

Wyoming Project Learning Tree
Correlation Key
to
The Wyoming Science Performance and Content Standards
for
Grades K-4

Introduction:

The purpose of this document is to provide Wyoming educators who use Project Learning Tree materials with an easy reference guide in how PLT's activities correlate to the Wyoming Science Content and Performance Standards for grades K-4. Project Learning Tree is an interdisciplinary environmental education program. PLT activities supplement curriculum and can be used to organize instructional units in a variety of subjects. Educators can use PLT activities to teach or assess mastery of science skills in basic concepts and knowledge, unifying concepts and processes, inquiry, habits of mind, communicating and applying scientific concepts and principles, history and nature of science, science and technology, and safety in scientific inquiry.

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CONTENT STANDARD: 1. BASIC CONCEPTS AND KNOWLEDGE
Students develop an understanding of scientific concepts using facts, theories, principles, and models.

Matter and Energy

Benchmark 1: Students classify objects by properties of matter that can be observed, measured and recorded including, color, shape, size, amount (mass), texture, and temperature.

- 2. Get In Touch With Trees
- 6. Picture This!
- 7. Habitat Pen-Pals
- 9. Planet Of Plenty
- 12. Tree Treasures
- 13. We All Need Trees
- 37. Talking Trash, Not!
- 43. Have Seeds Will Travel
- 64. Looking At Leaves
- 68. Name That Tree
- 80. Nothing Succeeds Like Succession
- 81. Living With Fire
- 83. Reduce, Reuse, Recycle

Benchmark 2: Students demonstrate that the processes of heating and cooling can change matter from one state to another.

- 44. Water Wonders

Benchmark 3: Students develop an awareness of physical phenomena commonly encountered in daily life including light, heat,

electricity, sound, and magnetism.

- 4. Sounds Around
- 27. Every Tree For Itself
- 28. Air Plants
- 42. Sunlight And Shades Of Green

Force and Motion

Benchmark 4: Students demonstrate how pushing and pulling can change the position and motion of objects.

- 4. Sounds Around

Ecology

Benchmark 5: Students develop an understanding and provide examples of interdependencies of organisms within an ecosystem, including food chains and webs, weather and climate, and basic needs of food, water, air, light, shelter, and space.

- 7. Habitat Pen-Pals
- 9. Planet Of Plenty
- 11. Can It Be Real?
- 17. People Of The Forest
- 22. Trees As Habitats
- 45. Web Of Life
- 49. Tropical Treehouse
- 79. Tree Lifecycle

Adaptation

Benchmark 6: Students identify adaptations of plants and animals that enhance the survival in the environment.

- 10. Charting Diversity
- 11. Can It Be Real?
- 61. The Closer You Look
- 62. To Be A Tree
- 63. Tree Factory
- 64. Looking At Leaves
- 65. Bursting Buds
- 66. Germinating Giants
- 67. How Big Is Your Tree?
- 68. Name That Tree

Reproduction

Benchmark 7: Students illustrate the life cycles of plants and animals.

- 21. Adopt A Tree
- 41. How Plants Grow
- 63. Tree Factory
- 65. Bursting Buds
- 66. Germinating Giants
- 78. Signs Of Fall
- 79. Tree Lifecycle
- 80. Nothing Succeeds Like Succession
- 82. Resource-Go-Round

Classification

Benchmark 8: Students group living and nonliving things using

observable characteristics.

- 2. Get In Touch With Trees
- 6. Picture This!
- 9. Planet Of Plenty
- 12. Tree Treasures
- 13. We All Need Trees
- 37. Talking Trash, Not!
- 43. Have Seeds Will Travel
- 68. Name That Tree
- 80. Nothing Succeeds Like Succession
- 81. Living With Fire
- 83. Reduce, Reuse, Recycle

Structure and Function

Benchmark 9: Students relate structure to function in plant and animal systems.

- 61. The Closer You Look
- 62. To Be A Tree
- 65. Bursting Buds

Earth and Science

Benchmark 10: Students compare basic properties of rocks, soil, water, fossils, and minerals.

- 14. Renewable Or Not?
- 38. Every Drop Counts
- 48. Field, Forest, and Stream
- 82. Resource-Go-Round

Benchmark 11: Students measure daily indicators of weather conditions.

- 48. Field, Forest, and Stream

Benchmark 12: Students observe patterns in seasonal weather changes, sun positions, and moon phases.

- 65. Bursting Buds
- 78. Signs Of Fall

Benchmark 13: Students research findings and developments in space exploration.

PLT activities do not apply as written, but with modifications and adjustments, some activities may correlate with the benchmark.

Benchmark 14: Students identify changes that affect the earth's surface including volcanoes, earthquakes, wind and water erosion, and human influences.

- 44. Water Wonders
- 49. Tropical Treehouse
- 81. Living With Fire

CONTENT STANDARD: 2. UNIFYING CONCEPTS AND PROCESSES

Students recognize patterns and processes, making connections in terms of systems and subsystems that explain the interrelationships of the natural and designed world.

