



New Mexico State Science and Social Studies Standards Correlation

Unit 1: Understanding a Watershed

Project 1: Our Rivers

Social Studies:

Geography

II-A.1 Make and use different kinds of maps, globes, charts and databases.

II-A.2 Demonstrate how different areas of the United States are organized and interconnected.

II-A.5 Employ fundamental geographic vocabulary.

II-A.8 Identify and locate natural and man-made features of local, regional, state, national, and international locales.

II-B.1 Describe human and natural characteristics of places.

II-B.2 Describe similarities and differences among regions of the globe and their patterns of change.

II-C Describe how man-made and natural environments have influenced conditions in the past.

II-D.1 Explain how the four provinces of New Mexico's land surface (plains, mountains, plateau, basin and range) support life.

II-E.1 Explain how physical features influenced the expansion of the United States.

Economics

IV-A.2 Understand the patterns of work and economic activities in New Mexico and the United States (e.g., farming, ranching, oil and gas production, high tech, manufacturing, medicine).

IV-B.2 Identify the influence of bordering countries (Canada and Mexico) on United States commerce.

Project 2: Watershed Model

Science:

Scientific Thinking and Practice

I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.

Content of Science

III-A.3 Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die);

III-A.4 Describe how human activity impacts the environment.

IV-B.1 Understand that water and air relate to earth's processes, including: how the water cycle relates to weather, and how clouds are made of tiny droplets of water, like fog or steam;

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

Social Studies:

Geography

II-B.1 Describe human and natural characteristics of places.

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-C Describe how man-made and natural environments have influenced conditions in the past.

II-C.2 Identify and define geographic issues and problems from accounts of current events.

II-F.1 Understand how resources impact daily life.

Common Core Standards for Mathematics: (Don't Trash Our Rio)

- 5.NBT.4. Use place value understanding to round decimals to any place.
- 5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm.
- 5.NBT.6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
- 5.NBT.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
- 5.NF.6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
- 5.MD.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Project 3: Infiltration and Runoff

Science:

Scientific Thinking and Practice

- I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.
- I-A.3 Use graphic representations (e.g., charts, graphs, tables, labeled diagrams) to present data and produce explanations for investigations.
- I-C.1 Use appropriate units to make precise and varied measurements.
- I-C.2 Use mathematical skills to analyze data.
- I-C.4 Understand the attributes to be measured in a scientific investigation and describe the units, systems and processes for making the measurement;

Content of Science

- III-A.4 Describe how human activity impacts the environment.
- IV-B.1 Understand that water and air relate to earth's processes, including: how the water cycle relates to weather, and how clouds are made of tiny droplets of water, like fog or steam;

Science and Society

- V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

Social Studies:

Geography

- II-B.1 Describe human and natural characteristics of places.
- II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

NM State Standards for Math: (Does It Soak Right In?)

- II-A.2 Describe, represent and analyze patterns and relationships.
- II-C.2 Understand and use mathematical models such as graphs.
- IV-B.1 Solve measurement problems using appropriate tools involving length, perimeter, weight, capacity, time, and temperature.
- V-A.1. Construct, read, analyze, and interpret tables, charts, graphs, and data plots.
- V-A.3. Display, analyze, compare, and interpret different data sets, including data sets of different sizes.
- V-A.4. Organize and display single-variable data in appropriate graphs and representations.
- V-A.5. Organize, read, and display numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including correct titles, labels, and intervals or categories including charts/tables.
- V-A.6. Formulate questions and identify data to be collected to correctly answer a question.

Project 4: Forests and Wetlands

Science:

Scientific Thinking and Practice

I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.

Content of Science

III-A.3 Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die);

III-A.4 Describe how human activity impacts the environment.

IV-B.1 Understand that water and air relate to earth's processes, including: how the water cycle relates to weather, and how clouds are made of tiny droplets of water, like fog or steam;

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

Social Studies:

Geography

II-B.1 Describe human and natural characteristics of places

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-C.1 Describe how man-made and natural environments have influenced conditions in the past.

II-C.2 Identify and define geographic issues and problems from accounts of current events.

Unit 2: Water in Our Society

Project 5: Commercial Uses of Our Rivers

Science:

Scientific Thinking and Practice

I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.

I-A.3 Use graphic representations (e.g., charts, graphs, tables, labeled diagrams) to present data and produce explanations for investigations.

I-C.2 Use mathematical skills to analyze data.

I-C.4 Understand the attributes to be measured in a scientific investigation and describe the units, systems and processes for making the measurement;

Content of Science

III-A.3 Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die);

III-A.4 Describe how human activity impacts the environment

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

V-A.2 Describe how various technologies have affected the lives of individuals (e.g., transportation, entertainment, health);

Social Studies:

History

I-B.4 Identify the interactions between American Indians and European settlers, including agriculture, cultural exchanges, alliances, and conflicts.

Geography

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-C.1 Describe how man-made and natural environments have influenced conditions in the past.

II-E.1 Explain how physical features influenced the expansion of the United States.

II-F.1 Understand how resources impact daily life.

