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| **opportunity for growth** | **performance meets standard of learning (Grade 8)** | **advanced** |
|  | Big Ideas and Content at a glance* Life processes are performed at cellular level
* The behaviour of matter: KMT and atomic theory
* Energy transferred as both a particle and a wave
* Theory of plate tectonics: geological processes
* characteristics of life
* cell theory and types of cells
* photosynthesis and cellular respiration
* relationship of micro-organisms with living things:
	+ basic functions of immune system
	+ vaccination and antibiotics
	+ impacts of epidemics and pandemics on humans
* kinetic molecular theory (KMT)
* atomic theory and models
* protons, neutrons, and quarks
* electrons and leptons
* types/effects of electromagnetic radiation
* light: properties, behaviours, ways of sensing
* plate tectonic movement
* major geological events of local significance
* First Peoples - local geological formations & events
* layers of Earth
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| Learning: Takes Time and Patience, Experiential, Embedded in Story, . . . |
|  | Questioning and predicting* Demonstrate a sustained intellectual curiosity
* Make observations
* Identify a question to answer or a problem to solve through scientific inquiry
* Formulate alternative “If…then…” hypotheses
* Make predictions about findings of their inquiry
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|  | Planning and conducting* Collaboratively plan range of investigation types
* Measure and control variables through fair tests
* Observe/measure/record qualitative/quant. data
* Appropriate SI units and simple unit conversions
* Follow safety and ethical guidelines
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|  | Processing and analyzing data and information* Experience and interpret the local environment
* Apply First Peoples perspectives & knowledge, other ways of knowing, and local knowledge
* Represent relationships in data various ways
* Seek patterns and connections in data
* Identify relationships and draw conclusions
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|  | Evaluating* Reflect on methods (incl. controls & data quality)
* Identify sources of error: suggest improvements
* Awareness of assumptions and bias
* Understanding and appreciation of evidence
* Evaluate claims in secondary sources
* Consider social/ethical/environ. implications
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|  | Applying and innovating* Contribute to care for self, others, community
* Co-operatively design projects
* Transfer and apply learning to new situations
* Generate and introduce new or refined ideas
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|  | Communicating* Communicate ideas, findings, and solutions
* Express & reflect on experiences & perspectives
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