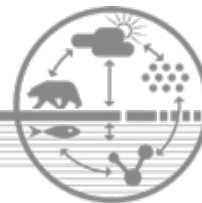


Final Summary Table Example:

Lesson	What did we learn?	How does it relate to the unit driving question?
Lesson 2: Earth's Energy Budget	- Solar energy is released as photons (packets of energy). - Wavelength determines the properties of energy. - Shortwave energy can be reflected or absorbed by the earth (heat). - Heat in the form of longwave energy is emitted from Earth back into the atmosphere.	- When Earth's energy budget is balanced, the amount of energy coming in is equal to the amount of energy going out. - Earth is warming, which means that the energy budget is imbalanced.
Lesson 3: Greenhouse Effect	- Longwave and shortwave energy interact with molecules differently. - Shortwave energy passes through greenhouse gases (e.g., CO₂, H₂O, CH₄). - Greenhouse gases absorb and reemit longwave energy (preventing some energy from passing through Earth's atmosphere).	- An increase in atmospheric greenhouse gases (e.g., CO₂, H₂O, CH₄) is causing more outgoing longwave energy to be absorbed and reemitted in Earth's atmosphere, resulting in an increase in global temperatures. This is called the greenhouse effect.
Lesson 4: Arctic Fieldwork	- Over the 20 years, the amount of incoming shortwave energy to the Arctic has not changed while the amount of outgoing longwave energy from the Arctic has increased.	- An increase in outgoing longwave radiation (heat) from the Arctic seems to be related to an increase in Arctic temperatures.
Lesson 5: Model Revisions	N/A	N/A



Lesson 6: Measuring Albedo	- Albedo = Reflectance - Lighter colored surfaces have a higher albedo than darker colored surfaces. - Energy that is not reflected is absorbed causing the temperature of that surface to increase.	- As sea ice declines and more ocean is exposed, the albedo of the Arctic decreases and the ocean absorbs more energy (heat).
Lesson 7: Ice-Albedo Feedback	- A feedback loop is a cycle that increases or decreases the effect on a system. - As sea ice melts, the albedo for the Arctic decreases. A decrease in albedo means more energy is being absorbed, leading to an increase in ocean and air temperatures. The increase in temperatures causes more sea ice to melt, and the cycle continues.	- The Arctic is warming in response to an enhanced greenhouse effect. But that warming is amplified by the ice-albedo feedback.