

St. Mary's College

Integrated Science

Form 2

Course Outline

Term 1

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1	01	Diet and Health	<ul style="list-style-type: none">• Food groups• A Balanced diet• Diet, activity and age
Wk 2			<ul style="list-style-type: none">• The digestive system 1• The digestive system 2• The process of digestion
Wk 3			<ul style="list-style-type: none">• Food tests-starch and simple sugars• Food tests –proteins and fats• Energy values in food
Wk 4			<ul style="list-style-type: none">• Body Mass index• Weight gain and loss• Health and diet
Wk 5	02	Human body systems: the circulatory system	<ul style="list-style-type: none">• Structure of the circulatory system• The heart
Wk 6			<ul style="list-style-type: none">• Arteries, veins and capillaries• Components of blood
Wk 7			<ul style="list-style-type: none">• Pulse rate• Effect of exercise on pulse rate
Wk 8			<ul style="list-style-type: none">• Health and the circulatory system
Wk 9	03	Human body systems: The respiratory system	<ul style="list-style-type: none">• Structure of the respiratory system• Gas exchange in the lungs
Wk 10			<ul style="list-style-type: none">• How you breathe• Respiration in cells

Wk 11			<ul style="list-style-type: none"> Breathing rate Exercise and breathing rate The effects of smoking
Wk 12			Revision

Term 2

Proposed Date/week	Unit/Section	Topic	Modules
Wk 1	04	Physical and Chemical Processes	<ul style="list-style-type: none"> Physical properties of matter Chemical changes Comparing physical and chemical changes 1 Comparing physical and chemical changes 2
Wk 2			<ul style="list-style-type: none"> Chemical reaction Types of chemical reaction Everyday chemical changes
Wk 3			<ul style="list-style-type: none"> Solutions Dissolving Saturated solutions Supersaturated solutions
Wk 4	05	Separating mixtures	<ul style="list-style-type: none"> Mixtures Separating mixtures Evaporation and distillation
Wk 5			<ul style="list-style-type: none"> Distillation of liquid mixtures Fractional distillation
Wk 6			<ul style="list-style-type: none"> Chromatography Separating liquids Other methods of separating mixtures
Wk 7	06	Motion	<ul style="list-style-type: none"> Speed Calculating speed Distance -time graphs Displacement and velocity
Wk8			<ul style="list-style-type: none"> Acceleration Inertia and momentum Newton's First law of motion

Wk 9			<ul style="list-style-type: none"> • Newton's second law of motion • Newton's third law of motion • Turning effect and moments
Wk 10			<ul style="list-style-type: none"> • Levers • Centre of gravity • Stability and Equilibrium •
Wk 11			Revision

Term 3

Proposed Date/week	Unit/Section	Topic	Modules
Wk 1	07	Thermal Energy	<ul style="list-style-type: none"> • Heat and temperature • Thermometers
Wk 2			<ul style="list-style-type: none"> • Cooling graphs • Heat transfer-conduction
Wk 3			<ul style="list-style-type: none"> • Metals as conductors of heat • Heat transfer-convection • Convection in gases
Wk 4			<ul style="list-style-type: none"> • Heat transfer-radiation • Radiation and absorption of different surfaces
Wk 5			<ul style="list-style-type: none"> • Thermal insulators and conductors • Air as a heat insulator • Total heat transfer
Wk 6			<ul style="list-style-type: none"> • What is an ecosystem? • Creating an ecosystem
Wk 7	08	Energy in ecosystems	<ul style="list-style-type: none"> • Photosynthesis • Producers, consumers and decomposers
Wk 8			<ul style="list-style-type: none"> • Food chains • Food webs
Wk 9			Revision