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| **SCIENCE 1** (Planning KDU)  |
| **CORE COMPETENCIES** **COMMUNICATION**  | **CORE COMPETENCIES** **THINKING (CRITICAL/CREATIVE)** | **CORE COMPETENCIES****(PERSONAL/SOCIAL)** |
| **CURRICULAR COMPETENCIES** | **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
| **Questioning and predicting** *(\*Form and function: Form and function refer to something being designed, structured or shaped in a way that will help it perform a certain function or functions. For example, the fins of fish help them propel themselves through the water. The human skeleton provides protection for organs, and support for muscles, and allows people to stand upright. Science recognizes this important relationship between form and function. Key questions about form and function: What structural features of plants and animals in your local environment help those plants and animals to function well? How do the properties of natural materials (e.g., wood) help determine useful functions for the materials?)** Demonstrate curiosity and a sense of wonder about the world
* Observe objects and events in familiar contexts
* Ask questions about familiar objects and events
* Make simple predictions about familiar objects and events

**Planning & conducting*** Make and record observations
* Safely manipulate materials to test ideas and predictions
* Make and record simple measurements using informal or non-standard methods

**Processing and analyzing data and information*** Experience and interpret the local environment
* Recognize First Peoples stories (including oral and written narratives), songs, and art as ways to share knowledge
* Sort and classify data and information using drawings or provided tables
* Compare observations with predictions through discussion
* Identify simple patterns and connections

**Evaluating*** Compare observations with those of others
* Consider some environmental consequences of their actions

**Applying and innovating*** Take part in caring for self, family, classroom and school through personal approaches
* Transfer and apply learning to new situations
* Generate and introduce new or refined ideas when problem solving

**Communicating*** Communicate observations and ideas using oral or written language, drawing, or role-place
* Express and reflect on personal experiences of place *(Place is any environment, locality, or context with which people interact to learn, create memory, reflect on history, connect with culture, and establish identity. The connection between people and place is foundational to First Peoples perspectives of the world. Key questions about place: What is place? What are some ways in which people experience place? How can you gain a sense of place in your local environment? How can you share your observations and ideas about living things in your local environment to help someone else learn about place?)*
 | Living things have features and behaviours that help them survive in their environment | *Questions to support inquiry with students:* * How do local plants and animals depend on their environment?
* How do plants and animals use their features to respond to stimuli in their environments?
* How do plants and animals adapt when their basic needs are not being met?

*Key question about form/function:* * What structural features of plants and animals in your local environment help those plants and animals to function well?
 | **Core Focus: Biology*** classification *(Is it living or non-living? Is it a plant, animal or something else?; differences between conventional scientific and indigenous ways of classifying)* of living or non-living things
* names *(e.g., common, indigenous and scientific*) of local plants and animals
* structural features *(How do stems, roots, leaves, skeleton or no skeleton or exoskeleton, lots of legs, few legs, eyes, etc. help us understand organisms?)* of living things in the local environment
* behavioural adaptations (*dormancy, hibernation, nesting, migration, catching food, camouflage (stick bugs), mimicry (fly that looks like bee), territorialism (squirrels fighting), etc.)* of animals in the local environment
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| **Evidence of Experience (Show)** |
| **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
| Matter is useful because of its properties | *Questions to support inquiry with students:* * What makes the properties of matter useful?
* How do the properties of materials help connect to the function of materials?

*Key question about form/function:* * How do the properties of natural materials (e.g., wood) help determine useful functions for the materials?

Other Key Questions: * How can we organize materials and events to help us make sense of what we observe?
* How can we communicate the results of our experiments to others?
 | **Core Focus: Chemistry*** specific properties (*solids keep shape; liquids and gases flow; properties of local materials determine use by Aboriginal people (local examples: cedar for canoes, mountain goat horns used as spoons))* of materials connected to the function of the materials
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| **Evidence of Experience (Show)** |
| **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
| Light and sound can be produced and their properties can be changed.  | *Questions to support inquiry with students:* * How can you explore the properties of light and sound?
* What discoveries did you make?
 | **Core Focus: Physics*** natural and artificial sources of light *(natural sources include the sun; artificial sources include light bulbs)* and sound (*natural sources include crickets; artificial sources include car horns)*
* properties of light *(eg. brightness, colour; objects are made visible by radiating their own light or being illuminated by reflected light; interactions of light with different objects create images and shadows; light interactions can make plants grow, make shadows, or cause sunburn, depending on the source and location (seasons depend on light from the sun and how spread out the sun’s rays are); plants grow toward light)* and sound *(examples: pitch, tone, volume; ways of making, recording, and transmitting sound)* that depend on their source and the objects with which they interact
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| **Evidence of Experience (Show)** |
| **BIG IDEA (Understand…)** | **What do we want students to DO?****(Activities, lessons…)**  | **Content (& Elaborations)****(Know)** |
| Observable patterns and cycles occur in the local sky and landscape | *Questions to support inquiry with students:* * What kinds of patterns in the sky and landscape are you aware of?
* How do patterns and cycles in the sky and landscape affect living things?
 | **Core Focus: Earth & Space** * common objects in the sky *(the appearance of the moon and stars at night; sunrise/set, moonrise/set; the sun and the moon are important in different cultures, with respect to customs and traditions)*
* the knowledge of First Peoples
	+ shared First Peoples knowledge of sky
	+ local First Peoples *( e.g., may include oral history with Elder—origins and local stories)*  knowledge of local landscape, plants, animals
	+ local First Peoples understanding & use of seasonal rounds *(refers to a pattern of movement from one resource-gathering area to another in a cycle that is followed each year)*
* local patterns *(relationship of local weather to the four seasons in terms of temperature, cloud cover, precipitation, and wind)* that occur on Earth and sky
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| **Evidence of Experience (Show)** |