



Whiteriver Unified School District Essential Standards

Quarterly Focus

What is it we expect students to learn?

Grade: 11th & 12th

Subject: Physical Science

First Quarter

Chemistry – P1 : All Matter in the Universe is made of very small particles

***Structures and Properties of Matter:**

HS.P1U1.1

Develop and use models to explain the relationship of the structure of atoms to patterns and properties observed within the Periodic Table and describe how these models are revised with new evidence.

Second Quarter

Chemistry – P1 : All Matter in the Universe is made of very small particles

***Chemical Reactions:**

HS.P1U1.2

Develop and use models for the transfer or sharing of electrons to predict the formation of ions, molecules, and compounds in both natural and synthetic processes.

HS.P1U1.3

Ask questions, plan, and carry out investigations to explore the cause and effect relationship between reaction rate factors.

Third Quarter

Physics – P3 : Charging the movement of an object requires a net force to be acting on it.

***Motion & Stability – Forces & Interactions**

HS.P2U1.5

Construct an explanation for a field's strength and influence on an object (electric, gravitational, magnetic).

HS.P3U1.6

Collect, analyze, and interpret data regarding the change in motion of an object or system in one dimension, to construct an explanation using Newton's Laws.

Fourth Quarter

Physics – P4: The total amount of energy in a closed system is always the same but can be transferred from one energy store to another during an event.

***Energy & Waves**

HS.P4U1.8

Engage in argument from evidence that the net change of energy in a system is always equal to the total energy exchanged between the system and the surroundings.

HS.P4U1.10

Construct an explanation about the relationships among the frequency, wavelength, and speed of waves traveling in various media, and their applications to modern technology

- *Endurance- Knowledge and skills of value beyond a single date*
- *Leverage- Knowledge and skills valuable in multiple disciplines*
- *Readiness for the next level of learning- Knowledge and skills that are necessary for success in the next grade level or the next level of instruction*