

A Correlation of
Population Connection Materials

from

Nuestro Mundo, Nuestro Futuro
(Our World, Our Future)

to

California State Board of Education
Content Standards

Organized by:

1. Subject

2. Grade

3. Standard

4. Population Connection Activity

Table of Contents

English Language Development

<i>Grades Three Through Five</i>	4
<i>Grades Six Through Eight</i>	4
<i>Grades Nine Through Twelve</i>	7

History and Social Science

<i>First Grade</i>	10
<i>Second Grade</i>	10
<i>Third Grade</i>	10
<i>Fourth Grade</i>	10
<i>Kindergarten Through Grade Five</i>	10
<i>Eighth Grade</i>	11
<i>Eleventh Grade</i>	11
<i>Twelfth Grade</i>	12
<i>Grades Nine Through Twelve</i>	12

Language Arts

<i>Third Grade</i>	13
<i>Fourth Grade</i>	13
<i>Fifth Grade</i>	13
<i>Sixth Grade</i>	14

Mathematics

<i>Kindergarten</i>	15
<i>First Grade</i>	15
<i>Second Grade</i>	15
<i>Third Grade</i>	15
<i>Fourth Grade</i>	16
<i>Fifth Grade</i>	16
<i>Sixth Grade</i>	17
<i>Seventh Grade</i>	18
<i>Grades Eight Through Twelve</i>	18

Science

<i>Kindergarten</i>	19
<i>Second Grade</i>	19
<i>Third Grade</i>	19
<i>Fourth Grade</i>	20
<i>Fifth Grade</i>	20
<i>Sixth Grade: Focus on Earth Sciences</i>	21
<i>Seventh Grade: Focus on Life Sciences</i>	21
<i>Eighth Grade: Focus on Physical Sciences</i>	21
<i>High School:</i>	
<i>Biology/Life Sciences</i>	22
<i>Investigation and Experimentation</i>	22

English Language Development

Grade Three to Grade Five

(ELD.3-5.Beginning) Listening and Speaking: Comprehension

Answer simple questions with one- to two-word responses.
If the World Was an Apple
Life and Death
Timber!

(ELD.3-5.Early Intermediate) Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.
If the World Was an Apple
Timber!

(ELD.3-5.Intermediate) Reading: Vocabulary and Concept Development

Use content-related vocabulary in discussions and reading.
If the World Was an Apple

(ELD.3-5.Beginning) Reading: Comprehension

Understand and follow simple one-step directions for classroom activities.
If the World Was an Apple
Life and Death
Timber!

(ELD.3-5.Early Intermediate) Reading: Comprehension

Understand and follow simple two-step directions for classroom activities.
If the World Was an Apple
Life and Death
Timber!

(ELD.3-5.Intermediate) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Understand and follow some multiple-step directions for classroom-related activities.
Timber!

Grade Six to Grade Eight

(ELD.6-8.Beginning) Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.
If the World Was an Apple
Environmental Dilemmas
Everything Is Connected
Maria's Education
The More The Merrier?
Timber!

(ELD.6-8.Early Intermediate) Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.

If the World Was an Apple
Environmental Dilemmas
Everything Is Connected
Maria's Education
The More The Merrier?
Timber!

(ELD.6-8.Early Intermediate) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Prepare and deliver short oral presentations.

Environmental Dilemmas

(ELD.6-8.Intermediate) Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.

Environmental Dilemmas

(ELD.6-8.Intermediate) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.

Environmental Dilemmas

(ELD.6-8.Early Advanced) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in and initiate more extended social conversations with peers and adults on unfamiliar topics by asking and answering questions and restating and soliciting information.

Environmental Dilemmas

Respond to messages by asking questions, challenging statements, or offering examples that affirm the message.

Environmental Dilemmas

(ELD.6-8.Advanced) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Environmental Dilemmas

(ELD.6-8.Early Intermediate) Reading: Vocabulary and Concept Development

Read simple paragraphs and passages independently.

People Count: Facing the Population Challenge

(ELD.6-8.Intermediate) Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of both academic and social vocabulary to read independently.

People Count: Facing the Population Challenge

(ELD.6-8.Early Advanced) Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

People Count: Facing the Population Challenge

(ELD.6-8.Advanced) Reading: Vocabulary and Concept Development

Apply knowledge of academic and social vocabulary to achieve independent reading.

People Count: Facing the Population Challenge

(ELD.6-8.Beginning) Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Environmental Dilemmas

Everything Is Connected

Maria's Education

The More The Merrier?

