Stage 1 Desired Results

ESTABLISHED GOALS (CCSS)

RST.11-12.1-3

RST.11-12.4-6

RST.11-12.7-9

WHST.11-12.2a-e

RL.11-12.1,2,3,4,7

Transfer

Students will be able to independently use their learning to…

Complete mole calculations.

Determine number of protons, electrons, and neutrons in an isotope

Meaning

UNDERSTANDINGS	ESSENTIAL QUESTIONS:
Students will understand that…	**What is inside atoms?**
The modern model of the atom evolved over time	**What is a mole?**
Isotopes are made of different numbers of protons, electrons, and neutrons	**How is the periodic chart used to determine atomic particles in an isotope?**
Moles can tell you numbers of grams, atoms, or molecules	

Acquisition

Students will know…	***Students will be skilled at…***
Atomic Structure	**Converting moles to grams, atoms, and molecules**
Moles	**Determining numbers of atomic particles**

Stage 2 - Evidence

Evaluative Criteria	Assessment Evidence
PERFORMANCE TASKS	**CURRICULUM EMBEDED PERFOMANCE ASSESSMENT (PERFORMANCE TASKS):** **End of Unit exam that allows students to determine numbers of atomic particles, mole calculations, etc.** **Lab reports that involve construction of graphs, data charts, and data analysis.**
	OTHER EVIDENCE: **Daily assignments.** **Two lab write ups** **Exam Review** **Exam**

CLAIMS LAM	**CLAIM 1** **CLAIM 2** **CLAIM 3** **CLAIM 4** **CLAIM 1** **CLAIM 2** **CLAIM 3** **CLAIM 4**
DEPTH OF KNOWLEDGE LEVELS	**DOK 1** **DOK2** **DOK 3** **DOK4**
ACHIEVEMENT LEVEL DESCRIPTORS	**ALD 1** **ALD 2** **ALD 3** **ALD 4**
Stage 3 – Learning Plan	
Summary of Key Learning Events and Instruction	- Take notes on atoms and moles o History of the current model of the atom o Using the periodic chart to identify number of protons, electrons, and neutrons in an isotope o Calculating grams, moles, and atoms - Complete labs o Calculating the average atomic mass o Qualitative analysis of vitamin C in juice drinks - Complete homework o Atomic structure (protons, electrons, neutrons) o Mole calculations - White board practice to show understanding - Review and final practice - Exam on atoms