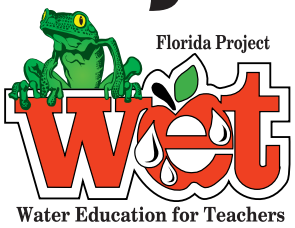
Sunshine State Standards Correlation to Project



Activities

Publication of

Southwest Florida Water Management District

SPLASH! into Water Resources Education
Southwest Florida Water Management District

Visit our Web site at **WaterMatters.org**.

Sunshine State Standards Correlation to *Project WET* Activities

Dear Educator:

The following is a guide that correlates Florida's Sunshine State Standards to each activity in *Project WET*. The activities are listed in numeric order as they appear in *Project WET*. Background, Procedure, Warm-Up, and Activities and Extensions were all considered when determining which standards were applicable. While some benchmarks are obvious, others are more subjective. Any variation or particular emphasis chosen by the teacher will affect the standards covered by the activity. We hope this guide is beneficial in your educational endeavors as you use *Project WET*. For more information about *Project WET*, visit the following Internet sites: www.montana.edu/wwwwet/ or www.sjr.state.fl.us/ To learn about the Southwest Florida Water Management District's water resources education programs, call 1-800-423-1476, ext. 4757, or visit WaterMatters.org.

Sincerely,

In-School Education Section
Communications Department
Southwest Florida Water Management District

Guide to using this booklet:

Whose Problem Is It?← *Title of Activity*

Pages 429-432 ← *Page of Activity*

6-8 ← *Grade Range of Standards*

Science ← *Subject*

How Living Things Interact with Their Environment ←*Strand*

SC.G.2.3.4 **–** The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.←*Benchmark*

Social Studies ← *Subject*

People, Places, and Environments ←*Strand*

SS.B.1.3.6 – The student understands the ways in which regional systems are interconnected.←*Benchmark*

Adventures in Density
Pages 25-29

6-8
Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

SC.A.1.3.6 – The student knows that equal volumes of different substances may have different masses.

H_2Olympics
Pages 30-34

3-5
Science

Force and Motion

SC.C.1.2.1 – The student understands that the motion of an object can be described and measured.

SC.C.2.2.2 – The student knows that an object may move in a straight line at a constant speed, speed up, slow down, or change direction dependent on the net force acting on the object.

Hangin' Together
Pages 35-42

6-8
Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

SC.A.2.3.2 – The student knows the general properties of the atom (a massive nucleus of neutral neutrons and positive protons surrounded by a cloud of negative electrons) and accepts that single atoms are not visible.

9-12
Science

The Nature of Matter

SC.A.1.4.5 – The student knows that connections (bonds) form between substances when outer-shell electrons are either transferred or shared between their atoms, changing the properties of substances.

Is There Water on Zork?
Pages 43-46

6-8
Science

The Nature of Matter

SC.A.1.3.1 – The student identifies various ways in which substances differ (e.g., mass, volume, shape, density, texture, and reaction to temperature and light).

The Nature of Science

SC.H.1.3.5 – The student knows that a change in one or more variables may alter the outcome of an investigation.

Molecules in Motion
Pages 47-49

3-5
Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

SC.A.2.2.1 – The student knows that materials may be made of parts too small to be seen without magnification.

Energy

SC.B.1.2.6 – The student knows ways that heat can move from one object to another.

Water Match
Pages 50-53

K-2
Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

SC.A.1.1.3 – The student verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt).

3-5
Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

SC.A.2.2.1 – The student knows that materials may be made of parts too small to be seen without magnification.

What's the Solution?
Pages 54-60

3-5
Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

SC.A.1.2.4 – The student knows that different materials are made by physically combining substances and that different objects can be made by combining different materials.

SC.A.1.2.5 – The student knows that materials made by chemically combining two or more substances may have properties that differ from the original materials.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

6-8
Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

Aqua Bodies
Pages 63-65

K-2
Mathematics

Number Sense, Concepts, and Operations

MA.A.4.1.1 – The student provides and justifies estimates for real-world quantities.

3-5
Mathematics

Measurement

MA.B.1.2.2 – The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

Aqua Notes
Pages 66-71

K-2
Music

Skills and Techniques

MU.A.1.1.2 – The student sings simple songs (e.g., folk, patriotic, nursery rhymes, rounds, and singing games) with appropriate tone, pitch, and rhythm, with and without accompaniment.

Applications to Life

MU.E.1.1.2 – The student understands how music is related to other subjects (e.g., how vibrations, which are studied in science, produce musical sounds).

3-5
Science

Processes of Life

SC.F.1.2.1 – The student knows that the human body is made of systems with structures and functions that are related.

Let's Even Things Out
Pages 72-75

3-5
Science

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8
Science

Energy

SC.B.2.3.1 – The student knows that most events in the universe (e.g., weather changes, moving cars, and the transfer of a nervous impulse in the human body) involve some form of energy transfer and that these changes almost always increase the total disorder of the system and its surroundings, reducing the amount of useful energy.

Processes of Life

SC.F.1.3.5 – The student explains how the life functions of organisms are related to what occurs within the cell.

The Life Box
Pages 76-78

K-2
Science

Energy

SC.B.1.1.1 – The student knows that the sun supplies heat and light energy to Earth.

Processes of Life

SC.F.1.1.1 – The student knows the basic needs of all living things.

SC.F.1.1.2 – The student knows how to apply knowledge about life processes to distinguish between living and non-living things.

How Living Things Interact with Their Environment

SC.G.1.1.1 – The student knows that environments have living and non-living parts.

3-5

Science

Energy

SC.B.2.2.1 – The student knows that some source of energy is needed for organisms to stay alive and grow.

Processes that Shape the Earth

SC.D.1.2.1 – The student knows that larger rocks can be broken down into smaller rocks, which in turn can be broken down to combine with organic material to form soil.

How Living Things Interact with Their Environment

SC.G.1.2.3 – The student knows that green plants use carbon dioxide, water, and sunlight energy to turn minerals and nutrients into food for growth, maintenance, and reproduction.

Life in the Fast Lane

Pages 79-84

3-5

Language Arts

Writing

LA.B.2.2.3 – The student writes for a variety of occasions, audiences, and purposes.

Science

The Nature of Matter

SC.A.2.2.1 – The student knows that materials may be made of parts too small to be seen without magnification.

How Living Things Interact with Their Environment

SC.G.1.2.5 – The student knows that animals eat plants or other animals to acquire the energy they need for survival.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

6-8

Science

Processes of Life

SC.F.1.3.7 – The student knows that behavior is a response to the environment and influences growth, development, maintenance, and reproduction.

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

No Bellyachers
Pages 85-88

3-5
Health Education
Health Literacy
HE.A.1.2.2 – The student knows how personal health behaviors influence individual well-being.

6-8
Science
How Living Things Interact with Their Environment
SC.G.1.3.1 – The student knows that viruses depend on other living things.
Health Education
Health Literacy
HE.A.1.3.2 – The student understands the relationship between positive health behaviors and the prevention of injury, illness, disease, and other health problems.
HE.A.1.3.5 – The student understands the relationship between environment and personal health.

People of the Bog
Pages 89-92

6-8
Science
Energy
SC.B.2.3.2 – The student knows that most of the energy used today is derived from burning stored energy collected by organisms millions of years ago (i.e., nonrenewable fossil fuels).

Poison Pump
Pages 93-98

6-8
Health Education
Health Literacy
HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12
Science
The Nature of Science
SC.H.3.4.3 – The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.

Salt Marsh Players
Pages 99-106

3-5
Science

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

How Living Things Interact with Their Environment

SC.G.1.2.1 – The student knows ways that plants, animals, and protists interact.

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.4 – The student knows that some organisms decompose dead plants and animals into simple minerals and nutrients for use by living things and thereby recycle matter.

