



West Linn-Wilsonville Schools

EDUCATIONAL PROGRAM

**Skills, Concepts and Processes
for
Learning**

**SOCIAL/SCIENTIFIC STUDIES
Grades K-8**

Revised July 2002

Social/Scientific Studies

●●● Kindergarten ●●●

Social Studies: Me and My World

- Me, My Family and School
- People: Same and Different/Continuity and Change
- Where am I? / What are Symbols?

Science: Scale and Structure

- Properties of Matter
- Day and Night
- Plants and Animals
- Your Senses
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **kindergarten** children:

- formulate rules that help people stay safe and get along with each other
- recognize that people have rights and responsibilities
- create representations of actual places
- gather information from charts and graphs
- participate in classrooms as a member of a group
- identify one's own uniqueness and similarity to other group members
- understand and apply notions of order, change, pattern, and cycle to observations and experiments
- use the investigative processes of inquiry, observation, research, analysis, and communication
- participate in problem solving and decision making around current, significant issues

Social/Scientific Studies

●●● Grade 1 ●●●

Social Studies: My Place in the World

- School Days
- Living on Earth: The Land and the People
- My Country, My Heroes
- My School and Community

Science: Systems and Interactions

- Matter: Solids, Liquids, & Gases
- Weather
- Living Things: Basic Needs and Survival
- Parts and Systems
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **first grade** children:

- formulate rules that help people stay safe and get along with each other
- recognize that people have rights and responsibilities
- create maps to represent actual places
- gather information from charts, graphs and maps
- participate in classrooms as a member of a group
- identify one's own uniqueness and similarity to other group members
- understand and apply notions of order, change, and cycle to observations and experiments
- use the investigative processes of inquiry, observation, research, analysis, and communication
- participate in solving problems and making decisions regarding current, significant issues

Social/Scientific Studies

●●● Grade 2 ●●●

Social Studies: Communities Working Together

- Belonging to Groups and Communities
- People Working Together
- People in Time and Place

Science: Patterns of Change

- Balance and Motion
- Rocks and Soils
- Life Cycles
- Healthy Living
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **second grade** children:

- formulate rules that help people stay safe and get along with each other
- understand and use patterns as tools of organization
- use a variety of recording and organizational tools
- make inferences and predictions from evidence
- create and use maps to represent actual places
- gather information from charts, graphs and maps
- recognize the purpose, structure, and function of groups
- define relationships that support community life (i.e., global, ecological, regional, economic, historical, social, cultural)
- describe how geographical and geological qualities help define a community
- describe how communities over time define themselves through their behavior and are affected by technology
- identify the cause and effect relationship between two chronological events
- describe how diversity enriches a community and is essential for balance
- use the investigative processes of inquiry, observation, research, analysis, and communication
- participate in solving problems and making decisions regarding current, significant issues

Social/Scientific Studies

●●● Grade 3 ●●●

Social Studies: Caring for the Earth

- Where We Live – Geography of Oregon
- Communities Grow and Change
- People Make History
- Participating in a Democratic System

Science: Scale and Structure

- The Physics of Sound
- Earth Materials
- Solar System
- Human Body – Bones and Muscles
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of our predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **third grade** children:

- formulate rules that help people stay safe and get along with each other
- understand and use patterns as tools of organization (time, hierarchy, seasonal)
- use a variety of recording and organizational tools in combination
- make inferences, predictions, and generalizations from evidence
- create and use maps to represent actual places, including accurate features, multiple types of information, and directionality
- gather information from charts, graphs, and maps and cross-compare information
- recognize the purpose, structure, and functions of groups
- define relationships that support community life (i.e., global, ecological, regional, economic, historical, social, cultural)
- describe how geographical and geological qualities help define a community
- describe how communities over time define themselves through their behavior and are affected by technology
- identify the causes and effects of chronological events
- describe how diversity enriches a community and is essential for balance
- use multiple sources to verify and extend information
- use the investigative processes of inquiry, observation, research, analysis and communication
- participate in solving problems and making decisions regarding current, significant issues
- recognize that there are different ways of looking at issues

