



Program: Elementary Life Science

Target Level: Grades 2–3

Focus: Botany & Scientific Observation

SECTION 1 Curriculum Rationale & Educational Philosophy

This curriculum builds foundational biological literacy using experiential, inquiry-based learning. Early learners shift from intuitive observations to systematic scientific thinking by examining living organisms, recording developmental cycles, and developing respect for ecosystems.

SECTION 2 Core Competency Standards

Standard 1: Plant Anatomy & Physiology

Identify primary structures (roots, stem, leaves, flower, seeds) and explain how each part sustains life and supports development.

Standard 2: Survival & Habitat Requirements

Demonstrate how environmental factors (sunlight, moisture, air, soil nutrients, physical space) affect healthy vegetative growth.

Standard 3: Life Cycle Progression

Chronologically sequence and describe stages of flowering plants: dormant seed, sprout/seedling, mature plant, flower, and seed dispersal.

Standard 4: Scientific Inquiry & Measurement

Apply foundational tools (rulers, magnifying lenses) to chart empirical changes over time in structured observation logs.

SECTION 3 Scope & Sequence Units

Unit 1: Structure

Distinguish living vs. non-living; explore foundational functions of roots, stems, and leaves.

Unit 2: Needs

Investigate sunlight, air, water, and rich soil using simple control group observations.

Unit 3: Cycles

Dissect seeds, germinate bean sprouts, and record progressive growth milestones.

Unit 4: Ecology

Connect botanical life to community food sources, habitats, and environmental care.

SECTION 4 Assessment & Mastery Evaluation

Formative Checks (Continuous)

Daily sketch journals, verbal comprehension checks, structured partner observations, and guided laboratory worksheets.

Summative Benchmarks (Cumulative)

Culminating "Grow a Bean" observation portfolio and a diagrammatic life cycle sequencing assessment.