

A Correlation of
Population Connection Materials

from

**Nuestro Mundo, Nuestro Futuro
(Our World, Our Future):
*Bilingual Activities on Population
and the Environment***

to

Minnesota Academic Standards

Organized by:

1. Grade

2. Subject

3. Standard

4. Population Connection Activity

Table of Contents

Kindergarten to Grade 3	
<i>History and Social Studies</i>	3
Grade 3	
<i>Language Arts</i>	4
Grade 4	
<i>Language Arts</i>	5
<i>Mathematics</i>	5
<i>Science</i>	6
Grade 4 to Grade 8	
<i>History and Social Studies</i>	8
Grade 5	
<i>Language Arts</i>	11
<i>Mathematics</i>	11
<i>Science</i>	12
Grade 6	
<i>Language Arts</i>	13
<i>Mathematics</i>	13
<i>Science</i>	14
Grade 7	
<i>Language Arts</i>	15
<i>Mathematics</i>	15
<i>Science</i>	15
Grade 8	
<i>Mathematics</i>	17
<i>Science</i>	17
Grade 9 to Grade 12	
<i>Social Studies</i>	19
<i>Science</i>	19

Kindergarten to Grade 3

Social Studies

I. U.S. History

A. Family Life Today and In The Past:

The student will understand how families live today and in earlier times, recognizing that some aspects change over time while others stay the same.

3. Students will compare technologies from earlier times and today, and identify the impact of invention on historical change.

Life and Death

III. World History

A. Family Life Today and in the Past:

The student will understand how families live today and in earlier times, recognizing that some aspects change over time while others stay the same.

3. Students will compare technologies from earlier times and today, and identify the impact of invention on historical change.

Life and Death

V. Geography

A. Concepts of Location:

The student will use directional and positional words to locate and describe people, places and things.

2. Students will use maps and globes to locate places referenced in stories and real life situations.

If the World Was an Apple

VI. Economics

A. Economic Choices:

The student will understand that economic choices are necessary in life.

3. Students will understand and explain that the concept of scarcity means that one cannot have all the goods and services that one wants.

If the World Was an Apple

Timber!

4. Students will give examples of tradeoffs (opportunity costs).

If the World Was an Apple

B. Producers and Consumers:

The student will understand the relationship between producers and consumers in regard to goods and services.

1. Students will distinguish between producers and consumers and between goods and services.

If the World Was an Apple

Timber!

2. Students will recognize and explain that natural resources, human resources, and human-made resources are used in the production of goods and services.

If the World Was an Apple

Timber!

Grade 3

Language Arts

I. Reading And Literature

B. Vocabulary Expansion:

The student will use a variety of strategies to expand reading, listening and speaking vocabularies.

1. Acquire, understand and use new vocabulary through explicit instruction and independent reading.
If the World Was an Apple
Life and Death

III. Speaking, Listening And Viewing

A. Speaking and Listening:

The student will demonstrate understanding and communicate effectively through listening and speaking.

2. Demonstrate active listening and comprehension.
If the World Was an Apple
Life and Death
Timber!
3. Follow multi-step oral directions.
Life and Death
Timber!

Grade 4

Language Arts

I. Reading And Literature

B. Vocabulary Expansion:

The student will use a variety of strategies to expand reading, listening and speaking vocabularies.

1. Acquire, understand and use new vocabulary through explicit instruction and independent reading.
If the World Was an Apple
Life and Death

III. Speaking, Listening And Viewing

A. Speaking and Listening:

The student will demonstrate understanding and communicate effectively through listening and speaking.

2. Demonstrate active listening and comprehension.
If the World Was an Apple
Life and Death
Timber!

Mathematics

I. Mathematical Reasoning

Apply skills of mathematical representation, communication and reasoning throughout the remaining four content strands.

1. Communicate, reason and represent situations mathematically.
If the World Was an Apple
Life and Death
Timber!

5. Express a written problem in suitable mathematical language, solve the problem and interpret the result in the original context.
Timber!

6. Support mathematical results using pictures, numbers and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.
If the World Was an Apple
Life and Death
Timber!

II. Number Sense, Computation, And Operations

A. Number Sense:

Represent whole numbers in various ways to quantify information and to solve real-world and mathematical problems. Understand the concept of fractions and decimals.

4. Use rounding and estimation with whole numbers to solve real-world and mathematical problems.
Life and Death

II. Number Sense, Computation, And Operations

B. Computation and Operation:

Compute fluently and make reasonable estimates with whole numbers in real-world and mathematical problems. Understand the meanings of arithmetic operations and how they relate to one another.

