PROJECT LEARNING TREE'S PREK-8 ACTIVITY GUIDE

AND

ENERGY & SOCIETY KIT TO NH FRAMEWORKS FOR SCIENCE LITERACY (K-12)

New Hampshire Project Learning Tree

March 1998
Revised September 2006

This handbook is a project of New Hampshire Project Learning Tree, a private non-profit organization committed to the environmental education of our youth. The handbook is dedicated to the hundreds of school teachers and administrators who are responding to the state's move to standards-based education. Yours is not an easy job; we hope this handbook helps to lighten the load.

We would like to hear from our readers about how you have used the handbook and whether you find it accurate and clear. You can reach NH Project Learning Tree at

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METHODOLOGY
2006 Correlation Revision (Science)

NH's curriculum standards have undergone substantial change in response to the federal No Child Left Behind Act. The former state standards were written for the end of grades three, six and ten. To meet new formalized assessment requirements, the NH Frameworks for Science Literacy (K-12), approved in June 2006, address content and skills, and are divided into grade spans for K-2, 3-4, 5-6, 7-8, 9-11 (basic literacy) and 11-12 (advanced literacy).

The NH Frameworks for Science Literacy (K-12) contain the following components:

- Domain: There are four domains within the science curriculum frameworks: Earth Space Science (ESS), Life Science (LS), Physical Science (PS), and Science Process Skills (SPS).
- Strand: There are five strands, or enduring knowledge statements, in LS and four each in domains of PS and ESS. Strands are the SAME for each grade span although not all components may be seen in each grade span. (Example: LS1 – All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species.))
- Stem: These are the categories of ideas. Stems are common throughout all grade spans. (Example: 1. Classification)
- Grade-span Expectations (Proficiencies): These are what all students should know and be able to do within a specific grade range. The ranges include: K-2, 3-4, 5-6, 7-8, 9-11 (basic literacy level) 11-12 (advanced level).

For each strand, the associated proficiencies were consulted to help inform the degree of correlation of the broader strand with each activity; a match of at least one proficiency was required to indicate a correlation. Three elements of each activity will help focus the correlation process.

- The subject identifier in the sidebar determined whether the activity was correlated to the science frameworks; if science is not listed the activity was not be addressed.
- The grade levels noted in the sidebar determined which grade span proficiencies were examined.
- The description of activity objectives in the sidebar informed which curriculum and proficiency standard(s) are related to the activity.

Note: Any attempt to correlate universal curriculum standards and a single curriculum program involves subjectivity. Two important steps were taken to limit bias. First, the author applied this rigorous methodology to determine correlation. Second, drafts were peer-reviewed by PLT-trained elementary, middle, and high school teachers. Reviewers most common finding was that PLT activities lend themselves to modification, and in so doing, would meet many more standards than indicated. NHPLT chose, however, to correlate based on a strict interpretation of the activities, as they are written.

HOW TO USE THIS HANDBOOK

The purpose of this handbook is to assist educators who are reviewing and revising their science curricula. The primary audience is classroom teachers, curriculum specialists, and curriculum committees.

The handbook is divided into three sections, as follows:

- **<u>PART I</u> lists each PLT activity in the *PreK-8 Activity Guide* and *Energy & Society Kit* followed by the standards from the NH Frameworks for Science Literacy (K-12) with which it is aligned.**

  Use Part I if you have a particular PLT activity in mind and want to know how it correlates with the state curriculum standards. Or, to find an appropriate activity to meet your needs, use PLT's "Topic Index" to select several potential activities to supplement your unit. To determine which state standards correlate with these activities, find the number and name of each activity in this handbook. Select an activity based on your objectives for your unit and the degree to which the activity correlates with appropriate standards. Each PLT activity is indicated by activity number and name and is followed by the strand and stem for each framework that is correlated to that activity.

- **<u>PART II</u> lists individual state curriculum standards from the NH Frameworks for Science Literacy (K-12), followed by the PLT activities that meet the individual standards.**

  Use Part II if you have a particular curriculum standard in mind and want to find an activity that meets this standard. Then read about the activities in your PLT guide to determine the one most suitable for your particular situation.

  All science domains (i.e. Life Science), strands (i.e. All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species) and stems (i.e. 1- Classification) are listed. Following each standard, the PLT activities aligned with that standard are identified by number and name.

