PLT Correlations: SCIENCE GRADE 2

Revised 8/2009

Grade 2 : Embedded Inquiry

Learning Expectations	PLT Correlations
GLE 0207.Inq.1 Observe the world of familiar objects using the senses and tools.	**4. Sounds Around** (p.26) - In Part A, students listen to and imitate sounds, comparing their loudness. **15. A Few of My Favorite Things** (p.75) - Students identify the materials and energy used to make a favorite object. As **Enrichments**, they trace solid waste in their community, set up a Swap Shop, or use "trash" to create new products. **20. Environmental Exchange Box** (p.92) - By exchanging boxes with classes in other regions, students compare the other regions to their own. **21. Adopt a Tree** (p.97) - In Part A, students compare their "adopted tree" to other trees. **22. Trees as Habitats** (p.102) - Students inventory the plants and animals that live in, on, and around trees and discover how plants and animals depend on trees in many ways. **24. Nature's Recyclers** (p.108) - Students devise an experiment to investigate the eating habits of pill bugs or earthworms. **25. Birds and Worms** (p.111) - Students pretend to be birds in search of colored worms or bugs. As an Enrichment, they compare results for different "backgrounds". **41. How Plants Grow** (p179) - In the Variation, students grow, measure, and compare plants growing with versus without light, water, soil, or space. **43. Have Seeds, Will Travel** (p.185) - Students observe, collect, and classify seeds according to their likely means of dispersal. In the **Enrichment**, they modify dried lima beans to allow various types of dispersal. **46. Schoolyard Safari** (p.197) - Students go on a safari to explore a nearby habitat – the school yard – while looking for signs of animals living there. **47. Are Vacant Lots Vacant?** (p.200) - Students stake out a "plot" and inventory the plant and animal life within the plot. In the **Variation**, students use hand lenses to closely observe plants and tiny animals along a 3-foot piece of string or within the area defined by a coat hanger stretched into a circle. **48. Field, Forest and Stream** (p.203) - Students work in teams to investigate and record observations of both living and non-living components of three different study sites. In the **Variation**, students work in pairs to place "most" and "least" markers within a designated study site to locate extremes of light, moisture, temperature, wind, plant life, and animal life. **51. Make Your Own Paper** (p.224) - As an **Enrichment**, students investigate how different materials affect the characteristics of the paper created.

	54. I'd Like To Visit a Place Where ... (p.236) - By working on a service learning project to improve a local park, students will also learn about the community's system for managing open spaces. **61. The Closer You Look** (p.263) - Students carefully examine tree features and parts. **64. Looking at Leaves** (p.273) - Students explore leaf attributes such as color, shape, size, and bilateral symmetry through careful observation and various "leaf art" activities. **65. Bursting Buds** (p.277) - Students observe tree buds throughout the year. **67. How Big Is Your Tree?** (p.284) - Students use string or "hand-spans" to measure the distance around a tree trunk or join arms to reach around larger trunks. **68. Name That Tree** (p.288) - Students learn more about trees through examining various identifying features. **70. Soil Stories** (p.297) - In Part A, students use a "Soil Shake" test to separate the components of soil by their particle size. In Part B, students use a "Percolation Test" to test how well soils in different outdoor locations drain water. **74. People, Places, Things** (p. 318) - As an **Enrichment**, students map their neighborhood. **77. Trees In Trouble** (p.332) - Students examine trees for signs of damage or poor health and conduct experiments to determine the conditions the effects of crowding, acid, and fertilizer on seedling height and radish diameter. **78. Signs of Fall** (p.299) - In Part A, students observe and record "signs of fall" in a wooded area. In Part B, they use a "paper chromatography" process to separate the pigments in leaves. **95. Did You Notice?** (p.414) - Students study changes in their local environment over short and long periods to identify patterns of change.
GLE 0207.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data. **GLE 0207.Inq.3** Explain the data from an investigation.	**37. Reduce, Reuse, Recycle** (p.159) – Students plan and conduct a service learning project, and in doing so find ways to cut down on the waste they produce and improve how waste is managed in their community.

Grade 2 : Embedded Technology & Engineering

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.T/E.1 Recognize that both natural materials and human-made tools have specific characteristics that determine their uses.	**0207.T/E.1** Explain how simple tools are used to extend the senses, make life easier, and solve everyday problems.	

GLE 0207.T/E.2 Apply engineering design and creative thinking to solve practical problems.	**0207.T/E.2** Invent designs for simple products. **0207.T/E.3** Use tools to measure materials and construct simple products.	

Grade 2 : Standard 1 - Cells

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.1.1 Recognize that plants and animals are made up of smaller parts and use food, water, and air to survive.	**0207.1.1** Design a new living thing and explain how it would acquire food, water, and air.	**27. Every Tree For Itself** (p.117) **41. How Plants Grow** (p. 179) **61. The Closer You Look** (p. 263) **62. To Be a Tree** (p. 265) **63. Tree Factory** (p. 269) **64. Looking at Leaves** (p.273) **68. Name That Tree** (p.288) **76. Tree Cookies** (p.327)

Grade 2 : Standard 2 - Interdependence

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.2.1 Investigate the habitats of different kinds of local plants and animals.	**0207.2.2** Investigate ways that plants and animals depend on each other.	**6. Picture This** (p.34) **8. The Forest of S.T. Shrew** (p.40) **20. Environmental Exchange Box** (p.92) **22. Trees as Habitats** (p.102) **46. Schoolyard Safari** (p.197) **47. Are Vacant Lots Vacant?** (p.200) **48. Field, Forest and Stream** (p.203) **49. Tropical Treehouse** (p.207)