1. Use addition and subtraction of multi-digit whole numbers to solve multi-step real-world and mathematical problems.

Timber!

2. Add up to three whole numbers containing up to three digits each, without a calculator.

Timber!

5. Use multiplication and division of whole numbers to solve simple real-world and mathematical problems.

Life and Death

Timber!

III. Patterns, Functions, And Algebra

A. Patterns and Functions:

Understand and describe patterns in tables and graphs.

1. Examine and describe patterns in tables and graphs.

If the World Was an Apple

Timber!

IV. Data Analysis, Statistics And Probability

A. Data and Statistics:

Represent and interpret data in real-world and mathematical problems.

1. Collect data using observations or surveys and represent the data with tables and graphs with labeling.

Timber!

Science

I. History And Nature Of Science

A. Scientific World View:

The student will understand how science is used to investigate interactions between people and the natural world.

1. The student will explore the uses and effects of science in our interaction with the natural world.

If the World Was an Apple

Life and Death

2. The student will discuss the responsible use of science.

If the World Was an Apple

Life and Death

Timber!

3. The student will recognize the impact of scientific and technological activities on the natural world.

If the World Was an Apple

Timber!

B. Scientific Inquiry:

The student will participate in a controlled scientific investigation.

2. The student will collect, organize, analyze and present data from a controlled experiment.

If the World Was an Apple

Life and Death

Timber!

III. Earth And Space Science

A. Earth Structure and Processes:

The student will investigate the impact humans have on the environment.

1. The student will identify and investigate environmental issues and potential solutions.
If the World Was an Apple
Life and Death
Timber!

Grade 4 to Grade 8

Social Studies

I. U.S. History

E. Growth and Westward Expansion, 1801-1861:

The student will demonstrate knowledge of western expansion, conflict, and reform in America.

2. Students will analyze the impact of inventions and technologies on life in America, including the cotton gin, the steamboat, and the telegraph.

Life and Death

People Count: Facing the Population Challenge

G. Reshaping the Nation and the Emergence of Modern America, 1877-1916:

The student will analyze the transformation of the American economy and the changing social and political conditions in response to the Industrial Revolution.

1. Students will identify and understand the reasons for the increase in immigration, growth of cities, new inventions, and political challenges to American government arising from the industrial revolution, and analyze their impact.

People Count: Facing the Population Challenge

V. Geography

B. Maps and Globes:

The student will use maps and globes to demonstrate specific and increasingly complex geographic knowledge.

1. Students will use political and thematic maps to locate major physical and cultural regions of the world and ancient civilizations studied.

If the World Was an Apple

B. Maps and Globes:

The student will make and use maps to acquire, process, and report on the spatial organization of people and places on Earth.

1. Students will create a variety of maps to scale.

If the World Was an Apple

C. Physical Features and Processes:

The student will identify and locate geographic features associated with the development of the United States.

1. Students will identify physical features and analyze their impact as either hindering or promoting settlement, establishment of cities and states, and economic development in the United States.

If the World Was an Apple

C. Physical Features and Processes:

The student will identify physical characteristics of places and use this knowledge to define regions, their relationships among regions, and their patterns of change.

2. Students will describe physical systems in the atmosphere and Earth's crust, and the regional patterns of climate and landforms associated with them.

If the World Was an Apple

D. Interconnections:

The student will give examples that demonstrate how people are connected to each other and the environment.

2. Students will analyze how the physical environment influences human activities.

Environmental Dilemmas

If the World Was an Apple

Life and Death

The More The Merrier?

People Count: Facing the Population Challenge

D. Interconnections:

The student will demonstrate how various regional frameworks are used to analyze the variation in culture and human occupation of the Earth's surface.

1. Students will explain the patterns of population density on the surface of the Earth and analyze the causes of population change.

If the World Was an Apple

Life and Death

The More The Merrier?

People Count: Facing the Population Challenge

5. Students will describe the patterns of economies on the surface of the Earth and explain how changes in technology affect patterns of change.

People Count: Facing the Population Challenge

D. Interconnections:

The student will demonstrate how various regional frameworks are used to analyze the variation in physical environment.

3. Students will describe how physical processes affect different regions of the world.

If the World Was an Apple

4. Students will interpret regional variation in the relationships among soil, climate, plant and animal life, and landforms

If the World Was an Apple

E. Essential Skills:

The student will use maps, globes, geographic information systems and other sources of information to analyze the natures of places at a variety of scales.