- **<u>Part III</u> is a chart that lists each PLT activity in the *PreK-8 Activity Guide* and *Energy & Society Kit* and the standards from the NH Frameworks for Science Literacy (K-12) with which each activity is aligned.**

Note: Throughout this handbook, the domains are abbreviated as follows:

ESS – Earth Space Science
LS – Life Science
PS – Physical Science
SPS – Science Process Skills

Project Learning Tree Activities

1: The Shape of Things

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS4 – Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

2: Get In Touch With Trees

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives
1 – Collaboration in Scientific Endeavors

SPS4 – Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

3: Peppermint Beetle

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors

4: Sounds Around

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification
2 - Living Things and Organization

4: Sounds Around (cont.)

LS4 – Humans are similar to other species in many ways, and yet are unique among Earth's life forms.

1 - Behavior

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

2 - Tools

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

3 - Conducting Scientific Investigations

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

2 - Common Environmental Issues, Natural Resources Management and Conservation

3 - Science and Technology; Technological Design and Application

SPS4 - Science Skills for Information, Communication, and Media Literacy

4 - Problem Identification, Formulation, and Solution

6 - Interpersonal and Collaborative Skills

5: Poet-Tree

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

6: Picture This!

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

1 - Classification

2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.

1 - Environment

6: Picture This! (cont.)

ESS1 -The Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.

1 - Atmosphere, Climate, and Weather

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

7: Habitat Pen Pals

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

1 - Classification

2 - Living Things and Organization

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

8: The Forest of S.T. Shrew

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.

1 - Environment

3 - Recycling of Materials

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication, and Media Literacy

3 - Critical Thinking and Systems Thinking

9: Planet Diversity

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations
4 - Representing and Understanding Results of Investigations
5 - Evaluating Scientific Investigations

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

10: Charting Diversity

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification
2 - Living Things and Organization

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

11: Can It Be Real?

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification

11: Can It Be Real? (cont.)

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
2 - Evolution

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

12: Invasive Species

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 – Classification
2 – Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 – Change
3 – Natural Selection

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
2 - Communication Skills

13: We All Need Trees

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

1 - Classification

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

1 - Design Technology

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy

6 - Interpersonal and Collaborative Skills

14: Renewable or Not?

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

SPS3 - Personal, Social, and Technological Perspectives

2 - Common Environmental Issues, Natural Resources Management and Conservation

15: A Few of My Favorite Things

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

1 - Design Technology

15: A Few of My Favorite Things (cont.)

PS1- All living and nonliving things are composed of matter having characteristic properties that distinguish one substance from another (independent of size/amount of substance).

1 - Composition

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

1 – Design Technology

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

3 - Critical Thinking and Systems Thinking

16: Pass the Plants, Please

LS4 - Humans are similar to other species in many ways, and yet are unique among Earth's life forms.

3 - Human Identity

17: People of the Forest

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).

1 - Change

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

1 - Design Technology

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy

1 - Information and Media Literacy

18: Tale of the Sun

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

LS4 - Humans are similar to other species in many ways, and yet are unique among Earth's life forms.
1 - Behavior

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
1 - Design Technology

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation
3 - Science and Technology; Technological Design and Application

19: Viewpoints on the Line

LS4 - Humans are similar to other species in many ways, and yet are unique among Earth's life forms.
1 - Behavior

20: Environmental Exchange Box

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
3 - Natural Selection

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy
8 - Accountability and Adaptability
9 - Social Responsibility

21: Adopt a Tree

LS2 - Energy flows and matter recycles through an ecosystem.
3 - Recycling of Materials

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills
3 - Critical Thinking and Systems Thinking
7 - Self Direction

22: Trees as Habitats

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
3 - Recycling of Materials

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

23: The Fallen Log

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 – Classification
2 – Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
2 - Flow of Energy
3 - Recycling of Materials

23: The Fallen Log (cont.)

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 – Change
3 – Natural Selection

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
4 - Patterns of Change

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

24: Nature's Recyclers

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
2 - Flow of Energy
3 - Recycling of Materials

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations
4 - Representing and Understanding Results of Investigations

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills
4 - Problem Identification, Formulation, and Solution
6 - Interpersonal and Collaborative Skills

25: Birds and Worms

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

25: Birds and Worms (cont.)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
4 - Representing and Understanding Results of Investigations

SPS4 - Science Skills for Information, Communication, and Media Literacy
3 - Critical Thinking and Systems Thinking

26: Dynamic Duos

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
3 - Recycling of Materials

27: Every Tree for Itself

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
2 - Flow of Energy

28: Air Plants

LS2 - Energy flows and matter recycles through an ecosystem.
2 - Flow of Energy

29: Rain Reasons

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
3 - Natural Selection

30: Three Cheers for Trees

None

31: Plant a Tree

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

4 – Career Technical Education Connections

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

2 - Common Environmental Issues, Natural Resources Management and Conservation

32: A Forest of Many Uses

LS2 - Energy flows and matter recycles through an ecosystem.