GLE 0207.2.2 Investigate living things found in different places.	**0207.2.1** Draw or use pictures of a local environment to label the plants and animals.	**21. Adopt a Tree** (p.97) **46. Schoolyard Safari** (p.197) **47. Are Vacant Lots Vacant?** (p.200) **67. How Big Is Your Tree?** (p. 284)
GLE 0207.2.3 Identify basic ways that plants and animals depend on each other.	**0207.2.3** Construct a flow chart that demonstrates how plants, animals, and the environment interact to provide basic life requirements.	**25. Birds and Worms** (p.111) **30. Three Cheers for Trees** (p.130) **31. Plant a Tree** (p.132) **55. Planning the Ideal Community** (p.239) **74. People, Places, Things** (p. 318) **77. Trees In Trouble (p. 332)**

Grade 2 : Standard 3 - Flow of Matter and Energy

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.3.1 Recognize that animals eat plants or other animals for food.	**0207.3.1** Describe the habitat of a particular organism based on its food, water, and air requirements. **0207.3.2** Design a model of a habitat for an organism in which all of its needs would be met.	**16. Pass The Plants, Please** (p.77) **24. Nature's Recyclers** (p.108) **39. Energy Sleuths** (p.167)

Grade 2 : Standard 4 - Heredity

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.4.1 Compare the life cycles of various organisms. **GLE 0207.4.2** Realize that parents pass along physical characteristics to their offspring.	**0207.4.1** Compare and contrast the life cycles of different organisms such as a chicken, butterfly, meal worm, frog, or human. **0207.4.2** Sequence a collection of pictures or illustrations into the correct stages of an organism's life cycle**.**	**43. Have Seeds, Will Travel** (p.185) **79. Tree Lifecycle** (p.341) **95. Did You Notice?** (p.414)

	0207.4.3 Look for similarities in pictures of members from the same human family. **0207.4.4** Create a graphic organizer that compares observable traits that offspring share with their parents.	

Grade 2 : Standard 5 - Biodiversity and Change

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.5.1 Investigate the relationship between an animal's characteristics and the features of the environment where it lives. **GLE 0207.5.2** Draw conclusions from fossils about organisms that lived in the past.	**0207.5.1** Compare and contrast the characteristics of organisms from two different environments. **0207.5.2** Infer the characteristics needed by an organism to survive in a particular environment. **0207.5.3** Observe fossils or pictures of fossils and make inferences about the organisms from which they originated. **0207.5.4** Compare pictures of fossils with animals or plants that are living today.	**6. Picture This** (p.34) **8. The Forest of S.T. Shrew** (p.40) **18. Tale of The Sun** (p.86) **20. Environmental Exchange Box** (p.92) **22. Trees as Habitats** (p.102) **48. Field, Forest and Stream** (p.203)

Grade 2: Standard 6 - Omitted

Grade 2 : Standard 7 – The Earth

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.7.1 Compare and record the components of a variety of soil types.	**0207.7.1** Sort, analyze, and compare a variety of soil types.	**70. Soil Stories** (p. 297)

GLE 0207.7.2 Describe rocks according to their origin, size, shape, texture, and color.	**0207.7.2** Observe rocks of different sizes with a hand lens and describe these materials according to their basic features.	
GLE 0207.7.3 Differentiate between renewable and non–renewable resources.	**0207.7.3** Identify and categorize items in the classroom made from renewable or nonrenewable resources. **0207.7.4** Identify simple methods for reusing the earth's resources.	**13. We All Need Trees** (p.65) **14. Renewable Or Not?** (p.69) **15. A Few of My Favorite Things** (p.75) **32. A Forest of Many Uses** (p.135) **36. Pollution Search**(p.153) **37. Reduce, Reuse, Recycle** (p.159) **39. Energy Sleuths** (p.167) **51. Make Your Own Paper** (p.224) **54. I'd Like To Visit a Place Where ...** (p.236) **89. Trees For Many Reasons** (p.387)

Grade 2 : Standard 8 - The Atmosphere

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.8.1 Associate temperature patterns with seasonal changes.	**0207.8.1** Use records and graphs of seasonal temperature changes to draw conclusions about the weather during different times of the year.	**65. Bursting Buds** (p.277) **78. Signs of Fall** (p.299)

Grade 2 : Standard 9 - Matter

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.9.1 Use tools to observe the physical properties of objects. **GLE 0207.9.2** Investigate how temperature	**0207.9.1** Use tools such as hand lenses, measurement devices, and simple arm balances to gather data about the physical properties of different objects.	

changes affect the state of matter.	**0207.9.2** Describe what happens when ice changes from a solid to a liquid. **0207.9.3** Describe what happens when water is heated to the point of evaporation.	
GLE 0207.9.3 Recognize that air takes up space.	**0207.9.4** Explain what happens when a balloon is blown up and pops.	**37. Reduce, Reuse, Recycle** (p.159)

Grade 2 : Standard 10 - Energy

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.10.1 Explain why the sun is the primary source of the earth's energy.	**0207.10.1** Identify and explain how the sun affects objects on the surface of the earth. **0207.10.2** Investigate how the sun affects various objects and materials.	

Grade 2 : Standard 11 - Motion

Learning Expectations	Checks for Understanding	PLT Correlations
GLE 0207.11.1 Investigate how vibrating objects produce sound. **GLE 0207.11.2** Classify sounds according to their loudness and pitch.	**0207.11.1** Use a variety of objects that vibrate to demonstrate how sounds are produced. **0207.11.2** Describe the sounds produced by different types of vibrating objects.	**4. Sounds Around** (p.26)