NGSS CORRELATION

GUIDING QUESTION

What kinds of organisms live nearby and how many of them are there?

GRADES 3–5 DISCOVER DIVERSITY

PRACTICES

ANALYZING AND INTERPRETING DATA

Students record and analyze the kinds and amounts of organisms found in different plots of a local habitat.

OBTAINING, EVALUATING, AND COMMUNICATING INFORMATION

Students communicate through a presentation the information they observe and collect in their study plot.

CONCEPTS

BIODIVERSITY AND HUMANS

Students observe and compare populations of organisms living in various locations within a habitat.

PATTERNS

Students compare the different study plots, looking for patterns, which can help them understand what features are the same, which are different, and why.

CAUSE AND EFFECT

Students observe abiotic factors that can affect the populations of organisms living in different locations of a habitat, including variables such as shade and sunlight.

SCIENCE AND ENGINEERING PRACTICES

Analyzing and Interpreting Data

Analyze and interpret data to make sense of phenomena using logical reasoning.

Obtaining, Evaluating, and Communicating Information

Communicate scientific and/or technical information orally and/or in written formats, including various forms of media.

DISCIPLINARY CORE IDEAS

LS4.D: Biodiversity and Humans

Populations live in a variety of habitats, and change in those habitats affects the organisms living there.

PERFORMANCE EXPECTATION

3-LS4-4. Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals there may change.

Note: Keep in mind that no single activity can fully meet a Performance Expectation.

CROSSCUTTING CONCEPTS

Patterns

Patterns can be used as evidence to support an explanation.

Cause and Effect

Cause and effect relationships are routinely identified and used to explain change.

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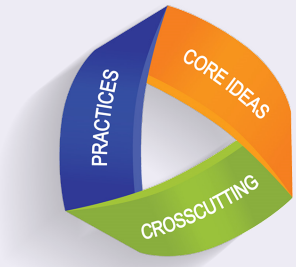

NGSS CORRELATION

GUIDING QUESTION: GROUNDED IN PHENOMENA

Phenomenon-based instruction is directly connected to students' homes, communities, and cultures, thus making teaching and learning more diverse, inclusive, and relevant. PLT identifies Guiding Questions that drive phenomenon-based, three-dimensional learning for each of the 50 Explore Your Environment K-8 Activity Guide activities.

CONNECTING PLT'S EXPLORE YOUR ENVIRONMENT K–8 ACTIVITY GUIDE TO NGSS

IN THE ACTIVITY

The left hand column details where science connections can be found in the PLT activity.

PRACTICES

ENGAGING IN THE PRACTICES OF SCIENCE helps students understand how scientific knowledge develops. Students gain skill in the wide range of approaches that are used to investigate, model, and explain the world.

CONCEPTS

THESE CORE IDEAS HAVE BROAD IMPORTANCE across science disciplines, providing tools for understanding or investigating complex ideas and solving problems, and can be taught at progressive levels of depth and complexity.

Project Learning Tree is committed to supporting educators in providing instruction that helps students meet science education standards.

The Next Generation Science Standards (NGSS) define what students should know or be able to do at the end of instruction. To demonstrate learning, NGSS identifies Performance Expectations (PEs) that may be used to assess a student's knowledge and proficiency. To meet benchmarks, students engage in the three dimensions of science— Science & Engineering Practices, Disciplinary Core Ideas, and Crosscutting Concepts—to explain a phenomenon or design a solution.

Activities in the *Explore Your Environment K-8 Activity Guide* provide students opportunities to explore the three dimensions of science to build knowledge and understanding. In addition, activities offer phenomenon-based learning, which involves exploring the real world through learner-centered, multidisciplinary investigations that promote inquiry and problem solving.

The NGSS Correlation pages for each activity include a guiding question, science connections found in the activity, and explicit NGSS correlations. Activities are organized around the three dimensions of science, making it useful for educators even if their state has not adopted NGSS.

FROM NGSS

The right hand column identifies correlations to specific NGSS standards, including references to the relevant PE for focus on the grade level band.

SCIENCE AND ENGINEERING PRACTICES

The practices are what students do to make sense of phenomena and reflect how scientists and engineers investigate the world and design solutions.

DISCIPLINARY CORE IDEAS

These foundational ideas of science are grouped into four domains: physical sciences; life sciences; Earth and space sciences; and engineering, technology and applications of science.

CROSSCUTTING CONCEPTS

These concepts hold true across the natural and engineered world. Students use them to make connections across disciplines, connect to prior experiences, and engage with material in other dimensions.

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