Timber!

(ELD.6-8.Early Intermediate) Reading: Comprehension

Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

People Count: Facing the Population Challenge

(ELD.6-8.Early Intermediate) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Read text and orally identify the main ideas and details of informational materials, literary text, and text in content areas by using simple sentences.

People Count: Facing the Population Challenge

(ELD.6-8.Intermediate) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Read text and use detailed sentences to explain orally the main ideas and details of informational text, literary text, and text in content areas.

People Count: Facing the Population Challenge

(ELD.6-8.Early Advanced) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Identify and explain the main ideas and critical details of informational materials, literary texts, and texts in content areas.

People Count: Facing the Population Challenge

(ELD.6-8.Advanced) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Identify and explain the main ideas and critical details of informational materials, literary text, and text in content areas.

People Count: Facing the Population Challenge

(ELD.6-8.Intermediate) Reading: Narrative Analysis of Grade-Level-Appropriate Text

Use expanded vocabulary and descriptive words in oral and written responses to simple texts.

People Count: Facing the Population Challenge

(ELD.6-8.Beginning) Writing: Organization and Focus

Create simple sentences or phrases with some assistance.
Everything Is Connected

(ELD.6-8.Early Intermediate) Writing: Organization and Focus

Collect information from various sources (e.g., dictionary, library books, research materials) and take notes on a given topic.
The More The Merrier?

Grade Nine to Grade Twelve

(ELD.9-12.Beginning) Listening and Speaking: Comprehension

Ask and answer questions by using simple sentences or phrases.
Environmental Dilemmas
Everything Is Connected
If the World Was an Apple
Maria's Education

(ELD.9-12.Beginning) Listening and Speaking: Analysis and Evaluation of Oral and Media Communications and Comprehension

Respond with simple words or phrases to questions about simple written texts.
Maria's Education

(ELD.9-12.Early Intermediate) Listening and Speaking: Comprehension

Ask and answer questions by using phrases or simple sentences.
Environmental Dilemmas
If the World Was an Apple
Maria's Education

(ELD.9-12.Intermediate) Listening and Speaking: Comprehension

Respond to messages by asking simple questions or by briefly restating the message.
Environmental Dilemmas

(ELD.9-12.Intermediate) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in social conversations with peers and adults on familiar topics by asking and answering questions and soliciting information.
Environmental Dilemmas

(ELD.9-12.Early Advanced) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Participate in and initiate more extended social conversations with peers and adults on unfamiliar topics by asking and answering questions and restating and soliciting information.
Environmental Dilemmas

(ELD.9-12.Advanced) Listening and Speaking: Comprehension and Organization and Delivery of Oral Communication

Consistently use appropriate ways of speaking and writing that vary according to the purpose, audience, and subject matter.

Environmental Dilemmas

(ELD.9-12.Early Intermediate) Reading: Vocabulary and Concept Development

Read simple paragraphs and passages independently.

Maria's Education

(ELD.9-12.Intermediate) Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of both academic and social vocabulary to read independently.

Maria's Education

(ELD.9-12.Early Advanced) Reading: Vocabulary and Concept Development

Use decoding skills and knowledge of academic and social vocabulary to begin independent reading.

Maria's Education

(ELD.9-12.Advanced) Reading: Vocabulary and Concept Development

Apply knowledge of academic and social vocabulary to achieve independent reading.

Maria's Education

(ELD.9-12.Beginning) Reading: Comprehension

Understand and follow simple multiple-step oral directions for classroom or work-related activities.

Environmental Dilemmas

If the World Was an Apple

Maria's Education

(ELD.9-12.Early Intermediate) Reading: Comprehension

Read and orally respond to simple literary texts and texts in content areas by using simple sentences to answer factual comprehension questions.

Maria's Education

(ELD.9-12.Early Advanced) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary texts, and texts in content areas.

Maria's Education

(ELD.9-12.Advanced) Reading: Comprehension and Analysis of Grade Level-Appropriate Text

Apply knowledge of language to achieve comprehension of informational materials, literary text, and text in content areas.

Maria's Education

(ELD.9-12.Early Intermediate) Reading: Narrative Analysis of Grade-Level-Appropriate Text and Literary Criticism

Describe briefly in simple sentences a character according to what he or she does in a familiar narration, dialogue, or drama.

