PLT Correlations to Third Grade DCPS Science Standards

December 2008

Note: All PLT Activities are from the PLT *PreK-8 Environmental Education Activity Guide* except where noted. The numbers in the second and third columns refer to PLT activity numbers, found sequentially in the PreK-8 Guide. The Power Standards/Indicators found in the Pacing Guides are bolded.

SCIENTIFIC THINKING AND INQUIRY Broad Concepts/Standards and Standards/Indicators	**PLT Activities**	**Instructional Strategies/Integration Opportunities**
3.1. Broad Concept: Scientific progress is made by asking relevant questions and conducting careful investigations. As a basis for understanding this concept, and to address the content in this grade, students should develop their own questions and perform investigations.		
3.1.1. Recognize and explain that when a scientific investigation is repeated, carefully and under the same conditions, a similar (but not necessarily identical) result is expected. **3.1.2.** Participate in different types of guided scientific investigations (related to content in this grade), such as observing objects and events and collecting specimens for analysis, including longer-term investigations that take place over several days, weeks, or months. **3.1.3.** Keep and report records of investigations and observations using tools, such as journals, charts, graphs, and computers. **3.1.4.** Discuss the results of investigations and consider the explanations of others. **3.1.8.** Appropriately use simple tools — such as clamps, rulers, scissors, and hand lenses, as well as	28 Air Plants 46 Schoolyard Safari 48 Field, Forest, and Stream (Variation) 70 Soil Stories (Part A) 78 Signs of Fall (Part B)	(28) Includes "cut out" student page to use for assessment. (46) Integrates use of hand lenses for investigation and technology (digital and video cameras) to record observations. (78) Provides sample student results for comparison.

other technology (e.g., calculators and computers) — to help solve problems. **3.1.10.** Ask, "How do you know?" in appropriate situations, and attempt reasonable answers when others ask the same question.		
3.1.5. Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating one's own conclusions about findings.	46 Schoolyard Safari 48 Field, Forest, and Stream (Variation) 70 Soil Stories (Part A)	(46) Students work in small groups to record data on a provided survey sheet and then share their experiences and compare their findings with the other groups.
3.1.6. Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.	70 Soil Stories (Part A)	
3.1.7. Keep a notebook that describes ongoing observations and that is still understandable weeks or months later.	21 Adopt a Tree (Part B)	(21) Includes student page with activities for students to do and record the results of in their notebooks over time.
3.1.9. Make sketches and write descriptions to aid in explaining procedures or ideas.	2 Get in Touch with Trees 8 The Forest of S.T. Shrew 21 Adopt a Tree (Part B)	(2) Students describe and compare/ contrast objects and trees investigated with writing, drawing, and Venn Diagrams. (8) Assessment opportunity provides questions for students to respond to with writing or drawings.
3.1.11. Explain that one way to make sense of something is to think of how it compares to something more familiar (e.g., vibrations of an object in air such as a tuning fork, a plucked string of a string	4 Sounds Around 27 Every Tree for Itself	(27) Students will make circular timelines of their lives on paper plates to help them understand the growth rings on a tree cookie.

instrument, human vocal cords).	62 To Be a Tree	(62) Students create tree costumes using materials that help explain the parts of the tree (e.g., straws glued to inside of brown paper bag vests or "trunks" represent phloem which carries food to the rest of the tree from the leaves; paper towel strips dipped in colored water demonstrates roots absorbing water and nutrients from the soil).

SCIENCE AND TECHNOLOGY **Broad Concepts/Standards and Standards/Indicators**	**PLT Activities**	**Instructional Strategies/Integration Opportunities**
3.2. Broad Concept: Although each of these human enterprises of science and technology has a character and history of its own, each is dependent on and reinforces the other.		
3.2.1. Define technology as the application of human ingenuity and skill to the solution of practical problems (e.g., typewriter, computer).	51 Make Your Own Paper 53 On the Move	(51) Video at www.plt.org under Curriculum and then PreK-8 helps teach students about the papermaking process.
3.2.2. Identify and demonstrate how an invention can be used in different ways, such as a radio or a cell phone that can be used to receive both information and entertainment.	51 Make Your Own Paper	
3.2.3. Construct something to perform a task, by using commonly available materials, such as paper, cardboard, wood, plastic, or metal, or by using existing objects.	20 Environmental Exchange Box 43 Have Seeds, Will Travel (Enrichment)	(20) PLT will match you with a partner school to exchange boxes created by students. Boxes may include student-made drawings, photos, collages, videos, existing natural objects, etc.

	51 Make Your Own Paper	(43) Students are challenged to create their own seed with a specialized dispersal mechanism using string, rubber bands, Velcro, toothpicks, paint, etc.). Seed diagrams and categories of dispersal are provided.

EARTH SCIENCE **Broad Concepts/Standards and Standards/Indicators**	**PLT Activities**	**Instructional Strategies/Integration Opportunities**
3.3. Broad Concept: Objects in the sky move in regular and predictable patterns.		
3.3.1. – 3.3.6	N/A	

PHYSICAL SCIENCE **Broad Concepts/Standards and Standards/Indicators**	**PLT Activities**	**Instructional Strategies/Integration Opportunities**
3.4. Broad Concept: Energy takes many forms and has many sources.		
3.4.1. Recognize that energy is needed to carry out almost any kind of change.	39 Energy Sleuths (Part A) PLT's *Energy & Society* Kit: 1 Energy Detectives 2 May the Source Be with You 3 Energy Chains 4 What Power's the Move?	

