

Science

Content Area: **Science**
Course(s): **Science 3**
Time Period: **Undefined**
Length:
Status: **Published**

Unit Overview

Essential Questions

What is science?

What questions do scientists ask?

What skills do scientists use?

How do scientists answer questions?

How do scientists communicate?

How do scientists use tools and stay safe?

Content

Scientists ask questions they can investigate.

Scientists estimate, measure, infer, predict, and interpret and explain data.

Scientists answer questions by investigating.

Scientists communicate by: planning experiments, keeping records, and sharing and repeating investigations.

Scientists use tools to measure and observe. Other tools keep scientists safe during investigations.

Skills

Explain hat types of questions scientists ask.

Observe, predict, measure and use other process skills.

Explain how scientists use experiments and other investigations to answer questions.

Describe a procedure, record data, and understand how scientists communicate.

Explain how scientists use tools and stay safe.

Assessments

Raise questions about scientific investigations, use tools to make observations, keep records of investigations and communicate the results with others, make inferences based on observations, and make and interpret models to aid in investigations

Study Guide

Chapter Review

Chapter Test

Benchmark Practice

Performance-Based Assessment, Program Guide pg 46: Master Investigator, Make a Model, and/or Make a Poster

STEM Activity Book

Lessons/Learning Scenarios

Chapter 1: Lesson 1, Lesson 2, Lesson 3, Lesson 4, Lesson 5

Inquiry: How does a microscope help you make observations?

Vocabulary

Study Guide

Chapter Review

Benchmark Practice

Standards

SCI.3-4.5.1.4.A	Students understand core concepts and principles of science and use measurement and observation tools to assist in categorizing, representing, and interpreting the natural and designed world.
SCI.3-4.5.1.4.A.1	Demonstrate understanding of the interrelationships among fundamental concepts in the physical, life, and Earth systems sciences.
SCI.3-4.5.1.4.A.2	Use outcomes of investigations to build and refine questions, models, and explanations.

SCI.3-4.5.1.4.A.3	Use scientific facts, measurements, observations, and patterns in nature to build and critique scientific arguments.
SCI.3-4.5.1.4.B	Students master the conceptual, mathematical, physical, and computational tools that need to be applied when constructing and evaluating claims.
SCI.3-4.5.1.4.B.1	Design and follow simple plans using systematic observations to explore questions and predictions.
SCI.3-4.5.1.4.B.2	Measure, gather, evaluate, and share evidence using tools and technologies.
SCI.3-4.5.1.4.B.3	Formulate explanations from evidence.
SCI.3-4.5.1.4.B.4	Communicate and justify explanations with reasonable and logical arguments.
SCI.3-4.5.1.4.C	Scientific knowledge builds on itself over time.
SCI.3-4.5.1.4.C.1	Monitor and reflect on one's own knowledge regarding how ideas change over time.
SCI.3-4.5.1.4.C.2	Revise predictions or explanations on the basis of learning new information.
SCI.3-4.5.1.4.C.3	Present evidence to interpret and/or predict cause-and-effect outcomes of investigations.
SCI.3-4.5.1.4.D	The growth of scientific knowledge involves critique and communication, which are social practices that are governed by a core set of values and norms.
SCI.3-4.5.1.4.D.1	Actively participate in discussions about student data, questions, and understandings.
SCI.3-4.5.1.4.D.2	Work collaboratively to pose, refine, and evaluate questions, investigations, models, and theories.
SCI.3-4.5.1.4.D.3	Demonstrate how to safely use tools, instruments, and supplies.
SCI.3-4.5.1.4.D.4	Handle and treat organisms humanely, responsibly, and ethically.

Resources