SC.G.1.2.6 – The student knows that organisms are growing, dying, and decaying and that new organisms are being produced from the materials of dead organisms.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

SC.G.2.2.2 – The student knows that the size of a population is dependent upon the available resources within its community.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

Super Sleuths
Pages 107-115

6-8
Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12
Health Education

Health Literacy

HE.A.1.4.4 – The student understands how the environmental conditions of the community influence the health of individuals.

Thirsty Plants
Pages 116-121

3-5
Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

How Living Things Interact with Their Environment

SC.G.1.2.3 – The student knows that green plants use carbon dioxide, water, and sunlight energy to turn minerals and nutrients into food for growth, maintenance, and reproduction.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8
Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

Processes of Life

SC.F.1.3.1 – The student understands that living things are composed of major systems that function in reproduction, growth, maintenance, and regulation.

Water Address
Pages 122-126

3-5
Science

Processes that Shape the Earth

SC.D.1.2.2 – The student knows that 75 percent of the surface of the Earth is covered by water.

Processes of Life

SC.F.2.2.1 – The student knows that many characteristics of an organism are inherited from the parents of the organism, but that other characteristics are learned from an individual's interactions with the environment.

How Living Things Interact with Their Environment

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

Social Studies

People, Places, and Environments

SS.B.1.2.1 – The student uses maps, globes, charts, graphs, and other geographic tools, including map keys and symbols, to gather and interpret data and to draw conclusions about physical patterns.

6-8

Science

Processes of Life

SC.F.1.3.7 – The student knows that behavior is a response to the environment and influences growth, development, maintenance, and reproduction.

How Living Things Interact with Their Environment

SC.G.1.3.2 – The student knows that biological adaptations include changes in structures, behaviors, or physiology that enhance reproductive success in a particular environment.

Branching Out!

Pages 129-132

3-5

Mathematics

Data Analysis and Probability

MA.E.2.2.1 – The student uses models, such as tree diagrams, to display possible outcomes and to predict events.

MA.E.2.2.2 – The student predicts the likelihood of simple events occurring.

Science

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.1.2.5 – The student understands that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8

Science

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Capture, Store, and Release

Pages 133-135

3-5

Science

Force and Motion

SC.C.1.2.1 – The student understands that the motion of an object can be described and measured.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

6-8

Science

Force and Motion

SC.C.1.3.1 – The student knows that the motion of an object can be described by its position, direction of motion, and speed.

Processes that Shape the Earth

SC.D.1.3.3 – The student knows how conditions that exist in one system influence the conditions that exist in other systems.

The Nature of Science

SC.H.1.3.5 – The student knows that a change in one or more variables may alter the outcome of an investigation.

9-12

Science

The Nature of Science

SC.H.3.4.3 – The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.

Get the Ground Water Picture

Pages 136-143

3-5

Mathematics

Number Sense, Concepts, and Operations

MA.A.3.2.3 – The student adds, subtracts, and multiplies whole numbers, decimals, and fractions, including mixed numbers, and divides whole numbers to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.

Measurement

MA.B.1.2.1 – The student uses concrete and graphic models to develop procedures for solving problems related to measurement including length, weight, time, temperature, perimeter, area, volume, and angle.

Science

Force and Motion

SC.C.2.2.4 – The student knows that the motion of an object is determined by the overall effect of all of the forces acting on the object.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

Geyser Guts
Pages 144-149

3-5
Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common material (e.g., water) can be changed from one state to another by heating and cooling.

Energy

SC.B.1.2.4 – The student knows the many ways in which energy can be transformed from one type to another.

Force and Motion

SC.C.2.2.4 – The student knows that the motion of an object is determined by the overall effect of all of the forces acting on the object.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

6-8
Science

Energy

SC.B.1.3.1 – The student identifies forms of energy and explains that they can be measured and compared.

SC.B.1.3.5 – The student knows the processes by which thermal energy tends to flow from a system of higher temperature to a system of lower temperature.

The Great Stony Book
Pages 150-154

3-5
Science

Processes that Shape the Earth

SC.D.1.2.1 – The student knows that larger rocks can be broken down into smaller rocks, which in turn can be broken down to combine with organic material to form soil.

SC.D.1.2.4 – The student knows that the surface of the Earth is in a continuous state of change as waves, weather, and shifts of the land constantly change and produce many new features.

SC.D.1.2.5 – The student knows that some changes in the Earth's surface are due to slow processes and some changes are due to rapid processes.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8

Science

Processes that Shape the Earth

SC.D.1.3.1 – The student knows that mechanical and chemical activities shape and reshape the Earth's land surface by eroding rock and soil in some areas and depositing them in other areas, sometimes in seasonal layers.

SC.D.1.3.5 – The student understands concepts of time and size relating to the interaction of Earth's processes (e.g., lightning striking in a split second as opposed to the shifting of the Earth's plates altering the landscape, distance between atoms measured in Angstrom units as opposed to distance between stars measured in light-years).

9-12

Science

Processes that Shape the Earth

SC.D.1.4.4 – The student knows that Earth's systems and organisms are the result of a long, continuous change over time.

A House of Seasons

Pages 155-156

K-2

Language Arts

Writing

LA.B.2.1.2 – The student uses knowledge and experience to tell about experiences or to write for familiar occasions, audiences, and purposes.

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

Processes that Shape the Earth

SC.D.1.1.3 – The students recognizes patterns in weather.

The Nature of Science

SC.H.2.1.1 – The student knows that most natural events occur in patterns.

Visual Arts

Skills and Techniques

VA.A.1.1.1 – The student uses two-dimensional and three-dimensional media, techniques, tools, and processes to depict works of art from personal experiences, observation, or imagination.

3-5

Language Arts

Writing

LA.B.2.2.1 – The student writes notes, comments, and observations that reflect comprehension of content and experiences from a variety of media.

LA.B.2.2.6 – The student creates expository responses in which ideas and details follow an organizational pattern and are relevant to the purpose.

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Earth and Space

SC.E.1.2.1 – The student knows that the tilt of the Earth on its own axis as it rotates and revolves around the sun causes changes in season, length of day, and energy available.

Visual Arts

Skills and Techniques

VA.A.1.2.1 – The student uses and organizes two-dimensional and three-dimensional media, techniques, tools, and processes to produce works of art that are derived from personal experience, observation, or imagination.

Imagine!

Pages 157-160

K-2

Language Arts

Listening, Viewing, and Speaking

LA.C.1.1.1 – The student listens for a variety of informational purposes, including curiosity, pleasure, getting directions, performing tasks, solving problems, and following rules.

LA.C.1.1.4 – The student retells specific details of information heard, including sequence of events.

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

Processes that Shape the Earth

SC.D.1.1.3 – The student recognizes patterns in weather.

The Nature of Science

SC.H.2.1.1 – The student knows that most natural events occur in patterns.

3-5

Language Arts

Listening, Viewing, and Speaking

LA.C.1.2.1 – The student listens and responds to a variety of oral presentations, such as stories, poems, skits, songs, personal accounts, and informational speeches.

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

6-8

Science

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

The Incredible Journey

Pages 161-165

K-2

Language Arts

Writing

LA.B.2.1.2 – The student uses knowledge and experience to tell about experiences or to write for familiar occasions, audiences, and purposes.

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

SC.A.1.1.3 – The student verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt).

Energy

SC.B.1.1.1 – The student knows that the sun supplies heat and light energy to Earth.

Processes that Shape the Earth

SC.D.1.1.3 – The student recognizes patterns in weather.

The Nature of Science

SC.H.2.1.1 – The student knows that most natural events occur in patterns.

3-5

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

SC.A.2.2.1 – The student knows that materials may be made of parts too small to be seen without magnification.

Force and Motion

SC.C.1.2.1 – The student understands that the motion of an object can be described and measured.

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

6-8

Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

Force and Motion

SC.C.2.3.7 – The student knows that gravity is a universal force that every mass exerts on every other mass.

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Just Passing Through

Pages 166-170

3-5

Science

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

6-8

Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Old Water

Pages 171-173

3-5

Science

Processes that Shape the Earth

SC.D.1.2.2 – The student knows that 75 percent of the surface of the Earth is covered by water.

