

PLT Correlations: SCIENCE GRADE 6 (revised 5/2010)

Grade 6 : Embedded Inquiry

Learning Expectations	Project PLT Correlations
<p>GLE 0607.Inq.1 Design and conduct open-ended scientific investigations.</p>	
<p>GLE 0607.Inq.2 Use appropriate tools and techniques to gather, organize, analyze, and interpret data.</p>	<p>9. Planet Diversity, p.45 - Students describe, in minute detail, all the life they find in a small plot of land.</p> <p>20. Environmental Exchange Box, p.92 - By exchanging boxes with classes in other regions, students compare the other regions to their own.</p> <p>21. Adopt a Tree, p. 97 - In Part B, students use a journal to record observations and answer questions about their adopted tree.</p> <p>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. As a Variation, they inventory life associated with urban structures.</p> <p>23. The Fallen Log, p.105 - Students become familiar with some of those organisms by inventorying life in and on fallen logs.</p> <p>24. Nature's Recyclers, p.108 - Students devise an experiment to investigate the eating habits of one of pill bugs or earthworms.</p> <p>25. Birds and Worms, p.111 - As an Enrichment, students compare results for collecting colored “worms” scattered on different “backgrounds”.</p> <p>27. Every Tree For Itself, p.117 - Students record and compare results of the simulation for rounds conducted according to different scenarios.</p> <p>29. Rain Reasons, p.123 - Students design experiments to see how climatic factors influence the growth of plants.</p> <p>41. How Plants Grow, p.179 - Students design and conduct tests to study plants’ needs for light, water, and soil.</p> <p>47. Are Vacant Lots Vacant?, p.200 - Students stake out a “plot” and inventory the plant and animal life within the plot.</p> <p>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.</p> <p>70. Soil Stories, p.297 - In Part B, students use a “Percolation Test” to test how well soils in different outdoor locations drain water.</p> <p>71. Watch on Wetlands, p. 303 - Students conduct field studies in a local wetland, and learn how land-use decisions and legislation affect wetland areas.</p>

	<p>76. Tree Cookies, p.327 - Students examine a “tree cookie” to estimate its age when it was cut and to interpret the “clues” rings give as to environmental events the tree experienced.</p> <p>77. Trees In Trouble, p.332 - Students examine trees for signs of damage or poor health and conduct experiments to determine the effects of crowding, acid, and fertilizer on seedling height and radish diameter.</p> <p>78. Signs of Fall, p.299 - In Part B, students use a “paper chromatography” process to separate the pigments in leaves.</p> <p>80. Nothing Succeeds Like Succession, p.345 - Students investigate the connection between plants, animals, and successional stages in a local ecosystem.</p>
<p>GLE 0607.Inq.3 Synthesize information to determine cause and effect relationships between evidence and explanations.</p> <p>GLE 0607.Inq.4 Recognize possible sources of bias and error, alternative explanations, and questions for further exploration.</p> <p>GLE 0607.Inq.5 Communicate scientific understanding using descriptions, explanations, and models.</p>	

Grade 6 : Embedded Technology & Engineering		
Learning Expectations	Checks for Understanding	Project PLT Correlations
<p>GLE 0607.T/E.1 Explore how technology responds to social, political, and economic needs.</p> <p>GLE 0607.T/E.2 Know that the engineering design process involves an ongoing series of events that incorporate design constraints, model building, testing, evaluating, modifying, and retesting.</p> <p>GLE 0607.T/E.3 Compare the intended benefits with the unintended consequences of a new technology.</p>	<p>0607.T/E.1 Use appropriate tools to test for strength, hardness, and flexibility of materials.</p> <p>0607.T/E.2 Apply the engineering design process to construct a prototype that meets certain specifications.</p> <p>0607.T/E.3 Explore how the unintended consequences of new technologies can impact society.</p>	

<p>GLE 0607.T/E.4 Describe and explain adaptive and assistive bioengineered products.</p>	<p>0607.T/E.4 Research bioengineering technologies that advance health and contribute to improvements in our daily lives.</p> <p>0607.T/E.5 Develop an adaptive design and test its effectiveness.</p>	
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Grade 6 : Standard 2 - Interdependence