1. Students will demonstrate the ability to obtain geographic information from a variety of print and electronic sources.

The More The Merrier?

3. Students will locate major political and physical features of the United States and the world.

If the World Was an Apple

VI. Economics

A. Producers and Consumers:

The student will understand the concept of interdependence in relation to producers and consumers.

1. Students will compare and contrast the roles of producers and consumers.

Environmental Dilemmas

Timber!

B. Economic Choices:

The student will understand basic principles of economic decision making.

1. Students will understand the concept of scarcity and its role in decision-making.

If the World Was an Apple

Life and Death

The More The Merrier?

Timber!

2. Students will apply a decision-making process to make informed choices.

Environmental Dilemmas

VII. Government And Citizenship

A. Civic Values, Skills, Rights and Responsibilities:

The student will articulate the range of rights and responsibilities in a republic

2. Students will explain some of the responsibilities of people living in a democracy.

Environmental Dilemmas

Grade 5

Language Arts

III. Speaking, Listening And Viewing

A. Speaking and Listening:

The student will demonstrate understanding and communicate effectively through listening and speaking.

2. Demonstrate active listening and comprehension.

If the World Was an Apple
Life and Death
Timber!

Mathematics

I. Mathematical Reasoning

Apply skills of mathematical representation, communication and reasoning throughout the remaining four content strands.

1. Communicate, reason and represent situations mathematically.

If the World Was an Apple
Life and Death
Timber!

5. Express a written problem in suitable mathematical language, solve the problem and interpret the result in the original context.

Timber!

6. Support mathematical results using pictures, numbers, and words to explain why the steps in a solution are valid and why a particular solution method is appropriate.

If the World Was an Apple
Life and Death
Timber!

7. Organize, record and communicate math ideas coherently and clearly.

If the World Was an Apple
Life and Death
Timber!

II. Number Sense, Computation, And Operations

A. Number Sense:

Represent fractions, decimals and whole numbers in a variety of ways, to quantify information and to solve real-world and mathematical problems. Understand the concept of negative numbers.

4. Use a variety of estimation strategies such as rounding, truncation, over- and underestimation and decide when an estimated solution is appropriate.

Life and Death
Timber!

B. Computation and Operation:

Compute fluently and make reasonable estimates with fractions, decimals, and whole numbers, in real-world and mathematical problems. Understand the meanings of arithmetic operations and how they relate to one another.

1. Use addition, subtraction, multiplication and division of multi-digit whole numbers to solve multi-step, real-world and mathematical problems.

Life and Death
Timber!

III. Patterns, Functions, And Algebra

A. Patterns and Functions:

Understand and describe patterns in numbers, shapes, tables and graphs.

1. Identify patterns in numbers, shapes, tables, and graphs and explain how to extend those patterns.
Timber!

B. Algebra (Algebraic Thinking):

Represent mathematical relationships using equations.

1. Evaluate numeric expressions in real-world and mathematical problems.
Timber!

IV. Data Analysis, Statistics And Probability

A. Data and Statistics:

Represent data and use various measures associated with data to draw conclusions and identify trends.

2. Use fractions and percentages to compare data sets.
If the World Was an Apple
Life and Death
3. Collect data using measurements, surveys or experiments and represent the data with tables and graphs with labeling.
If the World Was an Apple
Timber!

V. Spatial Sense, Geometry, And Measurement

C. Measurement:

Measure and calculate length, area and capacity using appropriate tools and units to solve real-world and mathematical problems.

3. Select and apply the appropriate units and tools to measure perimeter, area and capacity.
Life and Death

Science

I. History And Nature Of Science

B. Scientific Inquiry:

The student will understand the process of scientific investigations.

1. The student will perform a controlled experiment using a specific step-by-step procedure and present conclusions supported by the evidence.
Life and Death
Timber!

Grade 6

Language Arts

I. Reading And Literature

C. Comprehension:

The student will understand the meaning of informational, expository or persuasive texts, using a variety of strategies and will demonstrate literal, interpretive, inferential and evaluative comprehension.

3. Generate and answer literal, inferential, interpretive and evaluative questions to demonstrate understanding about what is read.

People Count: Facing the Population Challenge

III. Speaking, Listening And Viewing

A. Speaking and Listening:

Students will demonstrate understanding and communicate effectively through listening and speaking.

1. Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.