1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).

1 - Change

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

4 – Career Technical Education Connections

33: Forest Consequences

LS2 - Energy flows and matter recycles through an ecosystem.

1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).

1 - Change

SPS2 - Unifying Concepts of Science

2 - Systems and Energy

33: Forest Consequences (cont.)

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation
3 - Science and Technology; Technological Design and Application

34: Who Works In This Forest?

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
4 – Career Technical Education Connections

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
4 - Career and Technical Education

35: Loving It Too Much

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global): Uses of Earth materials and Environmental Change

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

36: Pollution Search

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
3 - Critical Thinking and Systems Thinking

37: Reduce, Reuse, Recycle

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
4 - Representing and Understanding Results of Investigations

SPS2 - Unifying Concepts of Science
1 - Nature of Science
2 - Systems and Energy

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy

38: Every Drop Counts

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives

2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

4 - Problem Identification, Formulation, and Solution

7 - Self Direction

39: Energy Sleuths

PS2 - Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.

3 - Energy

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives

2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy

1 - Information and Media Literacy

2 - Communication Skills

40: Then and Now

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
4 - Patterns of Change

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

41: How Plants Grow

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
2 - Designing Scientific Investigations
3 - Conducting Scientific Investigations
4 - Representing and Understanding Results of Investigations

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

42: Sunlight and Shades of Green

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
2 - Flow of Energy

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations
5 - Evaluating Scientific Investigations

43: Have Seeds, Will Travel

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification
2 - Living Things and Organization

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

44: Water Wonders

ESS1 -The Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.
1 - Atmosphere, Climate, and Weather
7 - Water

SPS2 - Unifying Concepts of Science
3 - Models and Scale

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

45: Web of Life

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
2 - Flow of Energy
3 - Recycling of Materials

SPS2 - Unifying Concepts of Science
2 - Systems and Energy

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy

46: School Yard Safari

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
2 - Flow of Energy

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

47: Are Vacant Lots Vacant?

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment
3 - Recycling of Materials

47: Are Vacant Lots Vacant? (cont.)

SPS1 - Scientific Inquiry and Critical Thinking Skills
- 1 - Making Observations and Asking Questions
- 3 - Conducting Scientific Investigations
- 4 - Representing and Understanding Results of Investigations

SPS3 – Personal, Social, and Technological Perspectives
- 1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication and Media Literacy
- 2 - Communication Skills

48: Field, Forest, and Stream

LS2 - Energy flows and matter recycles through an ecosystem.
- 1 - Environment
- 3 - Recycling of Materials

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
- 1 - Change
- 3 - Natural Selection

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
- 2 - Tools

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
- 2 - Tools

SPS1 - Scientific Inquiry and Critical Thinking Skills
- 1 - Making Observations and Asking Questions
- 3 - Conducting Scientific Investigations
- 4 - Representing and Understanding Results of Investigations
- 5 - Evaluating Scientific Investigations

SPS3 – Personal, Social, and Technological Perspectives
- 1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy
- 6 - Interpersonal and Collaborative Skills

49: Tropical Treehouse

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
2 - Communication Skills

50: 400-Acre Wood

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills
3 - Critical Thinking and Systems Thinking
6 - Interpersonal and Collaborative Skills

51: Make Your Own Paper

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
1 - Design Technology

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
1 – Design Technology
2 – Tools
3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

SPS1 - Scientific Inquiry and Critical Thinking Skills
3 - Conducting Scientific Investigations

52: A Look At Aluminum

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global)

53: On the Move

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy

3 - Critical Thinking and Systems Thinking

54: I'd Like to Visit a Place Where…

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy

6 - Interpersonal and Collaborative Skills

55: Planning the Ideal Community

None

56: We Can Work It Out

None

57: Democracy in Action

None

58: There Ought to Be A Law

None

59: Power of Print

None

60: Publicize It!

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy 2 - Communication Skills
3 - Critical Thinking and Systems Thinking
6 - Interpersonal and Collaborative Skills

61: The Closer You Look

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

61: The Closer You Look (cont.)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

62: To Be A Tree

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

SPS2 - Unifying Concepts of Science
3 - Models and Scale

63: Tree Factory

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

SPS2 - Unifying Concepts of Science
3 - Models and Scale

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

64: Looking at Leaves

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
1 - Classification

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

64: Looking at Leaves (cont.)