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

Social Studies

People, Places, and Environments

SS.B.1.2.1 – The student uses maps, globes, charts, graphs, and other geographic tools, including map keys and symbols, to gather and interpret data and to draw conclusions about physical patterns.

6-8

Science

Processes that Shape the Earth

SC.D.1.3.2 – The student knows that over the whole Earth, organisms are growing, dying, and decaying as new organisms are produced by the old ones.

Social Studies

Time, Continuity, and Change

SS.A.1.3.1 – The student understands how patterns, chronology, sequencing (including cause and effect), and the identification of historical periods are influenced by frames of reference.

Piece It Together

Pages 174-181

K-2

Science

Energy

SC.B.1.1.1 – The student knows that the sun supplies heat and light energy to Earth.

Processes that Shape the Earth

SC.D.1.1.3 – The student recognizes patterns in weather.

Processes of Life

SC.F.1.1.4 – The student understands that structures of living things are adapted to their function in specific environments.

Social Studies

Time, Continuity, and Change

SS.A.1.1.1 – The student compares everyday life in different places and times and understands that people, places, and things change over time.

People, Places, and Environments

SS.B.1.1.4 – The student knows areas that can be classified as regions.

SS.B.2.1.1 – The student identifies some physical and human characteristics of places.

3-5

Science

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

SC.B.1.2.2 – The student recognizes various forms of energy (e.g., heat, light, and electricity).

SC.B.1.2.6 – The student knows ways that heat can move from one object to another.

Earth and Space

SC.E.1.2.1 – The student knows that the tilt of the Earth on its own axis as it rotates and revolves around the sun causes changes in season, length of day, and energy available.

SC.E.1.2.3 – The student knows that the sun is a star and that its energy can be captured or concentrated to generate heat and light for work on Earth.

How Living Things Interact with Their Environment

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

Social Studies

People, Places and Environments

SS.B.2.2.1 – The student understands why certain areas of the world are more densely populated than others.

SS.B.2.2.2 – The student understands how the physical environment supports and constrains human activities.

6-8

Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

Energy

SC.B.1.3.5 – The student knows the processes by which thermal energy tends to flow from a system of higher temperature to a system of lower temperature.

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Social Studies

People, Places, and Environments

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

9-12

Science

Processes that Shape the Earth

SC.D.1.4.1 – The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on its axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents).

SC.D.1.4.3 – The student knows that changes in Earth's climate, geological activity, and life forms may be traced and compared.

Poetic Precipitation

Pages 182-185

K-2

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

SC.A.1.1.3 – The student verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt).

The Nature of Science

SC.H.2.1.1 – The student knows that most natural events occur in patterns.

3-5

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

SC.A.2.2.1 – The student knows that materials may be made of parts too small to be seen without magnification.

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8

Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

SC.A.2.3.1 – The student describes and compares the properties of particles and waves.

Force and Motion

SC.C.2.3.7 – The student knows that gravity is a universal force that every mass exerts on every other mass.

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Rainy-Day Hike

Pages 186-190

K-2

Science

Processes that Shape the Earth

SC.D.2.1.1 – The student understands that people influence the quality of life of those around them.

The Nature of Science

SC.H.1.1.5 – The student uses the senses, tools, and instruments to obtain information from his or her surroundings.

Social Studies

People, Places, and Environments

SS.B.2.1.1 – The student identifies some physical and human characteristics of places.

3-5

Science

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

The Nature of Science

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

Social Studies

People, Places, and Environments

SS.B.1.2.1 – The student uses maps, globes, charts, graphs, and other geographic tools, including map keys and symbols, to gather and interpret data and to draw conclusions about physical patterns.

SS.B.2.2.3 – The student understands how human activity affects the physical environment.

6-8

Science

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Stream Sense

Pages 191-195

K-2

Language Arts

Writing

LA.B.2.1.1 – The student writes questions and observations about familiar topics, stories, or new experiences.

Listening, Viewing, and Speaking

LA.C.1.1.1 – The student listens for a variety of informational purposes, including curiosity, pleasure, getting directions, performing tasks, solving problems, and following rules.

LA.C.1.1.4 – The student retells specific details of information heard, including sequence of events.

Science

The Nature of Matter

SC.A.1.1.1 – The student knows that objects can be described, classified, and compared by their composition (e.g., wood or metal) and their physical properties (e.g., color,, size, and shape).

Processes of Life

SC.F.1.1.5 – The student compares and describes the structural characteristics of plants and animals.

The Nature of Science

SC.H.1.1.1 – The student knows that in order to learn, it is important to observe the same things often and compare them.

SC.H.1.1.4 – The student knows that people use scientific processes including hypotheses, making inferences, and recording and communicating data when exploring the natural world.

SC.H.1.1.5 – The student uses the senses, tools, and instruments to obtain information from his or her surroundings.

3-5

Language Arts

Writing

LA.B.1.2.1 – The student prepares for writing by recording thoughts, focusing on a central idea, grouping related ideas, and identifying the purpose for writing.

LA.B.2.2.1 – The student writes notes, comments, and observations that reflect comprehension of content and experiences from a variety of media.

Language

LA.D.1.2.2 – The student understands that language formality varies according to situations and audiences.

Science

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.1.2.4 – The student knows that to compare and contrast observations and results is an essential skill in science.

The Thunderstorm

Pages 196-200

K-2

Language Arts

Listening, Viewing, and Speaking

LA.C.1.1.1 – The student listens for a variety of informational purposes, including curiosity, pleasure, getting directions, performing tasks, solving problems, and following rules.

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

Processes that Shape the Earth

SC.D.1.1.3 – The student recognizes patterns in weather.

3-5

Language Arts

Listening, Viewing, and Speaking

LA.C.1.2.4 – The student listens attentively to the speaker, including making eye contact and facing the speaker.

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

Water Models

Pages 201-205

3-5

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Energy

SC.B.1.2.1 – The student knows how to trace the flow of energy in a system (e.g., as in an ecosystem).

SC.B.1.2.6 – The student knows ways that heat can move from one object to another.

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

How Living Things Interact with Their Environment

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

Wet Vacation

Pages 206-211

6-8

Language Arts

Writing

LA.B.2.3.3 – The student selects and uses appropriate formats for writing, including narrative, persuasive, and expository formats, according to the intended audience, purpose, and occasion.

Science

Processes that Shape the Earth

SC.D.1.3.3 – The student knows how conditions that exist in one system influence the conditions that exist in other systems.

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Social Studies

People, Places, and Environments

SS.B.1.3.1 – The student uses various map forms (including thematic maps) and other geographic representations, tools, and technologies to acquire, process, and report geographic information including patterns of land use, connections between places, and patterns of migration and diffusion.

9-12

Language Arts

Writing

LA.B.2.4.3 – The student writes fluently for a variety of occasions, audiences, and purposes, making appropriate choices regarding style, tone, level of detail, and organization.

Science

Processes that Shape the Earth

SC.D.1.4.1 – The student knows how climatic patterns on Earth result from an interplay of many factors (Earth's topography, its rotation on it axis, solar radiation, the transfer of heat energy where the atmosphere interfaces with lands and oceans, and wind and ocean currents).

Wetland Soils in Living Color

Pages 212-216

6-8

Science

The Nature of Matter

SC.A.1.3.1 – The student identifies various ways in which substances differ (e.g., mass, volume, shape, density, texture, and reaction to temperature and light).

Processes that Shape the Earth

SC.D.1.3.1 – The student knows that mechanical and chemical activities shape and reshape the Earth's land surface by eroding rock and soil in some areas and depositing them in other areas, sometimes in seasonal layers.

SC.D.1.3.4 – The student knows the ways in which plants and animals reshape the landscape (e.g., bacteria, fungi, worms, rodent, and other organisms add organic matter to the soil, increasing soil fertility, encouraging plant growth, and strengthening resistance to erosion).