Benchmark 1: Students identify patterns that are based on scientific evidence.

- 22. Trees As Habitats
- 25. Birds and Worms
- 27. Every Tree For Itself
- 48. Field, Forest and Stream
- 76. Tree Cookies
- 78. Signs Of Fall
- 80. Nothing Succeeds Like Succession
- 81. Living With Fire
- 95. Did You Notice?

Benchmark 2: Students recognize systems, order, and organization.

- 41. How Plants Grow
- 42. Sunlight and Shades Of Green
- 43. Have Seeds Will Travel
- 44. Water Wonders
- 45. Web Of Life
- 46. School Yard Safari
- 47. Are Vacant Lots Vacant?
- 48. Field, Forest and Stream
- 49. Tropical Treehouse
- 53. On The Move

Benchmark 3: Students recognize that the world is constantly changing.

- 3. The Peppermint Beetle
- 40. Then and Now
- 65. Bursting Buds
- 66. Germinating Giants
- 76. Tree Cookies
- 77. Trees In Trouble
- 78. Signs Of Fall
- 79. Tree Lifecycle
- 80. Nothing Succeeds Like Succession
- 81. Living With Fire
- 88. Life On The Edge
- 95. Did You Notice?

Benchmark 4: Students give examples of cycles of change.

- 65. Bursting Buds
- 66. Germinating Giants
- 76. Tree Cookies
- 78. Signs Of Fall
- 79. Tree Lifecycle
- 80. Nothing Succeeds Like Succession
- 81. Living With Fire
- 82. Resource-Go-Round
- 83. Reduce, Reuse, Recycle

Benchmark 5: Students recognize the importance of measurement.

- 41. How Plants Grow
- 48. Field, Forest and Stream
- 66. Germinating Giants
- 67. How Big Is Your Tree?

Benchmark 6: Students recognize the form of an object is related to it's function.

22. Trees As Habitats
61. The Closer You Look
62. To Be A Tree
63. Tree Factory
64. Looking At Leaves
65. Bursting Buds

Benchmark 7: Students show connections among the science disciplines.

PLT activities do not apply as written, but with modifications and adjustments, some activities may correlate with the benchmark.

CONTENT STANDARD: 3. SCIENCE AS INQUIRY
Students demonstrate knowledge and skills necessary to perform scientific inquiry.

Benchmark 1: Students conduct a simple investigation to include observation and data collection.

1. The Shape Of Things
4. Sounds Around
9. Planet Of Plenty
21. Adopt A Tree
22. Trees As Habitats
23. The Fallen Log
24. Nature's Recyclers
36. Pollution Search
37. Talking Trash, Not!
41. How Plants Grow
43. Have Seeds Will Travel
46. School Yard Safari
47. Are Vacant Lots Vacant?
48. Field, Forest and Stream
61. The Closer You Look
65. Bursting Buds
67. How Big Is Your Tree?
77. Trees In Trouble
78. Signs Of Fall
80. Nothing Succeeds Like Succession

Benchmark 2: Students employ simple equipment and tools to gather data.

4. Sounds Around
9. Planet Of Plenty
21. Adopt A Tree
22. Trees As Habitats
24. Nature's Recyclers
41. How Plants Grow
47. Are Vacant Lots Vacant?
48. Field, Forest and Stream
67. How Big Is Your Tree?
77. Trees In Trouble
80. Nothing Succeeds Like Succession

Benchmark 3: Students analyze and interpret using simple graphs, charts, diagrams, and models to communicate results.

4. Sounds Around
9. Planet Of Plenty
22. Trees As Habitats
23. The Fallen Log
36. Pollution Search
37. Talking Trash, Not!
41. How Plants Grow
46. School Yard Safari
47. Are Vacant Lots Vacant?
48. Field, Forest and Stream
67. How Big Is Your Tree?
77. Trees In Trouble
80. Nothing Succeeds Like Succession

Benchmark 4: Students conduct a simple investigation of their own questions, independently or cooperatively.

41. How Plants Grow

CONTENT STANDARD: 4. HABITS OF MIND

Students develop habits of mind, including curiosity, open-mindedness and persistence.

Benchmark 1: Students develop habits of mind that include curiosity to pursue scientific questioning, acceptance of uncertainty and current limitations in science, persistence in learning, and appreciation for the world around them.

8. The Forest Of S.T. Shrew
21. Adopt A Tree
23. The Fallen Log
24. Nature's Recyclers
30. Three Cheers For Trees
31. Plant A Tree
87. Earth Manners

CONTENT STANDARD: 5. COMMUNICATION

Students communicate and apply scientific concepts.

Benchmark 1: Students access scientific information from technology, text and members of the community.

