

**Learning Map**

Goals

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Course: Science 9** | | | | | | **Teacher: YT SAMPLE** | |
| **Unit Big Idea** The biosphere, geosphere and atmosphere are interconnected as matter cycles and energy flows through them | | | | | | | |
| **Unit Guiding/Essential Question(s):**  Why do we need the sun? | | | | | | | |
|  | | | **1**  **Not Yet Meeting** | **2**  **Approaching** | **3**  **Meeting** | | **4**  **Exceeding** |
| **Content Target:**  Effects of solar radiation on the cycling of matter and energy | | | I know that the sun gives light. I know why the Earth needs light from the sun. | I know solar radiation. I know the different types of light radiation. | I know the effects of solar energy on the cycling of matter and energy on the Earth. I know the connection of solar radiation to the water cycle. | | I know how solar radiation is connected to wind and ocean currents, and the distribution of energy and nutrients around the planet. |
| **Curricular Competencies Targets:** | **Questioning and Predicting** | Sustained intellectual curiosity | I wonder about a scientific topic. | I ask questions about a scientific topic | I ask questions to further my inquiry about a scientific topic | | I sustain an inquiry about a scientific topic of my own interest over time. |
| Make observations | I use my senses to observe and describe. | I make observations to identify questions about a topic | I observe to find patterns to help explain or support a hypothesis. | | I observe ethically and make connections to phenomena in the natural world connected to my inquiry. |
| Formulate  multiple hypotheses | I come up with possible explanations to my wonderings. | I make an informed hypothesis about a scientific question. | I come up with multiple informed hypothesis about a scientific topic. | | I formulate new hypothesis based on new information in a scientific inquiry. I predict multiple outcomes to my own inquiry. |