A-maze-ing Water

Pages 219-222

K-2

Science

Processes that Shape the Earth

SC.D.2.1.1 – The student understands that people influence the quality of life of those around them.

How Living Things Interact with Their Environment

SC.G.2.1.2 – The student knows that the activities of humans affect plants and animals in many ways.

3-5

Science

Force and Motion

SC.C.1.2.1 – The student understands that the motion of an object can be described and measured.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.3 – The student knows that before a group of people build something or try something new, they should determine how it may affect other people.

6-8

Science

Processes that Shape the Earth

SC.D.2.3.1 – The student understands that quality of life is relevant to personal experience.

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Color Me a Watershed

Pages 223-231

9-12

Mathematics

Number Sense, Concepts, and Operations

MA.A.1.4.3 – The student understands concrete and symbolic representations of real and complex numbers in real-world situations.

MA.A.4.4.1 – The student uses estimation strategies in complex situations to predict results and to check the reasonableness of results.

Measurement

MA.B.1.4.1 – The student uses concrete and graphic models to derive formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional shapes, including rectangular solids, cylinders, cones, and pyramids.

Data Analysis and Probability

MA.E.1.4.1 – The student interprets data that has been collected, organized, and displayed in charts, tables, and plots.

Science

How Living Things Interact with Their Environment

SC.G.2.4.5 – The student understands that the amount of life any environment can support is limited and that human activities can change the flow of energy and reduce the fertility of the Earth.

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid human population growth, environmental degradation, and resource depletion).

Social Studies

People, Places, and Environments

SS.B.2.4.1 – The student understands how social, cultural, economic, and environmental factors contribute to the dynamic nature of regions.

Common Water

Pages 232-237

3-5

Science

How Living Things Interact with Their Environment

SC.G.2.2.1 – The student knows that all living things must compete for Earth's limited resources; organisms best adapted to compete for the available resources will be successful and pass their adaptations (traits) to their offspring.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

Social Studies

People, Places, and Environments

SS.B.2.2.2 – The student understands how the physical environment supports and constrains human activities.

6-8

Science

Processes that Shape the Earth

SC.D.2.3.1 – The student understands that quality of life is relevant to personal experience.

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

A Drop in the Bucket

Pages 238-241

6-8

Mathematics

Measurement

MA.B.1.3.4 – The student constructs, interprets, and uses scale drawings such as those based on number lines and maps to solve real-world problems.

Algebraic Thinking

MA.D.1.3.2 – The student creates and interprets tables, graphs, equations, and verbal descriptions to explain cause-and-effect relationships.

Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

Energetic Water

Pages 242-245

3-5

Science

Force and Motion

SC.C.2.2.1 – The student recognizes that forces of gravity, magnetism, and electricity operate simple machines.

SC.C.2.2.2 – The student knows that an object may move in a straight line at a constant speed, speed up, slow down, or change direction dependent on net force acting on the object.

The Nature of Science

SC.H.3.2.1 – The student understands that people, alone or in groups, invent new tools to solve problems and do work that affects aspects of life outside of science.

6-8

Science

Force and Motion

SC.C.2.3.4 – The student knows that simple machines can be used to change the direction or size of a force.

SC.C.2.3.6 – The student explains and shows the ways in which a net force can act on an object.

SC.C.2.3.7 – The student knows that gravity is a universal force that every mass exerts on every other mass.

Social Studies

Time, Continuity, and Change

SS.A.2.3.3 – The student understands important technological developments and how they influenced human society.

Great Water Journeys
Pages 246-253

6-8
Social Studies

Time, Continuity, and Change

SS.A.2.3.4 – The student understands the impact of geographical factors on the historical development of civilizations.

People, Places, and Environments

SS.B.1.3.1 – The student uses various map forms (including thematic maps) and other geographic representations, tools, and technologies to acquire, process, and report geographic information including patterns of land use, connections between places, and patterns and processes of migration and diffusion.

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

9-12
Social Studies

People, Places, and Environments

SS.B.2.4.2 – The student understands past and present trends in human migration and cultural interaction and their impact on physical and human systems.

SS.B.2.4.6 – The student understands the relationships between resources and the exploration, colonization, and settlement of different regions of the world.

Irrigation Interpretation
Pages 254-259

3-5
Science

Processes that Shape the Earth

SC.D.1.2.3 – The student knows that the water cycle is influenced by temperature, pressure, and the topography of the land.

How Living Things Interact with Their Environment

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

Social Studies

People, Places, and Environments

SS.B.1.2.2 – The student knows how regions are constructed according to physical criteria and human criteria.

SS.B.2.2.2 – The student understands how the physical environment supports and constrains human activities.

SS.B.2.2.3 – The student understands how human activity affects the physical environment.

6-8

Science

Processes that Shape the Earth

SC.D.1.3.4 – The student knows the ways in which plants and animals reshape the landscape (e.g., bacteria, fungi, worms, rodents, and other organisms add organic matter to the soil, increasing soil fertility, encouraging plant growth, and strengthening resistance to erosion).

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.2.3.1 – The student knows that some resources are renewable and others are nonrenewable.

SC.G.2.3.3 – The student knows that a brief change in the limited resources of an ecosystem may alter the size of a population or the average size of individual organisms and that long-term change may result in the elimination of animal and plant populations inhabiting the Earth.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

SC.H.1.3.2 – The student knows that the study of the events that led scientists to discoveries can provide information about the inquiry process and its effects.

SC.H.3.3.5 The student understands that contributions to the advancement of science, mathematics, and technology have been made by different kinds of people, in different cultures, at different times, and are an intrinsic part of the development o human culture.

Social Studies

Time, Continuity, and Change

SS.A.2.3.2 – The student knows how major historical developments have had an impact on the development of civilizations.

SS.A.2.3.3 – The student understands important technological developments and how they influenced human society.

SS.A.2.3.4 – The student understands the impact of geographical factors on the historical development of civilizations.

People, Places, and Environments

SS.B.1.3.5 – The student knows ways in which the spatial organization of a society changes over time.

SS.B.2.3.4 – The student understands how the landscape and society change as a consequence of shifting from a dispersed to a concentrated settlement form.

The Long Haul

Pages 260-261

K-2

Mathematics

Number Sense, Concepts, and Operations

MA.A.4.1.1 – The student provides and justifies estimates for real-world quantities.

Social Studies

Time, Continuity, and Change

SS.A.1.1.1 – The student compares everyday life in different places and times and understands that people, places, and things change over time.

3-5

Mathematics

Measurement

MA.B.3.2.1 – The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.

Nature Rules!

Pages 262-266

6-8

Language Arts

Writing

LA.B.1.3.2 – The student drafts and revises writing that: is focused, purposeful, and reflects insight into the writing situation; conveys a sense of completeness and wholeness with adherence to the main idea; has an organizational pattern that provides for a logical progression of ideas; has support that is substantial, specific, relevant, concrete, and/or illustrative; demonstrates a commitment to and an involvement with the subject; has clarity in presentation of ideas; uses creative writing strategies appropriate to the purpose of the paper; demonstrates a command of language (word choice) with freshness of expression; has varied sentence structure and sentences that are complete except when fragments are used purposefully; and has few, if any, convention errors in mechanics, usage, and punctuation.

LA.B.1.3.3 – The student produces final documents that have been edited for: correct spelling; correct punctuation, including commas, colons, and semicolons; correct capitalization; effective sentence structure; correct common usage, including subject/verb agreement, common noun/pronoun agreement, common possessive forms, and with a variety of sentence structures, including parallel structure; and correct formatting.

Mathematics

Measurement

MA.B.3.3.1 – The student solves real-world and mathematical problems involving estimates of measurements including length, time, weight/mass, temperature, money, perimeter, area, and volume, in either customary or metric units.

