Unit 1: Think Like a Scientist

Key Concept: Systems
Related Concept: Form, Function
Global Context: Scientific and Technical Innovation

NGSS:

- Crosscutting Concept: Patterns
- MS-ETS1: Engineering and Design

Statement of Inquiry: The Scientific Method allows us to investigate the form and function of patterns observed in natural systems.

Inquiry questions:
Factual: What are the steps of the Scientific Method?
Conceptual: How can we use the Scientific Methods to design experiments?
Debatable: Can the Scientific Method of inquiry be used to solve any problem?

Main Content:

- The scientific method
- Write a testable question and hypothesis
- Manipulated, responding, and controlled variables
- Observation vs Inference
- Writing Conclusions
- Lab Safety

Summative Assessment:
Criteria A (knowing and understanding)

i. Outline scientific knowledge

ii. Apply scientific knowledge and understanding to solve problems set in familiar situations and suggest solutions to problems set in unfamiliar situations

iii. Interpret information to make scientifically supported judgements

Criteria B (inquiring and designing)

i. Outline an appropriate problem or research question to be tested by a scientific investigation.

ii. Outline a testable prediction using scientific reasoning

iii. Outline how to manipulate the variables, and outline how data will be collected

iv. Design scientific investigations

ATLs *(goal is how to be a successful student in science class)*
Category: Communication **Cluster:** Communication **Skill Indicator:** reading, writing, and using language to gather and communicate information
Category: Self-management **Cluster:** Reflection **Skill Indicator:** considering the process of learning
Category: Self-management **Cluster:** Organization **Skill Indicator:** managing time and tasks effectively