Maria's Education

(ELD.9-12.Intermediate) Reading: Narrative Analysis of Grade-Level-Appropriate Text

Use expanded vocabulary and descriptive words in oral and written responses to simple texts.
Maria's Education

History and Social Science

Grade One

(Social Science.1.2) Students compare and contrast the absolute and relative locations of places and people and describe the physical and/ or human characteristics of places.

4. Describe how location, weather, and physical environment affect the way people live, including the effects on their food, clothing, shelter, transportation, and recreation.

If the World Was an Apple

Grade Two

(Social Science.2.4) Students understand basic economic concepts and their individual roles in the economy and demonstrate basic economic reasoning skills.

3. Understand how limits on resources affect production and consumption (what to produce and what to consume).

If the World Was an Apple

Grade Three

(Social Science.3.4) Students understand the role of rules and laws in our daily lives and the basic structure of the U.S. government.

2. Discuss the importance of public virtue and the role of citizens, including how to participate in a classroom, in the community, and in civic life.

If the World Was an Apple

Timber!

(Social Science.3.5) Students demonstrate basic economic reasoning skills and an understanding of the economy of the local region.

1. Describe the ways in which local producers have used and are using natural resources, human resources, and capital resources to produce goods and services in the past and the present.

If the World Was an Apple

Timber!

Grade Four

(Social Science.4.4) Students explain how California became an agricultural and industrial power, tracing the transformation of the California economy and its political and cultural development since the 1850s.

4. Describe rapid American immigration, internal migration, settlement, and the growth of towns and cities (e.g., Los Angeles).

If the World Was an Apple

Grades K to Five

(Social Science.K-5) Chronological and Spatial Thinking

4. Students use map and globe skills to determine the absolute locations of places and interpret information available through a map's or globe's legend, scale, and symbolic representations.

If the World Was an Apple

(Social Science.K-5) Historical Interpretation

2. Students identify the human and physical characteristics of the places they are studying and explain how those features form the unique character of those places.

If the World Was an Apple

Life and Death

Grade Eight

(Social Science.8.6) Students analyze the divergent paths of the American people from 1800 to the mid-1800s and the challenges they faced, with emphasis on the Northeast.

1. Discuss the influence of industrialization and technological developments on the region, including human modification of the landscape and how physical geography shaped human actions (e.g., growth of cities, deforestation, farming, mineral extraction).

If the World Was an Apple

Timber!

People Count: Facing the Population Challenge

(Social Science.8.12) Students analyze the transformation of the American economy and the changing social and political conditions in the United States in response to the Industrial Revolution.

5. Examine the location and effects of urbanization, renewed immigration, and industrialization (e.g., the effects on social fabric of cities, wealth and economic opportunity, the conservation movement).

Everything Is Connected

(Social Science.6-8) Historical Interpretation

2. Students understand and distinguish cause, effect, sequence, and correlation in historical events, including the long- and short-term causal relations.

Everything Is Connected

People Count: Facing the Population Challenge

3. Students explain the sources of historical continuity and how the combination of ideas and events explains the emergence of new patterns.

People Count: Facing the Population Challenge

Grade Eleven

(Social Science.11.2) Students analyze the relationship among the rise of industrialization, large-scale rural-to-urban migration, and massive immigration from Southern and Eastern Europe.

2. Describe the changing landscape, including the growth of cities linked by industry and trade, and the development of cities divided according to race, ethnicity, and class.

If the World Was an Apple

(Social Science.11.5) Students analyze the major political, social, economic, technological, and cultural developments of the 1920s.

7. Discuss the rise of mass production techniques, the growth of cities, the impact of new technologies (e.g., the automobile, electricity), and the resulting prosperity and effect on the American landscape.

If the World Was an Apple

(Social Science.11.8) Students analyze the economic boom and social transformation of post-World War II America.

7. Describe the effects on society and the economy of technological developments since 1945, including the computer revolution, changes in communication, advances in medicine, and improvements in agricultural technology.

If the World Was an Apple

(Social Science.11.11) Students analyze the major social problems and domestic policy issues in contemporary American society.

3. Describe the changing roles of women in society as reflected in the entry of more women into the labor force and the changing family structure.

Maria's Education

Grade Twelve

(Social Science.12) Principles of Economics

12.1 Students understand common economic terms and concepts and economic reasoning.

1. Examine the causal relationship between scarcity and the need for choices.

Everything Is Connected

If the World Was an Apple

4. Evaluate the role of private property as an incentive in conserving and improving scarce resources, including renewable and nonrenewable natural resources.