6. Picture This!
7. Habitat Pen-Pals
10. Charting Diversity
12. Tree Treasures
16. Pass The Plants, Please
31. Plant A Tree
37. Talking Trash, Not!
41. How Plants Grow
45. Web Of Life
76. Tree Cookies
77. Trees In Trouble
88. Life On The Edge
95. Did You Notice?

Benchmark 2: Students construct simple graphs, charts, diagrams, and models to communicate scientific ideas.

- 4. Sounds Around
- 9. Planet Of Plenty
- 22. Trees As Habitats
- 23. The Fallen Log
- 37. Talking Trash, Not!
- 41. How Plants Grow
- 46. School Yard Safari
- 47. Are Vacant Lots Vacant?
- 48. Field, Forest and Stream
- 67. How Big Is Your Tree?
- 77. Trees In Trouble
- 80. Nothing Succeeds Like Succession

Benchmark 3: Students communicate the relationship of science to their lives using oral, written, and visual formats.

- 36. Pollution Search
- 37. Talking Trash, Not!

Benchmark 4: Students communicate utilizing scientific vocabulary.

- 7. Habitat Pen-Pals
- 9. Planet Of Plenty
- 10. Charting Diversity
- 11. Can It Be Real?
- 14. Renewable Or Not?
- 15. A Few Of My Favorite Things
- 23. The Fallen Log
- 25. Birds and Worms
- 28. Air Plants
- 36. Pollution Search
- 42. Sunlight and Shades Of Green
- 44. Water Wonders
- 45. Web Of Life
- 49. Tropical Treehouse
- 63. Tree Factory
- 67. How Big Is Your Tree?
- 68. Name That Tree
- 69. Forest For The Trees
- 76. Tree Cookies
- 88. Life On The Edge

CONTENT STANDARD: 6. SCIENCE IN PERSONAL AND SOCIAL PERSPECTIVES
Students apply scientific principles to personal and social issues.

Benchmark 1: Students acknowledge that they are scientists.

- 9. Planet Of Plenty

Benchmark 2: Students recognize that stewardship of renewable and non-renewable resources is necessary for maintaining food supply, agricultural products, and mineral resources.

- 14. Renewable Or Not?
- 15. A Few Of My Favorite Things
- 69. Forest For The Trees
- 82. Resource-Go-Round

- 83. Reduce, Reuse, Recycle
- 89. Trees For Many Reasons

Benchmark 3: **Students identify their personal role in stewardship, basic human needs, environmental hazards, natural hazards, and local science issues.**

- 14. Renewable Or Not?
- 15. A Few Of My Favorite Things
- 36. Pollution Search
- 37. Talking Trash, Not!
- 38. Every Drop Counts
- 49. Tropical Treehouse
- 69. Forest For The Trees
- 81. Living With Fire
- 82. Resource-Go-Round
- 83. Reduce, Reuse, Recycle
- 88. Life On The Edge
- 89. Trees For Many Reasons
- 90. The Native Way
- 91. In The Good Old Days

CONTENT STANDARD: 7. HISTORY AND SCIENCE OF NATURE

Students develop an understanding of the nature of science as a human endeavor.

Benchmark 1: **Students provide examples of the contributions of past and present scientists.**

PLT activities do not apply as written, but with modifications and adjustments, some activities may correlate with the benchmark.

Benchmark 2: **Students give examples that show how scientific ideas change over time.**

- 91. In The Good Old Days

CONTENT STANDARD: 8. SCIENCE AND TECHNOLOGY

Students develop skills in using technology and recognize the relationship between technology and science, including its potential and limits.

Benchmark 1: **Students describe how technology affects everyday life.**

- 14. Renewable Or Not?
- 15. A Few Of My Favorite Things
- 34. Who Works In This Forest?
- 36. Pollution Search
- 37. Talking Trash, Not!
- 38. Every Drop Counts
- 82. Resource-Go-Round
- 83. Reduce, Reuse, Recycle

Benchmark 2: **Students explain the relationship between technology and man's desire to solve problems and improve life.**

- 15. A Few Of My Favorite Things

- 36. Pollution Search
- 37. Talking Trash, Not!
- 38. Every Drop Count
- 82. Resource-Go-Round
- 83. Reduce, Reuse, Recycle

CONTENT STANDARD: 9. Safety

Students exercise care in scientific inquiry and recognize the importance of safety.

Benchmark 1: Students exercise care in scientific inquiry and recognize the importance of safety.

- 42. Sunlight And Shades Of Green
- 81. Living With Fire

Benchmark 2: Students select and use appropriate safety equipment.

- 81. Living With Fire

Benchmark 3: Students recognize hazards and appropriate safety symbols.

- 81. Living With Fire

Benchmark 4: Students observe standard safety procedures.

- 81. Living With Fire

Benchmark 5: Students exhibit responsible, appropriate conduct.

- 42. Sunlight And Shades Of Green
- 81. Living With Fire

Benchmark 6: Students recognize how safety issues relate to everyday life.

- 82. Living With Fire