Science

The Nature of Science

SC.H.2.3.1 – The student recognizes that patterns exist within and across systems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

9-12

Language Arts

Writing

LA.B.1.4.2 – The student drafts and revises writing that: is focused, purposeful, and reflects insight into the writing situation; has an organizational pattern that provides for a logical progression of ideas; has effective use of transitional devices that contribute to a sense of completeness; has support that is substantial, specific, relevant, and concrete; demonstrates a commitment to and involvement with the subject; uses creative writing strategies as appropriate to the purposes of the paper; demonstrates a mature command of language with freshness of expression; has varied sentence structure; has few, if any, convention errors in mechanics, usage, punctuation, and spelling.

LA.B.1.4.3 – The student produces final documents that have been edited for: correct spelling; correct punctuation, including commas, colons, and common use of semicolons; correct capitalization; correct sentence formation; correct instances of possessives, subject/verb agreement, instances of noun/pronoun agreement, and the intentional use of fragments for effect; and correct formatting that appeals to readers, including appropriate use of a variety of graphics, tables, charts, and illustrations in both standard and innovative forms.

Science

How Living Things Interact with Their Environment

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid human population growth, environmental degradation, and resource depletion).

Sum of the Parts

Pages 267-270

3-5

Science

Processes that Shape the Earth

SC.D.2.2.1 – The student knows that using, recycling, and reducing the use of natural resources improve and protect the quality of life.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.3 – The student knows that before a group of people build something or try something new, they should determine how it may affect other people.

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Water Meter
Pages 271-273

3-5
Mathematics

Measurement

MA.B.3.2.1 – The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.

Science

The Nature of Matter

SC.A.1.2.1 – The student determines that the properties of materials (e.g., density and volume) can be compared and measured (e.g., using rulers, balances, and thermometers).

6-8
Mathematics

Measurement

MA.B.2.3.1 – The student uses direct (measured) and indirect (not measured) measures to compare a given characteristic in either metric or customary units.

Water Works
Pages 274-278

3-5
Science

How Living Things Interact with Their Environment

SC.G.2.2.2 – The student knows that the size of a population is dependent upon the available resources within its community.

Social Studies

Economics

SS.D.1.2.2 – The student understands that scarcity of resources requires choices on many levels, from the individual to societal.

6-8
Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Where Are the Frogs?

Pages 279-286

6-8

Language Arts

Reading

LA.A.2.3.6 – The student uses a variety of reference materials, including indexes, magazines, newspapers, and journals; and tools, including card catalogs and computer catalogs, to gather information for research topics.

Science

The Nature of Matter

SC.A.2.3.2 – The student knows the general properties of the atom (a massive nucleus of neutral neutrons and positive protons surrounded by a cloud of negative electrons) and accepts that single atoms are not visible.

How Living Things Interact with Their Environment

SC.G.2.3.3 – The student knows that a brief change in the limited resources of an ecosystem may alter the size of a population or the average size of individual organisms and that long-term change may result in the elimination of animal and plant populations inhabiting the Earth.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

AfterMath

Pages 289-292

6-8

Mathematics

Measurement

MA.B.3.3.1 – The student solves real-world and mathematical problems involving estimates of measurements including length, time, weight/mass, temperature, money, perimeter, area, and volume, in either customary or metric units.

Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

Back to the Future
Pages 293-299

6-8

Mathematics

Measurement

MA.B.1.3.3 – The student understands and describes how the change of a figure in such dimensions as length, width, height, or radius affects its other measurements such as perimeter, area, surface area, and volume.

Science

Force and Motion

SC.C.1.3.1 – The student knows that the motion of an object can be described by its position, direction of motion, and speed.

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

9-12

Mathematics

Measurement

MA.B.2.4.2 – The student solves real-world problems involving rated measures (miles per hour, feet per second).

The CEO
Pages 300-302

9-12

Science

How Living Things Interact with Their Environment

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid population growth, environmental degradation, and resource depletion).

Social Studies

People, Places, and Environments

SS.B.2.4.4 – The student understands the global impact of human changes in the physical environment.

SS.B.2.4.7 – The student understands the concept of sustainable development.

Dust Bowls and Failed Levees
Pages 303-306

9-12

Language Arts

Reading

LA.A.2.4.2 – The student determines the author's purpose and point of view and their effects on the text.

Writing

LA.B.1.4.2 – The student drafts and revises writing that: is focused, purposeful, and reflects insight into the writing situation; has an organizational pattern that provides for a logical progression of ideas; has effective use of transitional devices that contribute to a sense of completeness; has support that is substantial, specific, relevant, and concrete; demonstrates a commitment to and involvement with the subject; uses creative writing strategies as appropriate to the purposes of the paper; demonstrates a mature command of language with freshness of expression; has varied sentence structure; has few, if any, convention errors in mechanics, usage, punctuation, and spelling.

LA.B.1.4.3 – The student produces final documents that have been edited for: correct spelling; correct punctuation, including commas, colons, and common use of semicolons; correct capitalization; correct sentence formation; correct instances of possessives, subject/verb agreement, instances of noun/pronoun agreement, and the intentional use of fragments for effect; and correct formatting that appeals to readers, including appropriate use of a variety of graphics, tables, charts, and illustrations in both standard and innovative forms.

Every Drop Counts
Pages 307-310

3-5

Language Arts

Reading

LA.A.2.2.5 – The student reads and organizes information for a variety of purposes, including making a report, conducting interviews, taking a test, and performing an authentic task.

Mathematics

Measurement

MA.B.1.2.2 – The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

Science

The Nature of Matter

SC.A.1.2.1 – The student determines that the properties of materials (e.g., density and volume) can be compared and measured (e.g., using rulers, balances, and thermometers).

Processes that Shape the Earth

SC.D.2.2.1 – The student knows that using, recycling, and reducing the use of natural resources improve and protect the quality of life.

6-8

Language Arts

Reading

LA.A.2.3.6 – The student uses a variety of reference materials, including indexes, magazines, newspapers, and journals; and tools, including card catalogs and computer catalogs, to gather information for research topics.

Mathematics

Measurement

MA.B.4.3.1 – The student selects appropriate units of measurement and determines and applies significant digits in a real-world context. (Significant digits should relate to both instrument precision and to the least precise unit of measurement.)

Science

How Living Things Interact with Their Environment

SC.G.2.3.1 – The student knows that some resources are renewable and others are nonrenewable.

A Grave Mistake

Pages 311-315

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

The Nature of Science

SC.H.1.3.1 – The student knows that scientific knowledge is subject to modification as new information challenges prevailing theories and as a new theory leads to looking at old observations in a new way.

Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12

Mathematics

Data Analysis and Probability

MA.E.1.4.1 **–** The student interprets data that has been collected, organized, and displayed in charts, tables, and plots.

Science

Processes that Shape the Earth

SC.D.2.4.1 – The student understands the interconnectedness of the systems on Earth and the quality of life.

Health Education

Health Literacy

HE.A.1.4.4 **–** The student understands how the environmental conditions of the community influence the health of individuals.

Humpty Dumpty
Pages 316-321

3-5

Science

How Living Things Interact with Their Environment

SC.G.1.2.1 – The student knows ways that plants, animals, and protists interact.

SC.G.2.2.2 – The student knows that the size of a population is dependent upon the available resources within its community.

SC.G.2.2.3 – The student understands that changes in the habitat of an organism may be beneficial or harmful.

The Nature of Science

SC.H.3.2.3 – The student knows that before a group of people build something or try something new, they should determine how it may affect other people.

Social Studies

People, Places, and Environments

SS.B.2.2.3 – The student understands how human activity affects the physical environment.

6-8

Science

Processes that Shape the Earth

SC.D.1.3.3 – The student knows how conditions that exist in one system influence the conditions that exist in other systems.

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

SC.G.2.3.1 – The student knows that some resources are renewable and others are nonrenewable.

