

Year 9 Sciences Overview

Unit	Key Concept	Related Concept	Global Contexts & Explorations	Statement of Inquiry	Skills	Areas of learning
Light and Sound	Systems	Models, energy	Orientation in Space and Time. Scale, duration, frequency and variability	The wave model allows us to understand the phenomena of light and sound. We can gain an understanding of the world by receiving information from light and sound as processed by the human body.	Critical Thinking	<ul style="list-style-type: none"> - Waves - Reflection & refraction - Lenses - Colour - Eye parts
Acids, Bases & Salts	Relationships	Interactions, models	Scientific and technical innovation -Systems, models, methods; products, processes and solutions	Models are helpful for understanding relationships and predicting interactions.	Information literacy	<ul style="list-style-type: none"> - Atoms, elements and compounds - Periodic table - Acids & bases - Neutralisation
Diseases	Relationships	Consequences, environments	Identities and Relationships Physical, psychological and social development; transitions; health and well-being; lifestyle choices	The relationships between organisms and their environments have consequences.	Thinking	<ul style="list-style-type: none"> - Infection & non-infectious disease - Pathogens - Immune system
Conservation of energy	Systems	Balance, Energy, Transformation	Orientation in space and time	By tracing energy transformations through time, one can predict the behaviour of closed, isolated systems.	Data analysis, critical thinking	<ul style="list-style-type: none"> - Types of energy - Energy transformations - Power - Efficiency
Food for Thought	Systems	Consequences, Environment	Globalization and Sustainability	The growing human population's demand for diverse and affordable food is damaging ecosystems.	Data analysis, critical thinking	<ul style="list-style-type: none"> - Consequences of intensive farm of agriculture, aquaculture and livestock - Eutrophication - Climate change - Greenhouse effect