Learning Expectations	Checks for Understanding	Project PLT Correlations
<p>GLE 0607.2.1 Examine the roles of consumers, producers, and decomposers in a biological community.</p>	<p>0607.2.1 Compare and contrast the different methods used by organisms to obtain nutrition in a biological community.</p>	<p>23. The Fallen Log, p.105 24. Nature's Recyclers, p.108 45. Web of Life, p.194 79. Tree Lifecycle, p.341</p>
<p>GLE 0607.2.2 Describe how matter and energy are transferred through an ecosystem.</p>	<p>0607.2.3 Use a food web or energy pyramid to demonstrate the interdependence of organisms within a specific biome.</p>	<p>41. How Plants Grow, p.179</p>
<p>GLE 0607.2.3 Draw conclusions from data about interactions between the biotic and abiotic elements of a particular environment.</p>	<p>0607.2.2 Create a graphic organizer that illustrates how biotic and abiotic elements of an environment interact.</p>	<p>21. Adopt a Tree, p.97 22. Trees as Habitats, p.102 25. Birds and Worms, p.111 – Assessment 26. Dynamic Duos, p.113 27. Every Tree For Itself, p.117 45. Web of Life, p.194 47. Are Vacant Lots Vacant?, p.200 48. Field, Forest and Stream, p.203 70. Soil Stories, p.297 76. Tree Cookies, p.327 77. Trees In Trouble, p.332 78. Signs of Fall, p.299 80. Nothing Succeeds Like Succession, p.345</p>

<p>GLE 0607.2.4 Analyze the environments and the interdependence among organisms found in the world's major biomes.</p>	<p>0607.2.4 Create poster presentations to illustrate differences among the world's major biomes.</p>	<p>7. Habitat Pen Pals, p.37 8. The Forest of S.T. Shrew, p.40 9. Planet Diversity, p.45 10. Charting Diversity, p.50 20. Environmental Exchange Box, p.92 29. Rain Reasons, p.123 45. Web of Life, p.194 71. Watch on Wetlands, p. 303</p>
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Grade 6 : Standard 8 - The Atmosphere

Learning Expectations	Checks for Understanding	Project PLT Correlations
<p>GLE 0607.8.1 Design and conduct an investigation to determine how the sun drives atmospheric convection.</p> <p>GLE 0607.8.2 Describe how the sun's energy produces the wind.</p> <p>GLE 0607.8.3 Investigate the relationship between currents and oceanic temperature differences.</p> <p>GLE 0607.8.4 Analyze meteorological data to predict weather conditions.</p>	<p>0607.8.1 Recognize how convection currents in the atmosphere produce wind.</p> <p>0607.8.2 Design an experiment to investigate differences in the amount of the sun's energy absorbed by a variety of surface materials.</p> <p>0607.8.3 Design an experiment to demonstrate how ocean currents are associated with the sun's energy.</p> <p>0607.8.4 Analyze ocean temperature data to demonstrate how these conditions affect the weather in nearby land masses.</p> <p>0607.8.5 Interpret data found on ocean current maps.</p> <p>0607.8.6 Use data collected from instruments such as a barometer, thermometer, psychrometer, and anemometer to describe local weather conditions.</p>	

Grade 6 : Standard 12 – Forces in Nature

Learning Expectations	Checks for Understanding	Project PLT Correlations
<p>GLE 0607.12.1 Describe how simple circuits are associated with the transfer of electrical energy.</p>	<p>0607.12.1 Prepare a poster that illustrates how electricity passes through a simple circuit to produce heat, light, or sound.</p>	
<p>GLE 0607.12.2 Explain how simple electrical circuits can be used to determine which materials conduct electricity.</p>	<p>0607.12.2 Determine a material's electrical conductivity by testing it with a simple battery/bulb circuit.</p> <p>0607.12.3 Compare and contrast the characteristics of objects and materials that conduct electricity with those that are electrical insulators.</p>	