinter |  | pg 269,270  pg 271,272,273  pg 278,279,280281 |  |  |

**Second Term Examinations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45mins | MCQ + Structured questions | 50 | Combined with marks scored in biology/physics and scaled to 100% |

Single paper **(45mins)** with 10 mcq’s worth 10 marks + variable numbers of structured questions worth 40 marks. Students may be asked to describe simple experiments and draw diagrams to test a given scientific concept in the structured questions

# THIRD TERM [11/08/2025– 31/10/2025]

## Topic: Mixtures and separation techniques

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| **a)** Recall mixtures and their properties |  | pg52,53 |  |  |
| **b)** identify solutions and suspensions and give examples  of both |  | pg 55,56,57 |  |  |
| **c)** distinguish between the properties of solutions and  suspensions |  |  |  |  |
| **d)** Explain the differences in properties that allow the  separation of the components of a mixtre |  | pg 59 |  |  |
| **e)** investigate how mixtures can be separated into their  respective components by the following techniques :  magnetic attraction, filtration, decantation and  evaporation |  | pg60,63,64,65,66,6768,69 |  | **https://youtu.be/yXCeuSiTOug** |
| f) draw labeled diagrams to illustrate the steps involved in separation techniques |  | pg70,71,72 |  |  |
| g) Explain the principles involved in magnetic attraction, filtration, decantation and evaporation as separation techniques |  |  |  |  |
| h) explain what alloys are and identify alloys as mixtures |  | pg73,74 |  |  |
| i) identify bronze, brass, steel and stainless steel as alloys and state their respective components and composition |  |  |  |  |
| j) show understanding of the uses of these alloys and relate their uses to their properties  K) ) explain why respiration and photosynthesis are chemical changes |  | pg78,79,80,81,82 |  |  |

**Third Term Examinations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45 mins | MCQ + Structured questions | 50 | Combined with marks scored in biology/physics and scaled to 100% |

Single paper **(45mins)** with 10 mcq’s worth 10 marks + variable numbers of structured questions worth 40 marks. Students may be asked to describe simple experiments and draw diagrams to test a given scientific concept in the structured questions