Environmental Dilemmas

Grades Nine to Twelve

(Social Science.9-12) Chronological and Spatial Thinking

4. Students relate current events to the physical and human characteristics of places and regions.

If the World Was an Apple

(Social Science.9-12) Historical Interpretation

5. Students analyze human modifications of landscapes and examine the resulting environmental policy issues.

Everything Is Connected

If the World Was an Apple

Language Arts

Grade Three

(Language Arts.3) Reading

2.0. Reading Comprehension: Students read and understand grade-level-appropriate material. They draw upon a variety of comprehension strategies as needed (e.g., generating and responding to essential questions, making predictions, comparing information from several sources). The selections in Recommended Readings in Literature, Kindergarten Through Grade Eight illustrate the quality and complexity of the materials to be read by students. In addition to their regular school reading, by grade four, students read one-half million words annually, including a good representation of grade-level-appropriate narrative and expository text (e.g., classic and contemporary literature, magazines, newspapers, online information). In grade three, students make substantial progress toward this goal.

Comprehension and Analysis of Grade-Level-Appropriate Text

- 2.7. Follow simple multiple-step written instructions (e.g., how to assemble a product or play a board game).
Timber!

(Language Arts.3) Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.3. Respond to questions with appropriate elaboration.
If the World Was an Apple
Life and Death
Timber!

Grade Four

(Language Arts.4) Written and Oral English Language Conventions

1.0. Written and Oral English Language Conventions: Students write and speak with a command of standard English conventions appropriate to this grade level.

Sentence Structure

- 1.1. Use simple and compound sentences in writing and speaking.
If the World Was an Apple
Life and Death
Timber!

(Language Arts.4) Listening and Speaking

1.0. Listening and Speaking Strategies: Students listen critically and respond appropriately to oral communication. They speak in a manner that guides the listener to understand important ideas by using proper phrasing, pitch, and modulation.

Comprehension

- 1.1. Ask thoughtful questions and respond to relevant questions with appropriate elaboration in oral settings.
If the World Was an Apple
Life and Death
Timber!

Grade Five

(Language Arts.5) Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.1. Ask questions that seek information not already discussed.

If the World Was an Apple

Grade Six

(Language Arts.6) Reading

1.0. Word Analysis, Fluency, and Systematic Vocabulary Development: Students use their knowledge of word origins and word relationships, as well as historical and literary context clues, to determine the meaning of specialized vocabulary and to understand the precise meaning of grade-level-appropriate words.

Word Recognition

1.1. Read aloud narrative and expository text fluently and accurately and with appropriate pacing, intonation, and expression.

Environmental Dilemmas

Maria's Education

People Count: Facing the Population Challenge

(Language Arts.6) Writing

1.0. Writing Strategies: Students write clear, coherent, and focused essays. The writing exhibits students' awareness of the audience and purpose. Essays contain formal introductions, supporting evidence, and conclusions. Students progress through the stages of the writing process as needed.

Organization and Focus

1.3. Use a variety of effective and coherent organizational patterns, including comparison and contrast; organization by categories; and arrangement by spatial order, order of importance, or climactic order.

Environmental Dilemmas

(Language Arts.6) Listening and Speaking

1.0. Listening and Speaking Strategies: Students deliver focused, coherent presentations that convey ideas clearly and relate to the background and interests of the audience. They evaluate the content of oral communication.

Comprehension

1.3. Restate and execute multiple-step oral instructions and directions.

Environmental Dilemmas

Everything Is Connected

Maria's Education

The More The Merrier?

Timber!

Mathematics

Kindergarten

(Math.K) Statistics, Data Analysis, and Probability

1.0 Students collect information about objects and events in their environment:

1.1 Pose information questions; collect data; and record the results using objects, pictures, and picture graphs.
Life and Death

(Math.K) Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools and strategies, such as manipulatives or sketches, to model problems.
Life and Death

Grade One

(Math.1) Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools and strategies, such as manipulatives or sketches, to model problems.
If the World Was an Apple
Life and Death

Grade Two

(Math.2) Number Sense

4.0 Students understand that fractions and decimals may refer to parts of a set and parts of a whole:

4.1 Recognize, name, and compare unit fractions from $\frac{1}{12}$ to $\frac{1}{2}$.
If the World Was an Apple
Life and Death

4.2 Recognize fractions of a whole and parts of a group (e.g., one-fourth of a pie, two-thirds of 15 balls).
If the World Was an Apple
Life and Death

4.3 Know that when all fractional parts are included, such as four-fourths, the result is equal to the whole and to one.
If the World Was an Apple

(Math.2) Mathematical Reasoning

1.0 Students make decisions about how to set up a problem:

1.2 Use tools, such as manipulatives or sketches, to model problems.
If the World Was an Apple
Life and Death
Timber!

Grade Three

(Math.3) Number Sense

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.1 Find the sum or difference of two whole numbers between 0 and 10,000.
Timber!