Environmental Dilemmas
Everything Is Connected

2. Know and apply listening rules and expectations for formal settings and demonstrate comprehension.

Environmental Dilemmas

3. Actively listen and comprehend messages.

Environmental Dilemmas

6. Orally communicate information, opinions and ideas effectively to different audiences for a variety of purposes.

Environmental Dilemmas

Mathematics

II. Number Sense, Computation, And Operations

A. Number Sense:

Use positive and negative rational numbers, represented in a variety of ways, to quantify information and to solve real-world and mathematical problems.

2. Use rounding and estimation with integers, decimals and fractions to solve real-world and mathematical problems.

Life and Death

B. Computation and Operation:

Compute fluently and make reasonable estimates with positive and negative rational numbers in real-world and mathematical problems. Understand the meanings of arithmetic operations and factorization, and how they relate to one another. Appropriately use calculators and other technologies to solve problems.

3. Use addition, subtraction, multiplication and division of multi-digit whole and decimal numbers to solve multi-step real-world and mathematical problems.

Timber!

IV. Data Analysis, Statistics And Probability

A. Data and Statistics:

Represent data and use various measures associated with data to draw conclusions and identify trends.

1. Collect, organize and represent categorical and numerical data with tables and bar graphs.
Timber!

V. Spatial Sense, Geometry, And Measurement

C. Measurement:

Make calculations of time, length, area and volume within standard measuring systems, using good judgment in choice of units.

1. Solve problems requiring conversion of units within the U.S. customary system, and within the metric system.

Life and Death

2. Express measures of time and distance as fractions, mixed numbers and decimals to solve real-world and mathematical problems.

Life and Death

Science

I. History And Nature Of Science

A. Scientific World View:

The student will understand that science is a way of knowing about the world that is characterized by empirical criteria, logical argument and skeptical review.

1. The student will distinguish between scientific evidence and personal opinion.

Environmental Dilemmas

B. Scientific Inquiry:

The student will understand that scientific inquiry is used in systematic ways to investigate the natural world.

3. The student will use appropriate tools and Système International (SI) units for measuring length, time, mass, volume and temperature with suitable precision and accuracy.

Timber!

4. The student will present and explain data and findings from controlled experiments using multiple representations including tables, graphs, physical models and demonstrations.

If the World Was an Apple

Timber!

Grade 7

Language Arts

I. Reading And Literature

C. Comprehension:

The student will understand the meaning of texts, using a variety of strategies, and will demonstrate literal, interpretive, inferential and evaluative comprehension.

1. Comprehend, interpret and evaluate text by asking and answering questions.

People Count: Facing the Population Challenge

III. Speaking, Listening And Viewing

A. Speaking and Listening:

Students will demonstrate understanding and communicate effectively through listening and speaking.

1. Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.

Environmental Dilemmas

Everything Is Connected

III. Speaking, Listening And Viewing

A. Speaking and Listening:

The student will demonstrate understanding and communicate effectively through listening and speaking.

1. Participate in and follow agreed-upon rules for conversation and formal discussions in large and small groups.

Environmental Dilemmas

Everything Is Connected

2. Actively listen and comprehend messages.

Environmental Dilemmas

Mathematics

II. Number Sense, Computation, And Operations

B. Computation and Operation:

Compute fluently and make reasonable estimates with rational numbers in real-world and mathematical problems. Understand the meanings of the basic operations, including the use of integer exponents and square roots, and how the operations relate to one another. Appropriately use calculators and other technologies to solve problems.

1. Add, subtract, multiply and divide fractions and mixed numbers.

If the World Was an Apple

V. Spatial Sense, Geometry, And Measurement

C. Measurement:

Make calculations of time, length, area and volume within standard measuring systems using good judgment in choice of units.

1. Choose appropriate units to calculate, measure, and record length, weight, area and volume in both U.S. customary and metric systems.

Life and Death

Science

I. History And Nature Of Science

A. Scientific World View:

The student will understand that science is a way of knowing about the world that is characterized by empirical criteria, logical argument and skeptical review.

2. The student will explain natural phenomena by using appropriate physical, conceptual and mathematical models.

Everything Is Connected
If the World Was an Apple
Life and Death
Timber!

IV. Life Science

C. Interdependence of Life:

The student will understand that within ecosystems, complex interactions exist between organisms and the physical environment.

1. The student will provide examples of the potentially irreversible effects of human activity on ecosystems.

Everything Is Connected
If the World Was an Apple
Life and Death
Timber!

4. The student will explain the factors that affect the number and types of organisms an ecosystem can support, including available resources, abiotic and biotic factors and disease.