Social/Scientific Studies

●●● Grade 4 ●●●

WHEN CHILDREN ARE TAUGHT IN FOURTH AND FIFTH GRADE BLENDED CLASSROOMS, THE CONTENT IN SOCIAL STUDIES AND SCIENCE EXTENDS OVER TWO YEARS. AS **FOURTH GRADERS**, CHILDREN MAY BE ENGAGED IN ONE OF THE FOLLOWING GROUPS OF TOPICS:

Social Studies: United States

- Exploration
- Migration
- Inventions/Technologies

Science: Systems and Interactions

- Electricity and Magnetism
- Water and the Oceans
- Organisms and Environments
- Human Body – The Brain and Nerves
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of our predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **fourth grade** children:

- formulate rules that help people stay safe and get along with each other
- use a variety of recording and organizational tools in combination
- make inferences, predictions, and generalizations from evidence
- create and use maps to represent actual places, including accurate features, multiple types of information, and directionality
- gather information from charts, graphs, and maps and cross-compare information
- define relationships that support community life (i.e., global, ecological, regional, economic, historical, social, cultural)
- describe how geographical and geological qualities help define a community
- describe how communities over time define themselves through their behavior and are affected by technology
- describe the intended and unintended effects of technology on systems
- identify the smaller parts of a system that work together to perform a function
- explain how exploration has shaped and been shaped by boundaries
- describe how change in boundaries can come from and lead to conflict, risk, and resolution
- identify the progression from challenge to resolution
- identify the causes and effects of chronological events
- compare and contrast historical events
- use the investigative processes of inquiry, observation, research, analysis, and communication
- use multiple sources to verify and extend information
- participate in solving problems and making decisions regarding current, significant issues
- recognize that there are different ways of looking at issues

Social/Scientific Studies

●●● Grade 5 ●●●

WHEN CHILDREN ARE TAUGHT IN FOURTH AND FIFTH GRADE BLENDED CLASSROOMS, THE CONTENT IN SOCIAL STUDIES AND SCIENCE EXTENDS OVER TWO YEARS. AS **FIFTH GRADERS**, CHILDREN MAY BE ENGAGED IN ONE OF THE FOLLOWING GROUPS OF TOPICS:

Social Studies: United States

- Regions
- Economics
- Democracy and Government

Science: Patterns of Change

- Energy and Fuel
- Landforms
- Change Over Time
- Human Body – Digestion, Respiration, Circulation
- Safety

Children develop understanding of broad-based concepts through first-hand investigations, inquiry, perspective taking, the stories of our predecessors and contemporaries, and a commitment to serve the global community. As social/scientific investigators, **fifth grade** children:

- formulate rules that help people stay safe and get along with each other
- use a variety of recording and organizational tools in combination
- make inferences, predictions, and generalizations from evidence
- create and use maps to represent actual places, including accurate features, multiple types of information, and directionality
- gather information from charts, graphs, and maps and cross-compare information
- define relationships that support community life (i.e., global, ecological, regional, economic, historical, social, cultural)
- describe how geographical and geological qualities help define a community
- describe how communities over time define themselves through their behavior and are affected by technology
- describe the intended and unintended effects of technology on systems
- identify the smaller parts of a system that work together to perform a function
- explain how exploration has shaped and been shaped by boundaries
- describe how change in boundaries can come from and lead to conflict, risk, and resolution
- identify the progression from challenge to resolution
- identify the multiple causes and effects of chronological events
- compare and contrast historical events
- use the investigative processes of inquiry, observation, research, analysis, and communication
- use multiple sources to verify and extend information
- participate in solving problems and making decisions regarding current, significant issues
- recognize that there are different ways of looking at issues

Social/Scientific Studies

●●● Grade 6 ●●●

Science

Children develop understanding of the interrelated areas of scientific study as they explore questions about earth, life, and physical science. Using an inquiry-based approach, **sixth graders** will:

Concepts and Processes

The Role of the Scientist

- explore ways scientists differ in what and how they study science
- become familiar with and use the scientific method
- understand how scientists engage in research, decision-making, exploration, communication, and reflection
- understand how scientists develop questions to further understanding of scientific processes

Change

- identify causes and patterns of change
- evaluate the effects of change on the physical and biological environment
- explain how nature evolves and changes itself
- explain how animals change, adapt, and evolve
- identify ways in which humans have had an impact on weather and the natural environment
- predict changes in nature based on an understanding of changes in weather and plant and animal life