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

65: Bursting Buds

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
4 - Patterns of Change
5 - Form and Function

SPS4 - Science Skills for Information, Communication, and Media Literacy
7 - Self Direction

66: Germinating Giants

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
2 - Living Things and Organization

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
2 - Tools

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations

SPS2 - Unifying Concepts of Science
5 - Form and Function

67: How Big Is Your Tree?

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

1 - Design Technology
2 - Tools
4 – Career Technical Education Connections

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations
4 - Representing and Understanding Results of Investigations

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy

6 - Interpersonal and Collaborative Skills

68: Name That Tree

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

1 - Classification

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication, and Media Literacy

6 - Interpersonal and Collaborative Skills

69: Forest for the Trees

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).

1 - Change

69: Forest for the Trees (cont.)

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

4 – Career Technical Education Connections

SPS4 - Science Skills for Information, Communication, and Media Literacy

6 - Interpersonal and Collaborative Skills

70: Soil Stories

ESS1 -The Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.

2 – Composition and Features

6 – Rock Cycle

SPS1 - Scientific Inquiry and Critical Thinking Skills

1 - Making Observations and Asking Questions

3 - Conducting Scientific Investigations

4 - Representing and Understanding Results of Investigations

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

71: Watch on Wetlands

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills 1 - Making Observations and Asking Questions

3 - Conducting Scientific Investigations

4 - Representing and Understanding Results of Investigations

5 - Evaluating Scientific Investigations

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

2 - Common Environmental Issues, Natural Resources Management and Conservation

71: Watch on Wetlands (cont.)

SPS4 - Science Skills for Information, Communication and Media Literacy
- 2 - Communication Skills
- 3 - Critical Thinking and Systems Thinking
- 5 - Creativity and Intellectual Curiosity
- 6 - Interpersonal and Collaborative Skills
- 9 - Social Responsibility

72: Air We Breathe

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
- 1 - Change

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
- 1 - Design Technology
- 3 – Social Issues (Local and Global): Medical Technology and Biotechnology

SPS1 - Scientific Inquiry and Critical Thinking Skills
- 1 - Making Observations and Asking Questions
- 3 - Conducting Scientific Investigations

SPS3 - Personal, Social, and Technological Perspectives
- 2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
- 2 - Communication Skills
- 5 - Creativity and Intellectual Curiosity

73: Waste Watchers

SPS1 - Scientific Inquiry and Critical Thinking Skills
- 1 - Making Observations and Asking Questions
- 3 - Conducting Scientific Investigations
- 4 - Representing and Understanding Results of Investigations

SPS3 - Personal, Social, and Technological Perspectives
- 2 - Common Environmental Issues, Natural Resources Management and Conservation

73: Waste Watchers (cont.)

SPS4 - Science Skills for Information, Communication, and Media Literacy
4 - Problem Identification, Formulation, and Solution
7 - Self Direction

74: People, Places, Things

None

75: Tipi Talk

SPS4 - Science Skills for Information, Communication, and Media Literacy
3 - Critical Thinking and Systems Thinking

76: Tree Cookies

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

77: Trees in Trouble

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations
4 - Representing and Understanding Results of Investigations

77: Trees in Trouble (cont.)

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

78: Signs of Fall

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS4 -Humans are similar to other species in many ways, and yet are unique among Earth's life forms.
1 - Behavior

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

79: Tree Lifecycle

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).
3 - Reproduction

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 – Science Skills for Information, Communication and Media Literacy
2 - Communication Skills

80: Nothing Succeeds Like Succession

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

80: Nothing Succeeds Like Succession (cont.)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
4 - Patterns of Change

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
2 - Communication Skills
7 - Self Direction

81: Living with Fire

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
1 - Nature of Science

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

82: Resource-Go-Round

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global): Energy, Power, and Transportation and Manufacturing

82: Resource-Go-Round (cont.)

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
2 - Communication Skills

83: A Peek at Packaging

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
4 - Career and Technical Education

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
6 - Interpersonal and Collaborative Skills

84: The Global Climate

LS2 - Energy flows and matter recycles through an ecosystem.
1 - Environment

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 – Change

84: The Global Climate (cont.)

ESS1 -The Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.
1 - Atmosphere, Climate, and Weather

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions

SPS2 - Unifying Concepts of Science
4 - Patterns of Change

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy

85: In the Driver's Seat

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS1 - Scientific Inquiry and Critical Thinking Skills
3 - Conducting Scientific Investigations

SPS3 - Personal, Social, and Technological Perspectives
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
7 - Self Direction

86: Our Changing World

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

86: Our Changing World (cont.)