	5 In the Driver's Seat 6 Energy Challenge Game	
3.4.2. Describe basic forms of energy, including mechanical (kinetic and potential), light, sound, heat, chemical, nuclear, and electrical. **3.4.3. Recognize that energy can be transformed from one form to another.**	PLT's *Energy & Society* Kit: 1 Energy Detectives 3 Energy Chains 6 Energy Challenge Game	
3.4.4. Describe how people use electricity or the chemical energy from burning fuels, such as wood, oil, coal, or natural gas, to obtain heat energy for doing tasks, such as cooking their food and warming their houses.	39 Energy Sleuths (Part A) PLT's *Energy & Society* Kit: 1 Energy Detectives 2 May the Source Be with You 3 Energy Chains 6 Energy Challenge Game	(39) Integrates curricular/personal connections in discussion questions.
3.4.5. Investigate and describe how moving air and water (carriers of kinetic energy, the energy of motion) can be used to run machines like windmills and waterwheels.	PLT's *Energy & Society* Kit: 1 Energy Detectives 2 May the Source Be with You 3 Energy Chains 6 Energy Challenge Game	
3.4.6. Demonstrate that things that make sound do so by vibrating objects, such as vocal cords and musical instruments. Describe that the sound travels as a vibration through the air.	4 Sounds Around PLT's *Energy & Society* Kit: 1 Energy Detectives	

LIFE SCIENCE Broad Concepts/Standards and Standards/Indicators	PLT Activities	Instructional Strategies/Integration Opportunities
3.5. Broad Concept: Plants and animals can be classified according to the physical characteristics that they share.		
3.5.1. Demonstrate that a great variety of living things can be sorted into groups in many ways using various properties, such as how they look, where they live, and how they act, in order to decide which things belong to which group. **3.5.2.** Explain that characteristics used for classification depend on the purpose of the grouping.	1 The Shape of Things (Part B) 6 Picture This! (Part B) 10 Charting Diversity (specified for grades 4-8, however easily adapted for grade 3 and perfect connection to these standards)	(1) Use a graphic organizer or spreadsheet to organize things found in nature with different shapes. Sample spreadsheet is provided at www.plt.org under Curriculum and then PreK-8. (6) Integrate sample graphic organizer found at www.plt.org as a warm up to students creating exhibits that group animals and plants according to different traits. (10) Sample chart provided to organize species of plants and animals according to characteristics such as where it lives, how it moves, etc.

LIFE SCIENCE Broad Concepts/Standards and Standards/Indicators	PLT Activities	Instructional Strategies/Integration Opportunities
3.6. Broad Concept: Plants and animals have predictable life cycles.		
3.6.1. Recognize that plants and animals go through predictable life cycles that include birth, growth, development, reproduction, and death.	79 Tree Lifecycle 80 Nothing Succeeds Like Succession	(79) Sample diagram of tree lifecycle provided; student page included to help students record information on their tree.

3.6.2. Describe the life cycle of some living things, such as the frog and butterfly, including how they go through striking changes of body shape and function as they go through metamorphosis.	79 Tree Lifecycle	(79) Describes lifecycle of trees and changes of body shape and function. (Metamorphosis in animals not discussed.)
3.6.3. Compare and contrast how life cycles vary for different living things.	79 Tree Lifecycle	(79) Questions provided in activity that support students in comparing lifecycle of a person to that of a tree.

LIFE SCIENCE **Broad Concepts/Standards and Standards/Indicators**	**PLT Activities**	**Instructional Strategies/Integration Opportunities**
3.7. Broad Concept: Humans have a variety of mechanisms to stay healthy.		
3.7.1. Explain that people need water, food, air, waste removal, and a particular range of temperatures, just as other animals do, although different animals can tolerate very different ranges of temperature and other features of their surroundings.	27 Every Tree for Itself 49 Tropical Treehouse (Part A)	(27) Comparison to needs of plants, not animals, but same concepts covered of needing water, food, etc. in a fun game that gets students moving.
3.7.2. Explain that eating a variety of healthful foods and getting enough exercise and rest help people stay healthy.	16 Pass the Plants, Please	(16) Integrate discussion of nutrition based on information provided in Background section of activity.
3.7.3. Explain that some things people take into their bodies from the environment can hurt them, and give examples of such things.	16 Pass the Plants, Please 36 Pollution Search 53 On the Move (Enrichment)	(16) Includes discussion of plant parts that can be inedible/poisonous to humans; and safety note about food allergies. (36) Integrates walk outside or inside to identify sources of pollution. Suggests

		using bar graph to record number of different types of pollution. Also includes student page that can be used for assessment.
3.7.4. Recognize that food provides energy as well as materials for growth, maintenance, and repair of body parts.	39 Energy Sleuths PLT's *Energy & Society* Kit: 1 Energy Detectives 2 May the Source Be with You 3 Energy Chains 6 Energy Challenge Game	
3.7.5. Recognize that vitamins and minerals are substances required by the body in small amounts to synthesize essential substances and carry out essential processes.	16 Pass the Plants, Please	(16) Standard content is not directly stated in activity but the activity can easily be used as basis for this discussion.
3.7.6. Describe how, as a person matures, the amounts and kinds of food and exercise needed by the body change.	N/A	