SC.G.2.3.3 – The student knows that a brief change in the limited resources of an ecosystem may alter the size of a population or the average size of individual organisms and that long-term change may result in the elimination of animal and plant populations inhabiting the Earth.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

Macroinvertebrate Mayhem

Pages 322-327

3-5

Science

How Living Things Interact with Their Environment

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

SC.G.2.2.1 – The student knows that all living things must compete for Earth's limited resources; organisms best adapted to compete for the available resources will be successful and pass their adaptations (traits) to their offspring.

SC.G.2.2.3 – The student understands that changes in the habitat of an organism may be beneficial or harmful.

Social Studies

People, Places, and Environments

SS.B.2.2.3 – The student understands how human activity affects the physical environment.

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human actions on the Earth's systems.

Processes of Life

SC.F.1.3.7 – The student knows that behavior is a response to the environment and influences growth, development, maintenance, and reproduction.

How Living Things Interact with Their Environment

SC.G.1.3.2 – The student knows that biological adaptations include changes in structures, behaviors, or physiology that enhance reproductive success in a particular environment.

SC.G.1.3.3 – The student understands that the classification of living things is based on a given set of criteria and is a tool for understanding biodiversity and interrelationships.

SC.G.2.3.3 – The student knows that a brief change in the limited resources of an ecosystem may alter the size of a population or the average size of individual organisms and that long-term change may result in the elimination of animal and plant populations inhabiting the Earth.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.

Money Down the Drain
Pages 328-332

3-5

Mathematics

Number Sense, Concepts, and Operations

MA.A.4.2.1 – The student uses and justifies different estimation strategies in a real-world problem situation and determines the reasonableness of results of calculations in a given problem situation.

Measurement

MA.B.1.2.2 – The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

MA.B.2.2.1 – The student uses direct (measured) and indirect (not measured) measures to calculate and compare measurable characteristics.

MA.B.3.2.1 – The student solves real-world problems involving estimates of measurements, including length, time, weight, temperature, money, perimeter, area, and volume.

MA.B.4.2.2 – The student selects and uses appropriate instruments and technology, including scales, rulers, thermometers, measuring cups, protractors, and gauges, to measure in real-world situations.

Science

The Nature of Science

SC.H.1.2.1 – The student knows that it is important to keep accurate records and descriptions to provide information and clues on causes of discrepancies in repeated experiments.

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8

Mathematics

Number Sense, Concepts, and Operations

MA.A.4.3.1 – The student uses estimation strategies to predict results and to check the reasonableness of results.

Measurement

MA.B.2.3.1 – The student uses direct and indirect measures to compare a given characteristic in either metric or customary units.

MA.B.4.3.1 – The student selects appropriate units of measurement and determines and applies significant digits in a real-world context.

Science

The Nature of Science

SC.H.1.3.5 – The student knows that a change in one or more variables may alter the outcome of an investigation.

The Price Is Right

Pages 333-337

9-12

Mathematics

Measurement

MA.B.2.4.1 – The student selects and uses direct (measured) or indirect (not measured) methods of measurement as appropriate.

Social Studies

Economics

SS.D.1.4.1 – The student understands how many financial and nonfinancial factors (e.g., cultural traditions, profit, and risk) motivate consumers, producers, workers, savers, and investors to allocate their scarce resources differently.

The Pucker Effect

Pages 338-343

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12

Science

How Living Things Interact with Their Environment

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid population growth, environmental degradation, and resource depletion).

The Nature of Science

SC.H.1.4.1 – The student knows that investigations are conducted to explore new phenomena, to check on previous results, to test how well a theory predicts, and to compare different theories.

SC.H.3.4.3 – The student knows that scientists can bring information, insights, and analytical skills to matters of public concern and help people understand the possible causes and effects of events.

Health Education

Health Literacy

HE.A.1.4.4 – The student understands how the environmental conditions of the community influence the health of individuals.

Reaching Your Limits
Pages 344-347

3-5
Mathematics

Measurement

MA.B.1.2.2 – The student solves real-world problems involving length, weight, perimeter, area, capacity, volume, time, temperature, and angles.

MA.B.2.2.2 – The student selects and uses appropriate standard and nonstandard units of measurement, according to type and size.

Science

The Nature of Matter

SC.A.1.2.5 – The student knows that materials made by chemically combining two or more substances may have properties that differ from the original materials.

How Living Things Interact with Their Environment

SC.G.1.2.2 – The student knows that living things compete in a climatic region with other living things and that structural adaptations make them fit for an environment.

SC.G.1.2.7 – The student knows that variations in light, water, temperature, and soil content are largely responsible for the existence of different kinds of organisms and population densities in an ecosystem.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.2 – The student knows that data are collected and interpreted in order to explain an event or concept.

6-8
Mathematics

Measurement

MA.B.1.3.3 – The student understands and describes how the change of a figure in such dimensions as length, width, height, or radius affects its other measurements such as perimeter, area, surface area, and volume.

MA.B.2.3.1 – The student uses direct (measured) and indirect (not measured) measures to compare a given characteristic in either metric or customary units.

Sparkling Water
Pages 348-352

6-8
Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12

Science

How Living Things Interact with Their Environment

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid population growth, environmental degradation, and resource depletion).

Health Education

Health Literacy

HE.A.1.4.4 – The student understands how the environmental conditions of the community influence the health of individuals.

HE.A.1.4.7 – The student understands how public health policies and government regulations influence health conditions.

Super Bowl Surge

Pages 353-359

3-5

Science

How Living Things Interact with Their Environment

SC.G.2.2.2 – The student knows that the size of a population is dependent upon the available resources within its community.

The Nature of Science

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

SC.H.3.2.3 – The student knows that before a group of people build something or try something new, they should determine how it may affect other people.

Health Education

Health Literacy

HE.A.1.2.5 – The student knows the ways in which the environment impacts health.

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.1.3.4 – The student knows that the interactions of organisms with each other and with the nonliving parts of their environments result in the flow of energy and the cycling of matter throughout the system.

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

9-12

Science

How Living Things Interact with Their Environment

SC.G.2.4.4 – The student knows that the world ecosystems are shaped by physical factors that limit their productivity.

SC.G.2.4.6 – The student knows the ways in which humans today are placing their environmental support systems at risk (e.g., rapid population growth, environmental degradation, and resource depletion).

Social Studies

People, Places, and Environments

SS.B.2.4.7 – The student understands the concept of sustainable development.

Health Education

Health Literacy

HE.A.1.4.4 – The student understands how the environmental conditions of the community influence the health of individuals.

Wet-Work Shuffle

Pages 360-364

3-5

Science

The Nature of Science

SC.H.2.2.1 – The student knows that natural events are often predictable and logical.

Health Education

Health Literacy

HE.A.1.2.5 – The student knows the ways in which the environment impacts health.

6-8

Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Health Education

Health Literacy

HE.A.1.3.5 – The student understands the relationship between environment and personal health.

Choices and Preferences, Water Index
Pages 367-372

6-8
Mathematics

Algebraic Thinking

MA.D.1.3.2 – The student creates and interprets tables, graphs, equations, and verbal descriptions to explain cause-and-effect relationships.

Data Analysis and Probability

MA.E.1.3.1 – The student collects, organizes, and displays data in a variety of forms, including tables, line graphs, charts, bar graphs, to determine how different ways of presenting data can lead to different interpretations.

Cold Cash in the Icebox
Pages 373-376

K-2
Mathematics

Measurement

MA.B.1.1.1 – The student uses and describes basic measurement concepts including length, weight, digital and analog time, temperature, and capacity.

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

SC.A.1.1.3 – The student verifies that things can be done to materials to change some of their physical properties (e.g., cutting, heating, and freezing), but not all materials respond the same way (e.g., heating causes water to boil and sugar to melt).

The Nature of Science

SC.H.1.1.4 – The student knows that people use scientific processes including hypotheses, making inferences, and recording and communicating data when exploring the natural world.

3-5
Mathematics

Measurement

MA.B.2.2.1 – The student uses direct (measured) and indirect (not measured) measures to calculate and compare measurable characteristics.

