**Learning Unit**

**The Department of Science Level of Students: M. 1**

**Subject Code: SC20201 Subject: Universal Science 1**

**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. Introduction to the Scientific Method**  1.1Science and Technology  1.2 The Major Elements of Science  1.3 The Scientific Method  1.4 The branches of Science 1.5 Safety Rules in the Laboratory  1.6 Laboratory Apparatus  1.7 Handling hazardous substances | **7**  1  1  1  1  1  1  1 | **Learners’ Key Competencies**  Science Knowledge, scientific process, and scientific skills   * Experiment * Explanation * Classification * Organizing Data and Communication * Interpreting Data and Conclusion * Questioning/ Problem Determination * Hypothesis * Data Collection * Analyzing Data * Conclusion and Communication   **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. Concept Mapping 5. Observation form 6. Behavior   Observation |
| **2. The Cell- The unit of Life**  2.1 Microscope  2.2 What is a cell?  2.3 Unicellular and Multicellular Organisms  2.4 Animal Cells  2.5 Plant cells  2.6 Prokaryotes and Eukaryotes | **13**  2  2  1  3  3  2 |

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| **3. Botany**  3.1 The importance of Plants  3.2 Photosynthesis  3.3 Respiration  3.4 Nutrients Needed for Healthy Growth of Plants  3.5 Transport in Plants  - diffusion and osmosis in plants  - transport of water, mineral and food in plants  3.6 Reproduction in Plants  - reproductive parts of plant  - pollination  - fertilisation  - parts of seed  - asexual reproduction in flowering plants | **20**  1  3  3  1  6  6 | **Learners’ Key Competencies**  Science Knowledge, scientific process, and scientific skills   * Experiment * Explanation * Classification * Organizing Data and Communication * Interpreting Data and Conclusion * Questioning/ Problem Determination * Hypothesis * Data Collection * Analyzing Data * Conclusion and Communication   **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. Concept Mapping  5. Observation form  6. Behavior  Observation |