Force, Energy, and Motion

- understand and use means of measuring motion, force and energy
- compare forms of energy
- use simple machines to do work and apply mathematical equations to concepts of speed, force, and acceleration
- determine characteristics of magnetism
- describe interrelationships between magnetism and electricity
- identify examples of nature's electricity and magnetism and their uses
- understand the properties of magnets, electricity, and circuits and their applications

Cycles and Systems

- diagram and explain a cycle
- recognize and diagram the parts of a system and identify the interactions among those parts
- understand patterns of seasonal weather and climate
- describe the Earth's place in the solar system and the patterns of movement of objects within the solar system
- consider Earth's role and place in the universe
- explain how an understanding of cycles and systems and patterns allows us to predict weather

Models

- use models to explain how objects, events and/or processes work in a real world

Physical and Chemical Behaviors

- explore the physical and chemical properties of specific substances
- explore physical and chemical changes

Structure and Function

- describe physical and biological examples of how structure relates to function
- describe basic plant and animal structures and their functions
- contrast Earth to other planets in terms of its structure and function within the universe
- explain structure and function of celestial bodies
- describe the capabilities of simple machines in terms of their structure and function
- compare different types of life and their roles in the environment

Problem Solving

- participate in problem solving and decision making around current significant local and global issues
- use problem solving strategies to apply an understanding of the properties of magnets, electricity, and circuits to daily use
- use problem solving to show how speed, force, and acceleration are used in simple machines

Relationships

- describe cause and effect relationships in biological and physical systems
- describe the relationship between Earth and other celestial bodies
- describe relationships between climate, weather, and geography
- explain symbiotic relationships
- explore relationships between plant, animal, and human life and the role of each in our world
- describe relationships and interactions between animals, niches, competition, genetic fitness, and the environment

Effects and Uses of Technology

- describe the intended and unintended effects of technology on science progression
- understand ways in which scientists use technology to conduct research, gather and interpret data, and evaluate findings

Sixth Grade Skills

- ask questions and make predictions that are based on observations and can be explored through simple investigations
- design and conduct an investigation to answer questions or verify predictions
- analyze, interpret and summarize data from investigations
- report results through speaking, writing, graphs and charts
- identify and use appropriate lab equipment
- use metric/measurement systems of science
- demonstrate laboratory safety
- use technical reading and writing skills
- explore science specific formulas and symbols
- use technology to gain information and collect data
- discuss and debate scientific findings and interpretations
- develop questions to guide one's own inquiry

Social/Scientific Studies

●●● Grade 6 ●●●

Social Studies

World History: A Message of Ancient Days

- Geography and Time
- Pre-History
- River Valley Civilizations
- Hebrews, Greeks and Romans
- Christianity and the Fall of Rome

Children develop the disposition to be responsible global citizens through the study of history, geography, politics, economics, cultural, and ethnic diversity. As they build deeper levels of conceptual understanding and actively contribute to the knowledge base, **sixth grade** students:

- compare and contrast historical events
- describe the qualities, conditions, and circumstances of prehistoric cultures and their evolution
- identify the multiple causes and effects of chronological events
- describe how geographic and geologic qualities help define a community
- explain how exploration has influenced cultures and individuals
- define relationships that support community life (i.e., global, ecological, regional, economic, historical, social, and cultural)
- describe how the actions in one country can affect citizens in another country
- reflect empathetic and diverse perspectives across historical, environmental, social, and cultural contexts, issues, and events
- understand the implications of political processes on social justice and human rights
- describe how change in boundaries can come from and lead to conflict, risk, and resolution
- identify the smaller parts of a system that work together to perform a function
- use a variety of recording and organizational tools for data gathering, note taking, and research
- gather information from charts, graphs, and maps and cross-compare information
- use multiple sources to verify and extend information
- formulate hypothesis and make inferences, predictions, generalizations
- identify the location of key features on maps and globes
- create and use maps to represent actual places, including accurate features, multiple types of information, and directionality
- compare physical and cultural characteristics of Ancient Civilizations
- analyze the major political, economic, and cultural themes of World History through the Fall of the Roman Empire

Social/Scientific Studies

●●● Grade 7 ●●●

Science

Children develop understanding of how the interrelated areas of scientific study as they explore questions about earth, life, and physical science. Using an inquiry-based approach, **seventh graders** will:

Concepts and Processes

The Role of the Scientist

- explore the ways scientists differ in what they study and how they study science
- become familiar with and use the scientific method
- understand and begin to apply the ways in which scientists engage in research, decision-making, exploration, communication, and reflection
- recognize the basis and use of scientists' questions

Change

- evaluate evidence of physical and biological change over time
- identify examples of the ways scientific knowledge changes over time
- identify the constructive and destructive forces that shape and change the Earth's surface
- explain how cells change through reproduction, mutation, and evolution
- describe how changes in cells lead to diversity in living things
- describe how adaptations help an organism survive in its environment
- explain how human civilization has had an impact on, and changed the environment

Force and Motion

- describe how water moves, is stored and purified, and transfers heat geographically
- describe the movements of atoms and how this determines the form and interaction of all matter

Cycles and Systems

- describe the life cycle of an organism
- explain how the traits of an organism are passed from generation to generation
- explain how the properties of Earth's waters and the water cycle contribute to the quality of life on Earth

Models

- use models to make predictions and inferences about familiar and unfamiliar phenomena in the natural world

Physical and Chemical Behaviors

- identify the physical and chemical properties of specific substances
- explore common chemical relationships
- identify physical and chemical changes

Structure and Function

- describe and explain the structure and function of an organism in terms of cells, tissues, and organs
- compare and contrast structures and functions in physical and biological examples
- explain how the structure and function of each human body system is essential by itself and as part of an interdependent whole
- explain atomic structure, basic bonding, and the organization of the periodic table

Problem Solving

- participate in problem solving and decision making around current significant local and global issues

Relationships

- describe and explain the relationship between and interactions of organ systems
- identify the relationship between all living things and the environment
- explain the relationship between cells and the diversity of living things

Effects and Uses of Technology

- describe the intended and unintended effects of technology on science progression
- understand ways in which scientists use technology to conduct research, gather and interpret data, and evaluate findings

Seventh Grade Skills

- ask questions and make predictions that are based on observations and can be explored through simple investigations
- design and conduct an investigation to answer questions or verify predictions
- analyze, interpret, and summarize data from investigations
- report results through speaking, writing, graphs, and charts
- identify and use lab equipment
- expand the use of the metric/measurement systems of science
- demonstrate laboratory safety
- expand technical reading and writing skills
- use appropriate science specific formulas and symbols
- describe classification technique
- use technology to gain information and collect data
- discuss and debate scientific findings and interpretations
- develop and use questions to guide one's own inquiry

Social/Scientific Studies

●●● Grade 7 ●●●

Social Studies

World History: The Impact of Human Existence on Earth

- Geography
- Roman Empire
- The Middle Ages
- Africa and Islam
- The Renaissance
- Imperialism and Colonialism
- The Enlightenment

Children develop the disposition to be responsible global citizens through the study of history, geography, politics, economics, cultural and ethnic diversity. As they build deeper levels of conceptual understanding and actively contribute to the knowledge base, **seventh grade** students:

- compare and contrast historical, social and political factors contributing to the rise and fall of cultures
- compare and contrast the historical context, philosophic tenants, and present day influence of great world religions
- describe influences of classic Western societies on present day cultures
- describe changing social conventions and their influence on the human condition during the Middle Ages
- compare and contrast colonialism, independence and other modern problems in Asia and Africa
- describe major developments in world history from the Fall of the Roman Empire
- explain the importance of civic responsibility
- describe how government actions in one country can affect citizens in another country
- identify the location of key physical and political features on maps and globes
- compare physical and cultural characteristics of the regions of the world
- identify and describe transportation and communication networks affecting the flow of people, goods and ideas
- explain how human modification of the physical environment in one place affects other places
- explain how the interaction of supply and demand determines price
- explain the costs and benefits of economic choices regarding the allocation of resources
- compare data to determine differences of fact and opinion in clarifying an issue
- explain an event or issue from two or more points of view
- explain why perspectives among individuals and groups vary
- describe short-term and long-term consequences of alternative courses of action

Social/Scientific Studies

●●● Grade 8 ●●●

Science

Children develop understanding of the interrelated areas of scientific study as they explore questions about earth, life, and physical science. Using an inquiry-based approach, **eighth graders** will:

Concepts and Processes

The Role of the Scientist

- explore ways scientists differ in what and how they study science
- become familiar with and use the scientific method
- understand and begin to apply the ways in which scientists engage in research, decision-making, exploration, communication, and reflection
- recognize the basis and use of scientists' questions

Change

- describe and explain how scientific knowledge and processes have changed over time
- evaluate evidence of physical and biological changes over time
- describe and explain how living things have changed over geological time using fossils and other evidence
- describe how the Earth's surface changes over time
- describe how human civilization has changed the environment
- identify constructive and destructive forces that have changed Earth's surface

Force, Motion, and Energy

- explain how waves travel and transport energy
- describe how we see and hear things

Cycles and Systems

- identify and explain patterns of change in cycles and trends
- identify a system's inputs and outputs; explain the effects of changing the system's components
- identify the connections between all living things and the environment
- describe the cycles that lead to the renewal and depletion of Earth's resources

Models

- use models to make predictions and inferences about familiar and unfamiliar phenomena in the natural world

Physical and Chemical Behaviors

- compare and contrast the physical and chemical properties of specific substances
- explain common chemical relationships
- compare physical and chemical changes
- explain how our everyday lives are impacted by some basic chemical reactions
- describe how different kinds of matter interact with each other

Structure and Function

- compare and contrast structures and functions in physical and biological examples
- compare and contrast the properties and uses of Earth materials

Problem Solving

- participate in problem solving and decision making around current significant local and global issues

Effects and Uses of Technology

- describe the intended and unintended effects of technology on science progression
- understand ways in which scientists use technology to conduct research, gather and interpret data, and evaluate findings

Eighth Grade Skills

- ask questions and form hypotheses that are based on observations, scientific concepts, and can be explored through scientific investigations
- design and conduct a scientific investigation to answer questions or verify hypotheses
- analyze and summarize data including possible sources of error; explain results and offer reasonable and accurate interpretations and conclusions
- communicate and evaluate an investigation and findings through multiple modes
- expand uses of laboratory equipment and the art of measurement
- construct metric/measurement system conversions
- expand the use of laboratory safety techniques
- increase the proficient use of technical reading and writing
- expand the use of science specific formulas and symbols
- construct and interpret a variety of classification systems
- use technology to gain information and collect data
- discuss and debate scientific findings and interpretations
- develop, use, and evaluate questions to guide one's own inquiry

Social/Scientific Studies

●●● Grade 8 ●●●

Social Studies

United States History: Searching for a Better Life

- Geography
- Colonial Period
- Revolution
- Government and Constitution
- Westward Movement
- Civil War and Reconstruction
- Industrial Revolution and Reformers

Children develop the disposition to be responsible global citizens through the study of history, geography, politics, economics, cultural and ethnic diversity. As they build deeper levels of conceptual understanding and actively contribute to knowledge base, **eighth grade** students:

- represent dates and chronological sequences in history
- identify multiple causes of a single event and explain how a single event can impact more than one sphere of human activity
- describe change and continuity over time
- examine economic and technological developments and their impact on society
- interpret major events, issues and developments in United States history:
 - America in the beginning
 - the Constitution of the United States
 - emergence of sectional differences in northeast, south, and west
 - Civil War and reconstruction
 - rise of industrial America and closing of the frontier (Industrial Revolution)
- explain how legislative, executive and judicial powers are distributed and shared among the three branches of government
- describe the roles and relationships among local, state and federal government
- interpret the meaning of specific rights guaranteed in the U.S. Constitution, including liberty, free expression, privacy, due process and equal protection
- explain the importance of civic responsibilities (i.e., obeying the law, paying taxes, performing public service)
- describe how government actions in one country can affect citizens in another country
- identify the location of key physical and political features on maps and globes
- compare physical and cultural characteristics of the regions of the world
- identify and describe transportation and communication networks affecting the flow of people, goods and ideas
- explain how human modification of the physical environment in one place affects other places
- explain how the interaction of supply and demand determines price
- explain the costs and benefits of economic choices regarding the allocation of resources
- compare data to determine differences of fact and opinion in clarifying an issue
- explain an event or issue from two or more points of view
- explain why perspectives among individuals and groups vary
- describe short- and long-term consequences of alternative courses of action