**Learning Standards and Indicators**

**The Department of Science Level of Students: M. 2**

**Subject Code: SC20203 Subject: Universal Science 3**

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| **Indicators** | **Key Word** **(คำสำคัญ)** **จากตัวชี้วัด** | **Learners’ Key Competencies - Activities** | **21st-Century Skill/****Local Wisdom/Thai Wisdom/** **Sufficiency Economy Philosophy /School Focus** | **Desirables** |
| 1. Explain the term cell, tissue, organ and organ systems
 | Explain | - communication capability - thinking capability - problem solving capability - capability in applying life skills and - capability in technological application- 5E Model - CIPPA- Mind Maps - Group work | - Critical Thinking and Problem Solving- Communications, Information, and Media Literacy,- Computing and ICT Literacy,- Creativity and Innovation, | 1. Honesty and integrity2. Self-discipline3. Avidity for learning4.Dedication and commitment to work5. Cherishing Thai-ness6. Public-mindedness7. Gentlemen of Assumption College |
| 1. Compare a cell to an organism
 | Compare |
| 1. Name the organs and explain the structures , functions and operations of digestive system, respiratory system, excretory system, circulatory system, reproductive systems of human including human nervous system.
 | NameExplain |
| 1. Explain relationship between various human systems and apply the knowledge to use.
 | ExplainApply |
| 1. Explain what a mixture is
 | Explain |
| 1. Explain the terms solute , solvent , solution and suspension
 | Explain |
| **Indicators** | **Key Word** **(คำสำคัญ)** **จากตัวชี้วัด** | **Learners’ Key Competencies - Activities** | **21st-Century Skill/****Local Wisdom/Thai Wisdom/** **Sufficiency Economy Philosophy /School Focus** | **Desirables** |
| 1. Explain the meaning and compare properties of solutions and suspension
 | Explain | - communication capability - thinking capability - problem solving capability - capability in applying life skills and - capability in technological application- 5E Model - CIPPA- Mind Maps - Group work | - Critical Thinking and Problem Solving- Communications, Information, and Media Literacy,- Computing and ICT Literacy,- Creativity and Innovation, | 1. Honesty and integrity2. Self-discipline3. Avidity for learning4.Dedication and commitment to work5. Cherishing Thai-ness6. Public-mindedness7. Gentlemen of Assumption College |
| 1. Describe factors that affect the formation of a solution
 | Describe |
| 1. Differentiate between solutions and suspensions
 | Differentiate |
| 1. Describe different methods of separation of mixtures , such as evaporation ,crystallization ,refining and chromatography
 | Describe |