If the World Was an Apple
Life and Death
The More The Merrier?
Timber!

G. Human Organism:

The student will understand human body systems and their relationship to disease.

2. The student will identify risks associated with natural, chemical and biological hazards.

Environmental Dilemmas
Everything Is Connected
If the World Was an Apple
Life and Death
The More The Merrier?
Timber!

Grade 8

Mathematics

III. Patterns, Functions, And Algebra

A. Patterns and Functions:

Understand and describe progressions. Use graphs and tables to solve real-world and mathematical problems.

1. Recognize when a list of numbers forms an arithmetic or geometric progression and be able to determine subsequent terms in the progression.

Timber!

2. Represent quantitative relationships graphically and use the graphs to solve real-world and mathematical problems.

If the World Was an Apple

Timber!

C. Measurement:

Make calculations of time, length, area and volume within and between standard measuring systems using good judgment in choice of units.

2. Use arithmetic to solve simple real-world and mathematical problems involving mixed units such as minutes and hours in elapsed time, degrees and minutes in latitude and longitude and feet and inches in distance.

Life and Death

Science

I. History And Nature Of Science

A. Scientific World View:

The student will understand that science is a way of knowing about the world that is characterized by empirical criteria, logical argument and skeptical review.

1. The student will explain and give examples of how science can be used to make informed ethical decisions by identifying likely consequences of particular actions.

Environmental Dilemmas

Everything Is Connected

If the World Was an Apple

Life and Death

Timber!

B. Scientific Inquiry:

The student will use multiple skills to design and conduct scientific investigations.

3. The student will use appropriate technology and mathematics skills to access, gather, store, retrieve and organize data.

Life and Death

Timber!

D. Historic Perspectives:

The student will understand how scientific discovery, culture, societal norms and technology have influenced one another in different time periods.

2. The student will cite examples of how science and technology contributed to changes in agriculture, manufacturing, sanitation, medicine, warfare, transportation, information processing or communication.

Environmental Dilemmas
If the World Was an Apple

III. Earth And Space Science

A. Earth Structure and Processes:

The student will investigate the impact humans have on the environment.

1. The student will identify and research an environmental issue and evaluate its impact.

Environmental Dilemmas
Everything Is Connected
If the World Was an Apple
Life and Death
The More The Merrier?
Timber!

Grade 9 to Grade 12

Social Studies

I. U.S. History

O. Contemporary United States, 1970 to the present:

The student will understand the evolution of foreign and domestic policy in the last three decades of the 20th century and the beginning of the 21st century.

2 Students will demonstrate knowledge of economic, social, and cultural developments in contemporary United States.

- Environmental Dilemmas
- Everything Is Connected
- If the World Was an Apple

V. Geography

C. Spatial Organization:

The student will analyze the patterns of location, functions, structure, and characteristics of local to global settlement patterns and the processes that affect the location of cities.

4. Students will describe how changes in transportation technology, government policies, lifestyles, and cycles in economic activity impact the suburbanization of the United States.

- Environmental Dilemmas

D. Interconnections:

The student will describe how humans influence the environment and in turn are influenced by it.

2. Students will analyze the advantages and drawbacks of several common proposals to change the human use of environmental resources.

- Environmental Dilemmas
- If the World Was an Apple

Science

I. History And Nature Of Science

A. Scientific World View:

The student will understand the nature of scientific ways of thinking and that scientific knowledge changes and accumulates over time.

5. The student will recognize that some scientific ideas are incomplete, and opportunity exists in these areas for new advances.

- If the World Was an Apple

B. Scientific Inquiry:

The student will design and conduct a scientific investigation.

3. The student will apply mathematics and models to analyze data and support conclusions.

- If the World Was an Apple

C. Scientific Enterprise:

The student will understand the relationship between science and technology and how both are used.

2. The student will provide an example of a need or problem identified by science and solved by engineering or technology.

- Everything Is Connected

If the World Was an Apple

4. The student will know that technological changes and scientific advances are often accompanied by social, political, environmental and economic changes.

Everything Is Connected
If the World Was an Apple

5. The student will recognize that science and technology are influenced by cultural backgrounds and beliefs and by social needs, attitudes, values and limitations.

Environmental Dilemmas

III. Earth And Space Science

A. Earth Structure and Processes:

The student will investigate the impact humans have on the environment.

1. The student will identify and research an environmental issue and evaluate its impact.

Environmental Dilemmas
Everything Is Connected