

## St. Mary's College

### Integrated Science

#### Form Three

#### Course Outline

#### Term 1

Proposed Date/ Week	Unit/ Section	Topics	Modules
1-3	01	Human Body Systems: The Reproductive Systems	<ul style="list-style-type: none"><li>• Definition of Reproduction</li><li>• Types of reproduction:- asexual and sexual</li><li>• Puberty</li></ul>
	02		<ul style="list-style-type: none"><li>• Male reproductive structures</li><li>• Female reproductive structures</li><li>• Gametes:- sperm and egg</li><li>• Menstrual cycle</li></ul>
	03		<ul style="list-style-type: none"><li>• Fertilisation- union of sperm and egg</li><li>• Formation of zygote, embryo and foetus</li><li>• Pregnancy</li><li>• Reproductive challenges- birth control and family planning.</li></ul>
4-6	01	Communicable Diseases of the Reproductive System	<ul style="list-style-type: none"><li>• Herpes, chlamydia and human papilloma virus</li><li>• Gonorrhoea, syphilis and HIV</li></ul>
	02		<ul style="list-style-type: none"><li>• Transmission and prevention of STDs</li><li>• HIV and AIDS: Contracting and living with HIV/AIDS</li></ul>
7-9	01	Environmental Impact of Human Activities	<ul style="list-style-type: none"><li>• Effect of human activities on the environment</li><li>• Urbanisation</li><li>• Industry</li></ul>
	02		<ul style="list-style-type: none"><li>• Genetically modified crops</li><li>• Invasive alien species</li><li>• Nature reserves</li><li>• Deforestation</li></ul>
	03		<ul style="list-style-type: none"><li>• Biodiversity</li><li>• Threatened species in Trinidad and Tobago</li><li>• Global warming</li></ul>
	04		<ul style="list-style-type: none"><li>• The greenhouse effect</li><li>• Biodegradable and Non-biodegradable</li></ul>

	05		<ul style="list-style-type: none"> <li>• Reducing demand to reduce waste</li> <li>• Reusing to reduce waste</li> <li>• Recycling to reduce waste</li> <li>• Improving the local environment</li> </ul>
9-11	01	Electricity	<ul style="list-style-type: none"> <li>• Conductors and insulators</li> <li>• Electricity and safety</li> <li>• Complete circuit</li> </ul>
	02		<ul style="list-style-type: none"> <li>• Cells and lamps</li> <li>• Measuring current</li> <li>• Circuit symbols</li> </ul>
	03		<ul style="list-style-type: none"> <li>• Constructing circuits from circuit diagrams</li> <li>• Connecting components in series</li> <li>• Connecting components in parallel</li> </ul>
Wk 12			Revision and Assessment

## Term 2

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1	05	Magnetism	<ul style="list-style-type: none"><li>• Magnetic and Non-magnetic materials</li><li>• Law of magnetic poles</li><li>• Magnetic fields</li></ul>
Wk 2			<ul style="list-style-type: none"><li>• Magnetic effect of an electric current</li><li>• Making an electromagnet</li></ul>
Wk 3			<ul style="list-style-type: none"><li>• Strength of an electromagnet</li><li>• Uses of permanent magnets and electromagnets</li></ul>
Wk 4	06	Light	<ul style="list-style-type: none"><li>• Light rays</li><li>• Pinhole camera</li><li>• Transparent, translucent and opaque</li></ul>
Wk 5			<ul style="list-style-type: none"><li>• Shadows</li><li>• Partial and full shadow</li><li>• Solar eclipse</li><li>• Lunar eclipse</li></ul>
Wk 6			<ul style="list-style-type: none"><li>• Reflection</li><li>• Refraction</li><li>• Real and apparent depth</li></ul>

Wk 7			<ul style="list-style-type: none"> <li>• Dispersion</li> <li>• Rainbows</li> </ul>
Wk 8	07	Chemical Bonding	<ul style="list-style-type: none"> <li>• Formation of ions</li> <li>• Gaining and losing different number of electrons</li> </ul>
Wk 9			<ul style="list-style-type: none"> <li>• Valency</li> </ul>
Wk 10			<ul style="list-style-type: none"> <li>• Different atoms sharing electrons</li> <li>• Diatomic molecules</li> </ul>
Wk 11			<ul style="list-style-type: none"> <li>• Metallic bonding</li> </ul>
Wk 12			Revision and Assessment

### **Term 3**

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1	08	Acids and Alkalis	<ul style="list-style-type: none"> <li>• Identifying acids</li> <li>• Strength of an acid</li> </ul>
Wk 2			<ul style="list-style-type: none"> <li>• Identifying alkalis</li> <li>• Strength of an alkali</li> </ul>
Wk 3			<ul style="list-style-type: none"> <li>• Acid-alkali reactions</li> <li>• Neutralisation and its products</li> </ul>
Wk 4			<ul style="list-style-type: none"> <li>• Acid-oxide reactions</li> <li>• Acid- carbonate reactions</li> </ul>
Wk 5			<ul style="list-style-type: none"> <li>• Acid-metal reactions</li> </ul>
Wk 6			<ul style="list-style-type: none"> <li>• Completing equations</li> </ul>
Wk 7			<ul style="list-style-type: none"> <li>• Revision</li> </ul>
			<ul style="list-style-type: none"> <li>• NCSE and End of Year Examinations</li> </ul>