Science

The Nature of Matter

SC.A.1.2.2 – The student knows that common materials (e.g., water) can be changed from one state to another by heating and cooling.

Energy

SC.B.1.2.6 – The student knows ways that heat can move from one object to another.

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

SC.H.1.2.4 – The student knows that to compare and contrast observations and results is an essential skill in science.

SC.H.1.2.5 – The student knows that a model of something is different from the real thing, but can be used to learn something about the real thing.

6-8

Science

The Nature of Matter

SC.A.1.3.4 – The student knows that atoms in solids are close together and do not move around easily; in liquids, atoms tend to move farther apart; in gas, atoms are quite far apart and move around freely.

Energy

SC.B.1.3.5 – The student knows the processes by which thermal energy tends to flow from a system of higher temperature to a system of lower temperature.

Dilemma Derby

Pages 377-381

6-8

Science

Processes that Shape the Earth

SC.D.2.3.2 – The student knows the positive and negative consequences of human action on the Earth's systems.

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

Economics

SS.D.1.3.3 – The student understands the variety of factors necessary to consider when making wise consumer decisions.

9-12

Social Studies

Economics

SS.D.1.4.1 – The student understands how many financial and nonfinancial factors (e.g., cultural traditions, profit, and risk) motivate consumers, producers, workers, savers, and investors to allocate their scarce resources differently.

Easy Street

Pages 382-387

6-8

Mathematics

Number Sense, Concepts, and Operations

MA.A.4.3.1 – The student uses estimation strategies to predict results and to check the reasonableness of results.

Measurement

MA.B.2.3.2 – The student solves problems involving units of measure and converts answers to a larger or smaller unit within either the metric or customary system.

Science

Processes that Shape the Earth

SC.D.2.3.1 – The student understands that quality of life is relevant to personal experience.

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Hot Water

Pages 388-391

9-12

Language Arts

Listening, Viewing, and Speaking

LA.C.3.4.1 – The student uses volume, stress, pacing, enunciation, eye contact, and gestures that meet the needs of the audience and topic.

LA.C.3.4.3 – The student uses, details, illustrations, analogies, and visual aids to make oral presentations that inform, persuade, or entertain.

LA.C.3.4.4 – The student applies oral communication skills to interviews, group presentations, formal presentations, and impromptu situations.

LA.C.3.4.5 – The student develops and sustains a line of argument and provides appropriate support.

Pass the Jug

Pages 392-396

6-8

Social Studies

People, Places, and Environments

SS.B.2.3.4 – The student understands how the landscape and society change as a consequence of shifting from a dispersed to a concentrated settlement form.

Perspectives

Pages 397-399

9-12

Social Studies

Government and the Citizen

SS.C.1.4.4 – The student understands the role of special interest groups, political parties, the media, public opinion, and majority/minority conflicts on the development of public policy and the political process.

Water: Read All About It!

Pages 400-402

6-8

Language Arts

Writing

LA.B.1.3.1 – The student organizes information before writing according to the type and purpose of writing.

LA.B.1.3.2 – The student drafts and revises writing that: is focused, purposeful, and reflects insight into the writing situation; conveys a sense of completeness and wholeness with adherence to the main idea; has an organizational pattern that provides for a logical progression of ideas; has support that is substantial, specific, relevant, concrete, and/or illustrative; demonstrates a commitment to and an involvement with the subject; has clarity in presentation of ideas; uses creative writing strategies appropriate to the purpose of the paper; demonstrates a command of language (word choice) with freshness of expression; has varied sentence structure and sentences that are complete except when fragments are used purposefully; and has few, if any, convention errors in mechanics, usage, and punctuation.

LA.B.1.3.3 – The student produces final documents that have been edited for: correct spelling; correct punctuation, including commas, colons, and semicolons; correct capitalization; effective sentence structure; correct common usage, including subject/verb agreement, common noun/pronoun agreement, common possessive forms, and with a variety of sentence structure, including parallel structure; and correct formatting.

LA.B.2.3.1 – The student writes text, notes, outlines, comments, and observations that demonstrate comprehension of content and experiences from a variety of media.

LA.B.2.3.3 – The student selects and uses appropriate formats for writing, including narrative, persuasive, and expository formats, according to the intended audience, purpose, and occasion.

9-12

Language Arts

Writing

LA.B.1.4.1 – The student selects and uses appropriate prewriting strategies, such as brainstorming, graphic organizers, and outlines.

LA.B.1.4.2 – The student drafts and revises writing that: is focused, purposeful, and reflects insight into the writing situation; has an organizational pattern that provides for a logical progression of ideas; has effective use of transitional devices that contribute to a sense of completeness; has support that is substantial, specific, relevant, and concrete; demonstrates a commitment to and involvement with the subject; uses creative writing strategies as appropriate to the purposes of the paper; demonstrates a mature command of language with freshness of expression; has varied sentence structure; has few, if any, convention errors in mechanics, usage, punctuation, and spelling.

LA.B.1.4.3 – The student produces final documents that have been edited for: correct spelling; correct punctuation, including commas, colons, and common use of semicolons; correct capitalization; correct sentence formation; correct instances of possessives, subject/verb agreement, instances of noun/pronoun agreement, and the intentional use of fragments for effect; and correct formatting that appeals to readers, including appropriate use of a variety of graphics, tables, charts, and illustrations in both standard and innovative forms.

LA.B.2.4.3 – The student writes fluently for a variety of occasions, audiences, and purposes, making appropriate choices regarding style, tone, level of detail, and organization.

Language

LA.D.2.4.5 – The student critically analyzes specific elements of mass media with regard to the extent to which they enhance or manipulate information.

Water Bill of Rights

Pages 403-406

6-8

Social Studies

Government and the Citizen

SS.C.1.3.1 – The student knows the essential ideas of American constitutional government that are expressed in the Declaration of Independence, the Constitution, the Federalist Papers, and other writings.

SS.C.1.3.6 – The student understands the importance of the rule of law in establishing limits on both those who govern and the governed, protecting individual rights, and promoting the common good.

SS.C.2.3.7 – The student understands current issues involving rights that affect local, national, or international political, social, and economic systems.

9-12

Social Studies

Government and the Citizen

SS.C.1.4.2 – The student understands the ideas that led to the creation of limited government in the United States (e.g., ideas of natural rights philosophy, and the concept of popular sovereignty).

SS.C.1.4.3 – The student understands how the overall design and specific features of the Constitution prevent the abuse of power by aggregating power at the national, state, and local levels; dispersing power among different levels of government; and using a system of checks and balances (e.g., federalism).

SS.C.2.4.3 – The student understands issues of personal concern: the rights and responsibilities of the individual under the U.S. Constitution, the importance of civil liberties, the role of conflict resolution and compromise, and issues involving ethical behavior in politics.

SS.C.2.4.7 – The student knows the points at which citizens can monitor or influence the process of public policy formation.

Water Concentration

Pages 407-412

3-5

Science

The Nature of Science

SC.H.3.2.1 – The student understands that people, alone or in groups, invent new tools to solve problems and do work that affects aspects of life outside of science.

SC.H.3.2.4 – The student knows that through the use of science processes and knowledge, people can solve problems, make decisions, and form new ideas.

6-8

Social Studies

Time, Continuity, and Change

SS.A.2.3.3 – The student understands important technological developments and how they influenced human society.

Water Court

Pages 413-420

9-12

Social Studies

Government and the Citizen

SS.C.2.4.3 – The student understands issues of personal concern: the rights and responsibilities of the individual under the U.S. Constitution, the importance of civil liberties, the role of conflict resolution and compromise, and issues involving ethical behavior in politics.

SS.C.2.4.5 – The student understands how personal, political, and economic rights are secured by constitutional government and by such means as the rule of law, checks and balances, an independent judiciary, and a vigilant citizenry.

Water Crossings

Pages 421-424

3-5

Social Studies

People, Places, and Environments

SS.B.2.2.2 – The student understands how the physical environment supports and constrains human activities.

