Plan of Work

**Chemistry**

**Grade 7**

For examination from 2025

**HoD:** Mr Foolessur

**Prepared by:** DEPT OF CHEMISTRY

Contents

[Introduction 3](#_Toc149030980)

[FIRST TERM [10/01/2025 – 11/04/2025] 4](#_Toc149030981)

[Topic: 1 Everything is about matter 4](#_Toc149030982)

[SECOND TERM [28/04/2025 – 18/07/2025] 8](#_Toc149030983)

[Topic: Elements, Compounds & Mixtures 8](#_Toc149030984)

[THIRD TERM [11/08/2025– 31 /10/2025] 12](#_Toc149030985)

[Topic: Air 12](#_Toc149030986)

## Introduction

**Prescribed textbooks:**

* Science for Grade 7 (MIE)

**Recommended prior knowledge**

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

|  |  |
| --- | --- |
|  | **Topic** |
|  | composition of air |
|  | air pollutants |
|  | changes of states |

**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 Everything is about matter

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| ***Students should be able to:***  a) recognize that everything around us is made up of  matter |  | pg 88 - 1 |  |  |
| b)investigate the properties of the three states of  matter |  | . |  |
| c)investigate the properties of the three states of  matter |  | pg 88 – 2, 3,  pg 92 - 12 |  |  |
| d) compare and contrast the properties of the three  states of matter  e) infer that matter is made of tiny particles |  | pg 89 – 4, 5  pg 90 – 6,  pg 93 - 13 |  | https://youtu.be/bMbmQzV-Ezs |
| f) use illustrations and models to represent and explain  the arrangement and movement of particles in each  of the three states of matter |  |  |  |  |
| g) investigate how changes of states of matter are  brought about by increase or decrease in  temperature |  | pg 90 – 7, pg 91 – 8, 9 |  |  |
| h) infer that matter can undergo change through simple  investigations |  | pg 91 – 10 |  |  |
| i) demonstrate an understanding of physical and chemical changes |
| j) infer that a physical change does not lead to the  formation of new substance(s) |  | pg 92 - 11 |  | <https://youtu.be/BgM3e8YZxuc> |
| k) identify chemical change as a change which leads to  formation of new substance(s) |  |  |  |
| l) compare and contrast physical and chemical changes  through simple experiments |  |  |  |
| m) compare and contrast physical and chemical changes through simple experiment |  | pg 87 MCQ 1 - 12 |  |  |

## 

**First Term Examinations**

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|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45mins | MCQ + STRUCTURED | 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: Elements, Compounds & Mixtures

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| **a)** identify elements as the building blocks of matter |  | pg 125 – 1 |  |  |
| **b)** demonstrate understanding of the terms elements and symbols |  | pg 125 – 2, 3, |  |  |
|  |  |  | . |  |
| **c)** recognize the periodic table as a classification of elements |  |  |  |  |
| **d)** identify periods and groups in the periodic table |  |  |  |  |
| **e)** locate metals and non-metals in the periodic table |  |  |  |  |
| f) carry out simple investigations to compare and contrast the properties of metals and non-metals (e.g. physical appearance, ductility, malleability, conduction of electricity) |  | pg 127 – 7 |  | https://youtu.be/b0hUv2\_NMbE |
| g) identify some metals and non-metals and state their  importance |  | pg 128 – 9 (a)  pg 126 – 4, 5, 6 |  | https://youtu.be/uWfhB9q2GHc |
| h) distinguish between mixtures and compounds |
| i) identify some common compounds and their  constituent elements |
| j) infer that rusting results in the formation of new compounds |  | pg 128 – 8 |  |  |
| k) explain why rusting is a chemical change |  |  |  |  |
| l) infer that rusting results in the formation of new  compounds |
| m) explain why rusting is a chemical change |  |  |  |  |
| n) identify some common mixtures and their components |  | pg 128 – 9 (b, c)  pg 124 - 1 - 13 |  |  |

**Second Term Examinations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45mins | MCQ + STRUCTURED | 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: Air

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Learning Objectives** | **Worked Examples** | **Classwork & Homework** | **Extra Work** | **Resources** |
| **a)** identify the components of pure air and state their percentage composition |  | pg 221 – 2 (a), 3 |  | https://youtu.be/wLBghFGeFQw |
| **b)** state the properties of pure air |  | pg 220 – 2, 6 |  |  |
| **c)** discuss the importance of air for burning, respiration and photosynthesis |  | pg 220 – 10 |  |  |
| **d)** state that air is a mixture |  |  |  |  |
| **e)** discuss the uses of oxygen, nitrogen, carbon dioxide  and noble gases |  |  |  |  |
| f) state that air is a mixture |  |  |  |  |
| g) discuss the uses of oxygen, nitrogen, carbon dioxide  and noble gases |  | pg 221 - 2 (a, d)  pg 222 – 4, 5 |  |  |
| h) show presence of water vapor and carbon dioxide in air |  |  |  |  |
| i) describe laboratory preparation of oxygen and carbon dioxide |  |  |  |  |
| j) investigate how the presence of oxygen and carbon dioxide can be tested |  | pg 221 – 2 (c) |  | https://youtu.be/ktIxIesu1U0 |
| K) explain why respiration and photosynthesis are chemical changes |

**Third Term Examinations**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Component** | **Time Allocation** | **Type** | **Marks** | **weightage** |
| single paper | 45mins | MCQ + STRUCTURED | 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