

Assessment Plan Summary

Entry -Level Assessment

Initial Carbon Cycle Model -In the Handout, students write down answers to questions such as "What, is carbon?" and then discuss their answers with a pair share. Students summarize their prior knowledge with a model of the carbon cycle which will be turned in. This will be an informal assessment prior knowledge of the concept.

Progress Monitoring Assessment 1- Carbon Cycle Revised Model

Revised Carbon Cycle Model - Students use the concepts gained from the lecture and guided notes on the carbon cycle in order to create a new refined individual model of the carbon cycle. Students will peer review the model and then have the opportunity to edit before turning it in for a number grade. This is a formative assessment to check students comprehension of the content before moving on to the next lesson.

Progress Monitoring Assessment 2- Chemical Reactions Presentation

In groups, students will make a Google slides presentation made up of at least 9 slides, 1 title slide and 2 slides per student. The slides should contain, the reaction type, where it falls within the carbon cycle, a balanced chemical reaction with reactants and products identified. In this formal formative assessment students will be given a number grade that is based off the rubric provided in the WebQuest.

Progress Monitoring Assessment 3- Thermodynamics Popplet Concept Map

Students create a graphic organizer on Popplet based on the teacher's instructions and the rubric provided in order to demonstrate their knowledge of Enthalpy and how it demonstrates changes in bond energy. This formal formative assessment will be given a number grade based on the rubric provided.

Progress Monitoring Assessment 4- Final Carbon Cycle Model

The final formative assessment is a full carbon cycle with the details of chemical reaction formulas and the bond energy change in those chemical reactions is provided this will be used to assess students understanding of all the work done up to this point and ensure they are on target to reaching learning goals. If they are not on target review can be done before the summative assessments.

Summative Assessment 1 - Group Presentation

This is a formal summative performance task. As a group of 3 students will create a presentation supporting an argument of whether a new engine should use gasoline. To make your decision students must take into consideration how the combustion of energy impacts the environment (Carbon Cycle), the efficiency of the gasoline combustion reaction (Chemical Reactions), and how it produces energy (Thermodynamics). Students will be graded on a rubric about strength of argument and use of content from the unit to create their argument.

Summative Assessment 1 - Unit Quiz

Students will demonstrate their individual content knowledge from the unit by answering a mixture of multiple choice and short answer constructed response questions. In this formal summative assessment. Students will be given a number grade out of 100% based on their demonstration of competency of the learning goals.

