**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 Current  1.2 Potential Difference , Resistance and Current  1.3 Measuring Instruments 1.4 Electric Power1.5 Conversion of Electricity to Other Forms of Energy  1.6 Using Appliances Efficiently  1.7 What is Electronics ? 1.8 Electromagnetic Waves and Electromagnetic Induction . | **20**  2  2  2  4  2  2  2  4 | **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 Gene  2.2 Characteristics and Alleles  2.3 Genotype and Phenotype  2.4 Mitosis and Meiosis 2.5 Mutations and Hereditary Diseases 2.6 The importance of a Pre-wedding Check-up 2.7 Genetic Engineering | **10**  2  2  1  2  1  1  1 |

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| **3. Ecology**  3.1 The Environment  3.2 Interactions of Organisms with Abiotic Components .  3.3 Interactions among Organisms 3.4 Movement of Energy and Nutrients . 3.5 Ecosystems  3.6 Biodiversity  3.7 The Need for Conservation . | **10**   1  1  2  2  2  1  1 | **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   1. Websites 2. Learning Resources Centre 3. Laboratory Apparatus | 1. Quizzes  2. Tests  3. Exercises  4. Mind-map  5. Observation form |