(Math.3) Algebra and Functions

2.0 Students represent simple functional relationships:

2.2 Extend and recognize a linear pattern by its rules (e.g., the number of legs on a given number of horses may be calculated by counting by 4s or by multiplying the number of horses by 4).
Timber!

(Math.3) Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
If the World Was an Apple
Life and Death
Timber!

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.
Timber!

Grade Four

(Math.4) Number Sense

1.0 Students understand the place value of whole numbers and decimals to two decimal places and how whole numbers and decimals relate to simple fractions. Students use the concepts of negative numbers:

1.5 Explain different interpretations of fractions, for example, parts of a whole, parts of a set, and division of whole numbers by whole numbers; explain equivalents of fractions (see Standard 4.0).
If the World Was an Apple

1.7 Write the fraction represented by a drawing of parts of a figure; represent a given fraction by using drawings; and relate a fraction to a simple decimal on a number line
If the World Was an Apple

(Math.4) Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.
If the World Was an Apple
Life and Death
Timber!

Grade Five

(Math.5) Number Sense

2.0 Students perform calculations and solve problems involving addition, subtraction, and simple multiplication and division of fractions and decimals:

2.1 Add, subtract, multiply, and divide with decimals; add with negative integers; subtract positive integers from negative integers; and verify the reasonableness of the results.

If the World Was an Apple
Life and Death
Timber!

(Math.5) Algebra and Functions

1.0 Students use variables in simple expressions, compute the value of the expression for specific values of the variable, and plot and interpret the results:

1.1 Use information taken from a graph or equation to answer questions about a problem situation.

If the World Was an Apple
Timber!

(Math.5) Statistics, Data Analysis, and Probability

1.0 Students display, analyze, compare, and interpret different data sets, including data sets of different sizes:

1.3 Use fractions and percentages to compare data sets of different sizes.

If the World Was an Apple

(Math.5) Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.3 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

If the World Was an Apple
Life and Death
Timber!

2.4 Express the solution clearly and logically by using the appropriate mathematical notation and terms and clear language; support solutions with evidence in both verbal and symbolic work.

If the World Was an Apple
Timber!

2.5 Indicate the relative advantages of exact and approximate solutions to problems and give answers to a specified degree of accuracy.

Life and Death

(Math.5) Mathematical Reasoning

3.0 Students move beyond a particular problem by generalizing to other situations:

3.3 Develop generalizations of the results obtained and apply them in other circumstances.

Timber!

Grade Six

(Math.6) Number Sense

1.0 Students compare and order positive and negative fractions, decimals, and mixed numbers. Students solve problems involving fractions, ratios, proportions, and percentages:

1.2 Interpret and use ratios in different contexts (e.g., batting averages, miles per hour) to show the relative sizes of two quantities, using appropriate notations (a/b , a to b , $a:b$).

Life and Death
Timber!

2.0 Students calculate and solve problems involving addition, subtraction, multiplication, and division:

2.3 Solve addition, subtraction, multiplication, and division problems, including those arising in concrete situations that use positive and negative integers and combinations of these operations.

Timber!

(Math.6) Mathematical Reasoning

2.0 Students use strategies, skills, and concepts in finding solutions:

2.4 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

If the World Was an Apple

Timber!

2.7 Make precise calculations and check the validity of the results from the context of the problem.

Timber!

Grade Seven

(Math.7) Mathematical Reasoning

1.0 Students make decisions about how to approach problems:

1.2 Formulate and justify mathematical conjectures based on a general description of the mathematical question or problem posed.

Everything Is Connected

2.0 Students use strategies, skills, and concepts in finding solutions:

2.5 Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning.

If the World Was an Apple

Timber!

2.8 Make precise calculations and check the validity of the results from the context of the problem.

Timber!

Grades Eight to Twelve

8.0 Students organize and describe distributions of data by using a number of different methods, including frequency tables, histograms, standard line and bar graphs, stem-and-leaf displays, scatterplots, and box-and-whisker plots.

Timber!

