

St. Mary's College

Integrated Science

Form One

Course Outline 2016-2017

Term 1

Proposed Date/ Week	Unit/ Section	Topics	Modules
Wk 1-3	01	Scientific Method and Safety in Science	<ul style="list-style-type: none"><li>• Science and scientific processes</li><li>• Impacts of science and technology</li><li>• Scientific skills</li><li>• Writing a lab report</li><li>• Making and labeling scientific drawings</li><li>• Scientific apparatus</li><li>• Safety in science and laboratory</li></ul>
Wk 4-5	02	Scientific Measurement and SI Units	<ul style="list-style-type: none"><li>• Measurement and SI units</li><li>• Measuring length</li><li>• Measuring volumes</li><li>• Measuring mass</li><li>• Measuring temperature</li></ul>
Wk 6-8	03	Living Organisms	<ul style="list-style-type: none"><li>• Characteristics of living things</li><li>• Animal and Plant cells</li><li>• Using a microscope</li><li>• Preparing a specimen of animal cells</li><li>• Structure of an animal cell</li><li>• Preparing a specimen of plant cells</li><li>• Structure of plant cells</li></ul>
Wk 9-12	04	Cells, tissues and organs	<ul style="list-style-type: none"><li>• Unicellular organisms</li><li>• Respiratory system</li><li>• Circulatory system</li><li>• Digestive system</li><li>• Excretory system</li><li>• Skeletal and muscular systems</li><li>• Reproductive system</li><li>• Specialized animal cell</li><li>• Plant systems</li><li>• Specialized plant cells</li><li>• Cellular processes</li></ul>
Wk 13			Revision of term's work

Term 2

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1-4	01	Properties of Matter	<ul style="list-style-type: none"> <li>• Properties of gases</li> <li>• Density</li> <li>• States of matter</li> <li>• Particles of matter</li> <li>• The effect of heat on matter</li> <li>• Melting and solidifying</li> <li>• Boiling and condensation</li> <li>• Sublimation</li> </ul>
Wk 5-11	02	Atoms and Elements	<ul style="list-style-type: none"> <li>• Common elements</li> <li>• Atoms</li> <li>• Structure of atom</li> <li>• Electronic structure</li> <li>• Periodic table</li> <li>• Compound and mixtures</li> <li>• Atoms and molecules</li> <li>• Molecules and elements</li> </ul>
Wk 12-13			Revision of term's work

Term 3

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1-4	01	Forces	<ul style="list-style-type: none"> <li>• Action of forces</li> <li>• Types of forces</li> <li>• Friction</li> <li>• Water resistance and air resistance</li> <li>• Representing forces</li> <li>• Resultant forces</li> <li>• Mass and weight</li> <li>• Gravity</li> <li>• Force and Pressure</li> <li>• Pressure and Gases</li> </ul>
Wk 5-8	02	Energy	<ul style="list-style-type: none"> <li>• Potential energy</li> <li>• Kinetic energy</li> <li>• Heat and light energy</li> <li>• Sound energy</li> <li>• Electrical energy</li> <li>• Nuclear energy</li> <li>• Thermal Energy</li> <li>• Energy transformations</li> <li>• Renewable energy sources</li> <li>• Biofuels</li> <li>• Conservation of energy</li> </ul>
Wk 9			Revision of term's work