**Learning Unit**

**The Department of Science Level of Students: M. 3**

**Subject Code: SC20205 Subject: Universal Science 5**

**Number of Credit: 1.0 Time: 40 Periods**

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| **Learning Unit** | **Time/ hours** | **Learners’ Key Competencies - Activities** | **Teaching Materials** | **Evaluation Tools** |
| **1. Electromagnetism**1.1 Electric Current1.2 Potential Difference , Resistance and Current1.3 Measuring Instruments1.4 Electric Power1.5 Conversion of Electricity to Other Forms of Energy1.6 Using Appliances Efficiently1.7 What is Electronics ?1.8 Electromagnetic Waves and Electromagnetic Induction . | **20**22242224 | **Learners’ Key Competencies** thinking capability problem solving capability scientific process, and scientific skills**Activities**5E Model | 1. Textbook
2. Supplementary Sheets
3. Work sheets
4. PowerPoint Presentation
5. Websites
6. Learning Resources Centre
7. Laboratory Apparatus
 | 1. Quizzes
2. Tests
3. Exercises
4. Mind-map
5. Observation form
 |
| **2. Genetics**2.1 Heredity and Gene2.2 Characteristics and Alleles2.3 Genotype and Phenotype2.4 Mitosis and Meiosis2.5 Mutations and Hereditary Diseases2.6 The importance of a Pre-wedding Check-up2.7 Genetic Engineering | **10**  2212111 |

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| **Learning Unit** | **Time/ hours** | **Learners’ Key Competencies - Activities** | **Teaching Materials** | **Evaluation Tools** |
| **3. Ecology**3.1 The Environment3.2 Interactions of Organisms with Abiotic Components .3.3 Interactions among Organisms3.4 Movement of Energy and Nutrients . 3.5 Ecosystems3.6 Biodiversity3.7 The Need for Conservation . | **10**  1122211 | **Learners’ Key Competencies** thinking capability problem solving capability scientific process, and scientific skills**Activities**5E Model | 1. Textbook2. Supplementary Sheets3. Work sheets4. PowerPoint Presentation1. Websites
2. Learning Resources Centre
3. Laboratory Apparatus
 | 1. Quizzes2. Tests3. Exercises4. Mind-map5. Observation form |