Teacher(s): Ms. Swoch

Period:

The Course Organizer

Student:

Course Dates: 2020-2021

This Course: Physical Science Honors

is about

the study of matter and it's motion through space and time using scientific experimentation to understand how the universe behaves.

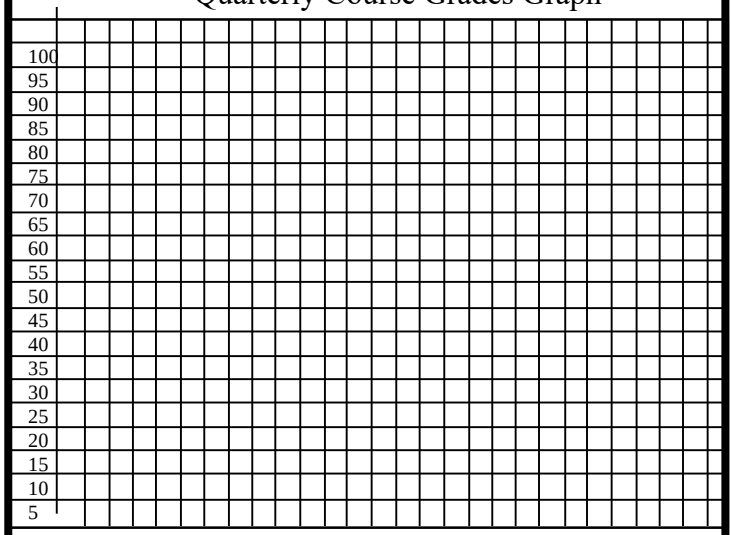
Course Questions:

1. How did scientists use the work of earlier scientists and the contributions of their peers to develop the atomic theory?
2. How can general properties influence element location on a periodic table?
3. Describe the relationship between volume, pressure, number of moles, and temperature for an ideal gas, as described by the ideal gas law.
4. How can chemical equations help you predict the products of each of the five types of chemical reactions?
5. Explain why acetic acid, HC2H3O2 , is defined as an acid and describe both conceptually and using a chemical equation what happens when HC2H3O2 , a weak acid, reacts with sodium hydroxide, NaOH, a strong base.
6. Demonstrate the law of conservation of energy through the carbon cycle?
7. How can physicists use Newton's laws of motion and universal gravitation to predict objects' motion?
8. The gravitational potential energy of the wrecking ball on a demolition machine is measured by its mass and height. A particular ball has a mass of 200.0 kg. What is the gravitational potential energy of the ball relative to the ground when the crane has raised the ball 35 meters? (The acceleration due to gravity on Earth is 9.8 m/s2.)
9. Consider an electromagnetic wave, a ripple on the surface of water, and a sound wave. How does each propagate, and in what media can each travel?
10. How can you determine the relationship between power and resistance in a circuit?

Course Standards:

What?	How?	Value?
Content:		
Standards		
Tests		50%
Performance		
Interactive Notebook		50%

Quarterly Course Grades Graph



0 Test Grades

X INB Grade

A=100-90
B=89-80
C=79-70
D=69-60
Less than 60 redo

Course Map

This Course: Physical Science Honors

Student:

includes

Community Principles

- Respect
- Positivity
- Support
- Teamwork
- Choice
- Voice

Learning Rituals

Focused Notes, Graphic Organizers, Interactive Notebook, Socratic Seminar, Kahoot, Reflections, Bellwork

Performance Options

Choice Boards
Class Test Review
Computer Practice
Written or Typed Products

Critical Concepts

Molecule, Physical Property, Chemical Property, Mixture, Bond, Reaction, Energy, Cycle, Force, Power

Learned in these Units

- Matter
- Chemical Structure
- Acids & Bases
- Heat & Temperature
- Forces
- Motion
- Law of Conservation of Energy
- Waves
- Cycling of Matter
- Electricity & Nuclear Power

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