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global)

SPS2 - Unifying Concepts of Science

5 - Form and Function

SPS3 – Personal, Social, and Technological Perspectives

1 - Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

3 - Critical Thinking and Systems Thinking

87: Earth Manners

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local and Global)

SPS3 - Personal, Social, and Technological Perspectives

2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy

2 - Communication Skills

6 - Interpersonal and Collaborative Skills

88: Life on the Edge

LS1 - All living organisms have identifiable structures and characteristics that allow for survival (organisms, populations, & species).

2 - Living Things and Organization

SPS3 - Personal, Social, and Technological Perspectives

2 - Common Environmental Issues, Natural Resources Management and Conservation

88: Life on the Edge (cont.)

SPS4 - Science Skills for Information, Communication, and Media Literacy
- 1 - Information and Media Literacy
- 2 - Communication Skills
- 5 - Creativity and Intellectual Curiosity
- 6 - Interpersonal and Collaborative Skills

89: Trees for Many Reasons

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
- 1 - Change

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
- 3 – Social Issues (Local and Global)

SPS3 - Personal, Social, and Technological Perspectives
- 2 - Common Environmental Issues, Natural Resources Management and Conservation

90: Native Ways

SPS3 - Personal, Social, and Technological Perspectives
- 2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
- 2 - Communication Skills

91: In the Good Old Days

LS4 -Humans are similar to other species in many ways, and yet are unique among Earth's life forms.
- 1 - Behavior

SPS2 - Unifying Concepts of Science
- 1 - Nature of Science

91: In the Good Old Days (cont.)

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
2 - Communication Skills
5 - Creativity and Intellectual Curiosity

92: A Look at Lifestyles

LS5 - The growth of scientific knowledge in Life Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
1 - Design Technology

ESS1 -The Earth and Earth materials, as we know them today, have developed over long periods of time, through constant change processes.
2 – Composition and Features

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global)

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
6 - Interpersonal and Collaborative Skills

93: Paper Civilizations

None

94: By the Rivers of Babylon

LS3 - Groups of organisms show evidence of change over time (e.g. evolution, natural selection, structures, behaviors, and biochemistry).
1 - Change

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
1 - Information and Media Literacy
2 - Communication Skills
5 - Creativity and Intellectual Curiosity
6 - Interpersonal and Collaborative Skills

95: Did You Notice?

None

96: Improve Your Place

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 - Making Observations and Asking Questions
3 - Conducting Scientific Investigations

SPS3 – Personal, Social, and Technological Perspectives
1 - Collaboration in Scientific Endeavors
2 - Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication, and Media Literacy
3 - Critical Thinking and Systems Thinking
4 - Problem Identification, Formulation, and Solution
6 - Interpersonal and Collaborative Skills

Energy & Society Kit

1: Energy Detectives

PS2 - Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.

3 – Energy

SPS3 - Personal, Social, and Technological Perspectives

2 – Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy

2 – Communication Skills

7 – Self Direction

2: May The Source Be With You

PS2 - Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.

3 – Energy

SPS3 - Personal, Social, and Technological Perspectives

1 – Collaboration in Scientific Endeavors

2 – Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy

2 – Communication Skills

5 – Creativity and Intellectual Curiosity

6 – Interpersonal and Collaborative Skills

3:Energy Chains

PS2 - Energy is necessary for change to occur in matter. Energy can be stored, transferred and transformed, but cannot be destroyed.

2 – Conservation

3 – Energy

PS4 - The growth of scientific knowledge in Physical Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.

3 – Social Issues (Local & Global): Energy, Power, And Transportation & Manufacturing

3:Energy Chains (cont.)

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 – Making Observations and asking questions
2 – Designing scientific investigations

SPS3 - Personal, Social, and Technological Perspectives
1 – Collaboration in Scientific Endeavors

SPS4 - Science Skills for Information, Communication and Media Literacy
3 – Critical Thinking and Systems Thinking
6 – Interpersonal and Collaborative Skills

4: What Powers the Move?

NONE

5: In the Driver's Seat

ESS4 - The growth of scientific knowledge in Earth Space Science has been advanced through the development of technology and is used (alone or in combination with other sciences) to identify, understand and solve local and global issues.
3 – Social Issues (Local and Global): Uses of Earth Materials & Environmental Change

SPS1 - Scientific Inquiry and Critical Thinking Skills
1 – Making Observations and Asking Questions

SPS3 - Personal, Social, and Technological Perspectives
2 – Common Environmental Issues, Natural Resources Management and Conservation

SPS4 - Science Skills for Information, Communication and Media Literacy
7 – Self Direction

6: Energy Challenge Game

SPS4 - Science Skills for Information, Communication and Media Literacy
2 – Communication Skills
6 – Interpersonal and Collaborative Skills