6-8

Social Studies

People, Places, and Environments

SS.B.1.3.5 – The student knows ways in which the spatial organization of a society changes over time.

SS.B.2.3.1 – The student understands the patterns and processes of migration and diffusion throughout the world.

SS.B.2.3.4 – The student understands how the landscape and society change as a consequence of shifting from a dispersed to a concentrated settlement form.

SS.B.2.3.7 – The student knows how various human systems throughout the world have developed in response to conditions in the physical environment.

9-12

Social Studies

People, Places, and Environments

SS.B.2.4.5 – The student knows how humans overcome “limits to growth” imposed by physical systems.

What's Happening?
Pages 425-428

K-2
Language Arts

Listening, Viewing, and Speaking

LA.C.1.1.1 – The student listens for a variety of informational purposes, including curiosity, pleasure, getting directions, performing tasks, solving problems, and following rules.

LA.C.1.1.3 – The student carries on a conversation with another person, seeking answers and further explanations of the other's ideas through questioning and answering.

Science

The Nature of Science

SC.H.1.1.5 – The student uses the senses, tools, and instruments to obtain information from his or her surroundings.

3-5
Language Arts

Reading

LA.A.2.2.6 – The student recognizes the difference between fact and opinion presented in a text.

Listening, Viewing, and Speaking

LA.C.1.2.4 – The student listens attentively to the speaker, including making eye contact and facing the speaker.

Science

The Nature of Science

SC.H.1.2.2 – The student knows that a successful method to explore the natural world is to observe and record, and then analyze and communicate the results.

6-8
Language Arts

Listening, Viewing, and Speaking

LA.C.1.3.1 – The student listens and uses information gained for a variety of purposes, such as gaining information from interviews, following directions, and pursuing a personal interest.

LA.C.1.3.4 – The student uses responsive listening skills, including paraphrasing, summarizing, and asking questions for elaboration and clarification.

Whose Problem Is It?
Pages 429-432

6-8
Science

How Living Things Interact with Their Environment

SC.G.2.3.4 – The student understands that humans are a part of an ecosystem and their activities may deliberately or inadvertently alter the equilibrium in ecosystems.

Social Studies

People, Places, and Environments

SS.B.1.3.6 – The student understands ways in which regional systems are interconnected.

SS.B.2.3.6 – The student understands the environmental consequences of people changing the physical environment in various world locations.
SS.B.2.3.9 – The student understands how the interaction between physical and human systems affects current conditions on Earth.

9-12

Science

How Living Things Interact with Their Environment

SC.G.1.4.1 – The student knows of the great diversity and interdependence of living things.

Social Studies

People, Places, and Environments

SS.B.2.4.4 – The student understands the global impact of human changes in the physical environment.

Raining Cats and Dogs

Pages 435-441

3-5

Language Arts

Language

LA.D.2.2.1 – The student understands that word choices can shape reactions, perception, and beliefs.

The Rainstick

Pages 442-445

3-5

Visual Arts

Skills and Techniques

VA.A.1.2.2 – The student uses control in handling tools and materials in a safe and responsible manner.
VA.A.1.2.3 – The student knows the effects and functions of using various organizational elements and principles of design when creating works of art.

Water Celebration

Pages 446-449

3-5

Dance

Cultural and Historical Connections

DA.C.1.2.3 – The student understands the role of dance in different cultures.

Music

Applications to Life

MU.E.1.2.2 – The student understands the relationship between music and other subjects (e.g., between folk songs and historical events).

6-8

Dance

Applications to Life

DA.E.2.3.1 – The student understands the ways in which dance and other disciplines can express similar ideas (e.g., how they can "comment" on political and social issues).

wAteR in moTion

Pages 450-453

K-2

Science

The Nature of Matter

SC.A.1.1.2 – The student recognizes that the same material can exist in different states.

Energy

SC.B.1.1.1 – The student knows that the sun supplies heat and light energy to Earth.

Music

Aesthetic and Critical Analysis

MU.D.2.1.1 – The student identifies simple criteria for the evaluation of performances and compositions.

Applications to Life

MU.E.1.1.2 – The student understands how music is related to other subjects.

MU.E.2.1.1 – The student knows how music is used in daily life (e.g., for entertainment or relaxation).

Visual Arts

Skills and Techniques

VA.A.1.1.4 – The student uses good craftsmanship when producing works of art.

Water Messages in Stone

Pages 454-456

K-2

Visual Arts

Skills and Techniques

VA.A.1.1.1 – The student uses two-dimensional and three-dimensional media, techniques, tools, and processes to depict works of art from personal experiences, observation, or imagination.

VA.A.1.1.4 – The student uses good craftsmanship when producing works of art.

Creation and Communication

VA.B.1.1.1 – The student knows how subject matter, symbols, and ideas are used to communicate meaning in works of art.

Cultural and Historical Connections

VA.C.1.1.2 – The student understands how artists generate and express ideas according to their individual, cultural, and historical experiences.

3-5

Visual Arts

Skills and Techniques

VA.A.1.2.1 – The student uses and organizes two-dimensional and three-dimensional media, techniques, tools, and processes to produce works of art that are derived from personal experience, observation, or imagination.

VA.A.1.2.4 – The student uses good craftsmanship in a variety of two-dimensional and three-dimensional media.

Cultural and Historical Connections

VA.C.1.2.2 – The student understands how artists have used visual languages and symbol systems through time and across cultures.

6-8

Visual Arts

Skills and Techniques

VA.A.1.3.4 – The student creates two-dimensional and three-dimensional works of art that reflect competency and craftsmanship.

Creation and Communication

VA.B.1.3.1 – The student knows how different subjects, themes, and symbols (through context, value, and aesthetics) convey intended meanings or ideas in works of art.

Cultural and Historical Connections

VA.C.1.3.1 – The student understands and uses information from historical and cultural themes, trends, styles, periods of art, and artists.

9-12

Visual Arts

Skills and Techniques

VA.A.1.4.4 – The student uses effective control of media, techniques, and tools when communicating an idea in both two-dimensional and three-dimensional works of art.

Creation and Communication

VA.B.1.4.1 – The student applies various subjects, symbols, and ideas in works of art.

Water Write

Pages 457-459

K-2

Language Arts

Reading

LA.A.2.1.1 – The student determines the main idea or essential message from text and identifies supporting information.

3-5

Language Arts

Writing

LA.B.2.2.3 – The student writes for a variety of occasions, audiences, and purposes.

Literature

LA.E.2.2.3 – The student responds to a work of literature by explaining how the motives of the characters or the causes of events compare with those in his or her own life.

LA.E.2.2.5 – The student forms his or her own ideas about what has been read in a literary text and uses specific information from the text to support these ideas.

6-8

Language Arts

Reading

LA.A.2.3.1 – The student determines the main idea or essential message in a text and identifies relevant details and facts and patterns of organization.

LA.A.2.3.2 – The student identifies the author's purpose and/or point of view in a variety of texts and uses the information to construct meaning.

Writing

LA.B.2.3.3 **–** The student selects and uses appropriate formats for writing, including narrative, persuasive, and expository formats, according to the intended audience, purpose, and occasion**.**

Literature

LA.E.2.3.2 – The student responds to a work of literature by interpreting selected phrases, sentences, or passages and applying the information to personal life.

9-12

Language Arts

Writing

LA.B.2.4.3 – The student writes fluently for a variety of occasions, audiences, and purposes, making appropriate choices regarding style, tone, level of detail, and organization.

Wish Book

Pages 460-464

3-5

Social Studies

Time, Continuity, and Change

SS.A.1.2.2 – The student uses a variety of methods and sources to understand history (such as interpreting diaries, letters, newspapers; and reading maps and graphs) and knows the difference between primary and secondary sources.

People, Places, and Environments

SS.B.2.2.3 – The student understands how human activity affects the physical environment.

Southwest Florida
Water Management District

Visit our Web site at **WaterMatters.org**.

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