

- By the end of this unit, students will be able to..
- Define and provide examples of the following: atom, element, and molecule
- State which element is most common in living organisms and why.
- Define and summarize the processes that comprise the carbon cycle.
- Summarize how a plant makes glucose and from what.
- Define and provide examples of carbohydrates.
- Identify which is the simplest carbohydrate and how other carbohydrates are made.
- Summarize what occurs in each of the following: photosynthesis, respiration, and decomposition.
- Identify what processes add carbon dioxide to the air and what processes remove carbon dioxide from the air.
- Identify what processes change inorganic carbon molecules into organic carbon molecules.
- Identify what processes change organic carbon molecules into inorganic carbon molecules.
- Summarize where the weight and mass of a log goes as it is burned.
- Summarize from where a plant acquires its mass/carbon molecules.
- Compare and contrast producers, consumers, and decomposers.
- Provide examples of organic and inorganic carbon molecules.
- Identify the sources of excess carbon dioxide in the atmosphere and summarize the impact that this has on the atmosphere and on biological processes in ecosystems and agriculture.
- Summarize how we know that the current changes to the atmosphere are not part of a natural cycle.
- Propose strategies for how the levels of CO<sub>2</sub> could be reduced.
- Summarize the importance of the carbon cycle to agriculture.