Economics

- IV-A.1 Understand the impact of supply and demand on consumers and producers in a free enterprise system.
IV-A.2 Understand the patterns of work and economic activities in New Mexico and the United States (e.g., farming, ranching, oil and gas production, high tech, manufacturing, medicine).
IV-C.1 Understand the basic economic patterns of early societies (e.g., hunter-gatherers, early farming, business).

Project 6: Drinking Water

Science:

Scientific Thinking and Practice

- I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.
I-A.2 Use appropriate technologies (e.g., calculators, computers, balances, spring scales, microscopes, etc.) to perform scientific tests and to collect and display data;
I-C.2 Use mathematical skills to analyze data.
I-C.4 Understand the attributes to be measured in a scientific investigation and describe the units, systems and processes for making the measurement;

Content of Science

- III-A.4 Describe how human activity impacts the environment.
IV-B.3 Know that most of Earth's surface is covered by water, and that fresh water is found in rivers, lakes, underground sources and glaciers.

Science and Society

- V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).
V-A.2 Describe how various technologies have affected the lives of individuals (e.g., transportation, entertainment, health);

Social Studies:

Geography

- II-A.8 Identify and locate natural and man-made features of local, regional, state, national and international locales.
II-B.2 Describe similarities, differences and patterns of change among regions of the globe.
II-C.1 Describe how man-made and natural environments have influenced conditions in the past.
II-C.2 Identify and define geographic issues and problems from accounts of current events.
II-E.1 Explain how physical features influenced the expansion of the United States.
II-F.1 Understand how resources impact daily life.

Economics

- IV-A.1 Understand the impact of supply and demand on consumers and producers in a free enterprise system

Common Core Standards for Mathematics:

- 5.NBT.4. Use place value understanding to round decimals to any place.
5.NBT.5. Fluently multiply multi-digit whole numbers using the standard algorithm.
5.NBT.6. Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.
5.NBT.7. Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.
5.NF.6. Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.
5.MD.1. Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Project 7: Groundwater

Science:

Scientific Thinking and Practice

I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.

Science Content

III-A.4 Describe how human activity impacts the environment.

IV-B.1 Understand that water and air relate to earth's processes, including: how the water cycle relates to weather, and how clouds are made of tiny droplets of water, like fog or steam;

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

V-A.2 Describe how various technologies have affected the lives of individuals (e.g., transportation, entertainment, health);

Social Studies:

Geography

II-A.8 Identify and locate natural and man-made features of local, regional, state, national and international locales.

II-B.1 Describe human and natural characteristics of places.

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-C.1 Describe how man-made and natural environments have influenced conditions in the past.

II-F.1 Understand how resources impact daily life.

Project 8: Wastewater

Science:

Content of Science

II-C.1 Understand that all living organisms are composed of cells from one to many trillions, and that cells are usually only visible through a microscope;

III-A.3 Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die)

III-A.4 Describe how human activity impacts the environment

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

V-A.2 Describe how various technologies have affected the lives of individuals (e.g., transportation, entertainment, health);

Social Studies:

Geography

II-A.2 Demonstrate how different areas of the United States are organized and interconnected.

II-A.8 Identify and locate natural and man-made features of local, regional, state, national and international locales.

II-B.1 Describe human and natural characteristics of places.

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-F.1 Understand how resources impact daily life.

Economics

IV-A.2 Understand the patterns of work and economic activities in New Mexico and the United States (e.g., farming, ranching, oil and gas production, high tech, manufacturing, medicine).

IV-B.2 Identify the influence of bordering countries (Canada and Mexico) on United States commerce.

Unit 3: River Ecosystems

Project 9: Field Trip

Science:

Scientific Thinking and Practice

I-A.1 Plan and conduct investigations, including formulating testable questions, making systematic observations, developing logical conclusions, and communicating findings.

I-A.2 Use appropriate technologies (e.g., calculators, computers, balances, spring scales, microscopes, etc.) to perform scientific tests and to collect and display data;

I-C.1 Use appropriate units to make precise and varied measurements;

I-C.2 Make predictions based on analyses of data, observations and explanations;

I-C.4 Understand the attributes to be measured in a scientific investigation and describe the units, systems and processes for making the measurement;

Content of Science

III-A.1 Identify the components of habitats and ecosystems (producers, consumers, decomposers and predators).

III-A.2 Understand how food webs depict relationships between different organisms.

III-A.3 Know that changes in the environment can have different effects on different organisms (e.g., some organisms move, some survive, some reproduce, some die).

III-A.4 Describe how human activity impacts the environment.

Science and Society

V-A.1 Describe the contributions of science to understanding local or current issues (e.g., watershed and community decisions regarding water use).

Social Studies:

II-A.8 Identify and locate natural and man-made features of local, regional, state, national and international locales.

II-B.1 Describe human and natural characteristics of places

II-B.2 Describe similarities, differences and patterns of change among regions of the globe.

II-C.1 Describe how man-made and natural environments have influenced conditions in the past.

II-C.2 Identify and define geographic issues and problems from accounts of current events.

II-F.1 Understand how resources affect daily life.