Science

Kindergarten

(Science.K) 3. Earth Sciences. Earth is composed of land, air, and water. As a basis for understanding this concept:

c. Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

If the World Was an Apple

(Science.K) 4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Communicate observations orally and through drawings.

If the World Was an Apple

Grade Two

(Science.2) 3. Earth Sciences. Earth is made of materials that have distinct properties and provide resources for human activities. As a basis for understanding this concept:

e. Students know rock, water, plants, and soil provide many resources, including food, fuel, and building materials, that humans use.

If the World Was an Apple

Timber!

(Science.2) 4. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

a. Make predictions based on observed patterns and not random guessing.

Life and Death

Timber!

g. Follow oral instructions for a scientific investigation.

If the World Was an Apple

Life and Death

Timber!

Grade Three

(Science.3) 3. Life Sciences. Adaptations in physical structure or behavior may improve an organism's chance for survival. As a basis for understanding this concept:

c. Students know living things cause changes in the environment in which they live: some of these changes are detrimental to the organism or other organisms, and some are beneficial.

If the World Was an Apple

Life and Death

Timber!

(Science.3) 5. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Use numerical data in describing and comparing objects, events, and measurements.
If the World Was an Apple
Life and Death
Timber!
- d. Predict the outcome of a simple investigation and compare the result with the prediction.
Life and Death
Timber!
- e. Collect data in an investigation and analyze those data to develop a logical conclusion.
If the World Was an Apple
Life and Death
Timber!

Grade Four

(Science.4) 3. Life Sciences. Living organisms depend on one another and on their environment for survival. As a basis for understanding this concept:

- c. Students know many plants depend on animals for pollination and seed dispersal, and animals depend on plants for food and shelter.
Timber!

(Science.4) 6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- c. Formulate and justify predictions based on cause-and-effect relationships.
Life and Death
Timber!
- f. Follow a set of written instructions for a scientific investigation.
Timber!

Grade Five

(Science.5) 6. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- g. Record data by using appropriate graphic representations (including charts, graphs, and labeled diagrams) and make inferences based on those data.
If the World Was an Apple
Timber!
- h. Draw conclusions from scientific evidence and indicate whether further information is needed to support a specific conclusion.
If the World Was an Apple
Life and Death
Timber!

Grade Six: Focus on Earth Sciences

(Science.6) 5. Ecology (Life Sciences). Organisms in ecosystems exchange energy and nutrients among themselves and with the environment. As a basis for understanding this concept:

e. Students know the number and types of organisms an ecosystem can support depends on the resources available and on abiotic factors, such as quantities of light and water, a range of temperatures, and soil composition.

Life and Death
Timber!

(Science.6) 6. Resources. Sources of energy and materials differ in amounts, distribution, usefulness, and the time required for their formation. As a basis for understanding this concept:

b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife, and forests, and know how to classify them as renewable or nonrenewable.

If the World Was an Apple
Timber!

(Science.6) 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

b. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

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c. Construct appropriate graphs from data and develop qualitative statements about the relationships between variables.

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e. Recognize whether evidence is consistent with a proposed explanation.

Environmental Dilemmas

Grade Seven: Focus on Life Sciences

(Science.7) 7. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

a. Select and use appropriate tools and technology (including calculators, computers, balances, spring scales, microscopes, and binoculars) to perform tests, collect data, and display data.

Life and Death
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Grade Eight: Focus on Physical Sciences

(Science.8) 9. Investigation and Experimentation. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

e. Construct appropriate graphs from data and develop quantitative statements about the relationships between variables.

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g. Distinguish between linear and nonlinear relationships on a graph of data.

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Grades Nine to Twelve: Biology/Life Sciences

6. Ecology. Stability in an ecosystem is a balance between competing effects. As a basis for understanding this concept:

b. Students know how to analyze changes in an ecosystem resulting from changes in climate, human activity, introduction of nonnative species, or changes in population size.

Everything Is Connected.

Grades Nine to Twelve: Investigation and Experimentation

1. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other four strands, students should develop their own questions and perform investigations. Students will:

l. Analyze situations and solve problems that require combining and applying concepts from more than one area of science.

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Environmental Dilemmas

Everything Is Connected

m. Investigate a science-based societal issue by researching the literature, analyzing data, and communicating the findings. Examples of issues include irradiation of food, cloning of animals by somatic cell nuclear transfer, choice of energy sources, and land and water use decisions in California.

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Environmental Dilemmas

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