



Course Description

Subject: Practical Science 1

Code: SC21202

Hours: 40

Credit: 1.0

Class: Secondary 1A-B

Semester: 1 / 2014

Instructor: Ms. Vanessa Kay Melecio

Unit	Learning Objectives
<p>1. Introduction to Science</p> <p>1.1 What is science?</p> <p>1.2 Science Laboratory</p> <p>1.3 Steps in Scientific Investigation</p> <p>1.4 Physical Quantities and Their Units</p> <p>1.5 The Concept of Mass</p> <p>1.6 Measuring Tools</p> <p>1.7 The Importance of Standard Units</p>	<p>1. To learn the definition and branches of Science</p> <p>2. To recognize different careers in Science which can help them choose their career path in the near future</p> <p>3. To familiarize them with laboratory safety rules and symbols and chemical hazard symbols</p> <p>4. To educate them with the proper usage and care of the laboratory apparatuses and equipment</p> <p>5. To identify the steps of the scientific method for research and experiment purposes</p> <p>6. To measure and calculate mass, volume, length, density and area of substances using tools that are available at hand.</p> <p>7. To convert measurement values using the standard unit and explain its importance.</p>
<p>2. Basic Science Process Skills</p> <p>2.1 Basic Science Process Skills</p> <p>3. Famous Scientists in History</p> <p>3.1 List of Famous Scientists in History and Their Contribution</p> <p>3.2 Famous Thai Scientists and Their Contribution</p>	<p>8. To identify the process skills in Science that can be developed and applied by students as they go through their own scientific investigation.</p> <p>9. To name some famous scientists who made a difference in history and identify their contributions in the development of science and technology.</p>

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Learning Objectives
1. Pre-midterm	1. Work sheets, short tests and long tests (other tests) 2. Other topic related activities 3. Seatworks/Boardworks 4. Project 5. Laboratory Activities 6. Oral Participation	1. Question and Answer/Teacher Review 2. Tests Papers (Short Quizzes/Chapter Test/Unit Test) 3. Worksheets 4. Notebooks	25	1. To learn the definition and branches of Science 2. To recognize different careers in Science which can help them choose their career path in the near future 3. To familiarize them with laboratory safety rules and symbols and chemical hazard symbols 4. To educate them with the proper usage and care of the laboratory apparatuses and equipments 5. To identify the steps of the scientific method for research and experiment purposes 6. To measure and calculate mass, volume, length, density and area of substances using tools that are available at hand. 7. To convert measurement values using the standard unit and explain its importance.
2. Midterm test	Midterm Examination	- Test Paper	20	1 - 7

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Learning Objectives
3. Pre-final	1. Work sheets, short tests and long tests (other tests) 2. Other topic related activities 3. Seatworks/Boardworks 4. Project 5. Laboratory Activities 6. Oral Participation	1. Question and Answer/Teacher Review 2. Tests Papers (Short Quizzes/Chapter Test/Unit Test) 3. Worksheets 4. Notebooks	25	8. To identify the process skills in Science that can be developed and applied by students as they go through their own scientific investigation. 9. To name some famous scientists who made a difference in history and identify their contributions in the development of science and technology.
4. Final test	Final Examination	- Test Paper	20	8 - 9
5. Desirable Characteristics	1. Checking assigned tasks 2. Observation	1. Observation - Responsibility 4 marks - Honesty 3 marks - Discipline 3 marks	10	Love of nation, religion and king Honesty and integrity Self-discipline Avidity for learning Observance of principles of sufficiency, economy Philosophy in one's way of life Dedication and commitment to work Cherishing Thai-ness Public-mindedness Awareness of drugs and vice Assertive leadership

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Learning Objectives
6. Competencies	Teacher Observation	Students	-	Communication capacity Thinking capacity Problem-solving capacity Capacity for applying life skills Capacity for technological application
7. Analytical reading and writing	1. Test in each topics/units 2. Examining homework 3. Major Examination	1. Tests 2. Laboratory Papers 3. Major examination	-	-



Course Description

Subject: Practical Science 2

Code: SC21204

Hours: 40

Credit: 1.0

Class: Secondary 1A-B

Semester: 2 / 2014

Instructor: Ms. Vanessa Kay Melecio

Unit	Objectives
1. Science Process Skills 1.1 Basic Science Process Skills	<ol style="list-style-type: none">1. To identify the basic science process skills that can be developed and applied by students as they go through their own scientific investigation.2. Practice the use of the basic science process skills in an experimental procedure.
2. Investigatory Project/Research Paper 2.1 Investigatory Project	<ol style="list-style-type: none">3. To identify the different parts of a research paper and practice themselves on how to technically write such in preparation to making their own scientific investigation.4. To perform different experiments and be able to apply what they learned from it in life.5. To display their work, write reports and/or explain the concepts, processes and results of the project or task so that others can understand

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Learning Objectives
1. Pre-midterm	1. Work sheets, short tests and long tests (other tests) 2. Other topic related activities 3. Seatworks/Boardworks 4. Project 5. Laboratory Activities 6. Oral Participation	1. Question and Answer/Teacher Review 2. Tests Papers (Short Quizzes/Chapter Test/Unit Test) 3. Worksheets 4. Laboratory Sheets 5. Notebooks	25	1. To identify the basic science process skills that can be developed and applied by students as they go through their own scientific investigation. 2. Practice the use of the basic science process skills in an experimental procedure.
2. Midterm test	Midterm Examination	- Test Paper	20	1 - 2
3. Pre-final	1. Work sheets, short tests and long tests (other tests) 2. Other topic related activities 3. Seatworks/Boardworks 4. Project 5. Laboratory Activities 6. Oral Participation	1. Question and Answer/Teacher Review 2. Tests Papers (Short Quizzes/Chapter Test/Unit Test) 3. Worksheets 4. Laboratory Sheets 5. Notebooks	25	3. To identify the different parts of a research paper and practice themselves on how to technically write such in preparation to making their own scientific investigation. 4. To perform different experiments and be able to apply what they learned from it in life. 5. To display their work, write reports and/or explain the concepts, processes and results of the project or task so that others can understand
4. Final test	Final Examination	- Test Paper	20	3 - 5

Measurement and Evaluation	Evaluation Method	Assessment tool	Marks	Learning Objectives
5. Desirable Characteristics	1. Checking assigned tasks 2. Observation	1. Observation - Responsibility 4 marks - Honesty 3 marks - Discipline 3 marks	10	Love of nation, religion and king Honesty and integrity Self-discipline Avidity for learning Observance of principles of sufficiency, economy Philosophy in one's way of life Dedication and commitment to work Cherishing Thai-ness Public-mindedness Awareness of drugs and vice Assertive leadership
6. Competencies	Teacher Observation	Students	-	Communication capacity Thinking capacity Problem-solving capacity Capacity for applying life skills Capacity for technological application
7. Analytical reading and writing	1. Test in each topics/units 2. Examining homework 3. Major Examination	1. Tests 2. Laboratory Papers 3. Major examination	-	-