

St. Mary's College

Integrated Science

Form 2

Term 1

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

		<ul style="list-style-type: none"> • The effects of smoking
		Revision Christmas Examinations

Term 2

Unit/Section	Topic	Modules
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
		<ul style="list-style-type: none"> • Chemical reaction • Types of chemical reaction • Everyday chemical changes
		<ul style="list-style-type: none"> • Solutions • Dissolving • Saturated solutions • Supersaturated solutions
05	Separating mixtures	<ul style="list-style-type: none"> • Mixtures • Separating mixtures • Evaporation and distillation •
		<ul style="list-style-type: none"> • Distillation of liquid mixtures • Fractional distillation
		<ul style="list-style-type: none"> • Chromatography • Separating liquids • Other methods of separating mixtures
06	Motion	<ul style="list-style-type: none"> • Speed • Calculating speed • Distance -time graphs • Displacement and velocity
		<ul style="list-style-type: none"> • Acceleration • Inertia and momentum • Newton's First law of motion
		<ul style="list-style-type: none"> • Newton's second law of motion • Newton's third law of motion • Turning effect and moments
		<ul style="list-style-type: none"> • Levers

		<ul style="list-style-type: none"> • Centre of gravity • Stability and Equilibrium
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Term 3

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