**Learning Unit**

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

**Subject Code: SC20202 Subject: Universal Science 2**

**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.Chemical Elements**1.1 Elements and Compounds1.2 Atoms and Molecules1.3 Classifying Elements1.4 Properties of metals and non-metals1.5 Pure Substances and mixtures1.6 Atomic Structure1.7 Chemical Bonds1.8 The molecules structure of matter1.9 Properties and uses of materials | **20**222242222 | **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  |

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| **2. Temperature and Heat**2.1 The nature of heat2.2 Thermal Equilibrium2.3 Effects of heat 2.3.1 Change of State 2.3.2 Thermal expansion  1 Thermal expansion of solid 2 Thermal expansion of liquid 3 Thermal expansion of gases2.4 Temperature and its measurement 2.4.1 Scales of thermometer 2.4.2 Types of thermometer2.5 Heat transfer  2.5.1 conduction 2.5.2 convection 2.5.3 radiation  | 1311434 | **Learners’ Key Competencies** Science Knowledge, scientific process, and scientific skills* Experiment
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 **Activities** 5E Model  | 1. Textbook2. Supplementary Sheets3. Work sheets4. PowerPoint Presentation5. Websites6. Learning Resources Centre7. Laboratory Apparatus | 1. Quizzes2. Tests3. Exercises4. Concept Mapping5. Observation form6. Behavior Observation  |

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| **3. The Atmosphere**3.1 Air pressure and Altitude3.2 The layers of the atmosphere3.3 The types of storms3.4 Weather forecasting3.5 Factors affecting climate3.6 Climate change 3.6.1 Green house effect 3.6.2 El nino and La nina 3.6.3 Global warming | **7**111112 | **Learners’ Key Competencies** Science Knowledge, scientific process, and scientific skills* Experiment
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