

WV 21st Century Content Standards and Objective For Simple Inventions

Kindergarten

Social Studies

SS.S.G.04 Students will

- interpret and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places, and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and tools and assess techniques available for geographic study (Uses of Geography).

SS.O.K.04.04 compare and contrast the characteristics of weather and human adaptation:

- four seasons
- types of weather types of clothing

Science

SC.S.K.1 Students will

- demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- demonstrate the abilities and understanding necessary to do scientific inquiry.
demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

SC.O.K.1.05 use scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, or magnets).

SC.S.K.2 Students will

- demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives.
- demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.
apply knowledge, understanding and skills of science subject matter/concepts to daily life

experiences.

SC.O.K.2.12 observe and compare differences in earth materials.

SC.S.K.3 Students will

- recognize models as representations of real things.
- observe that changes occur gradually, repetitively, or randomly within the environment.
- listen and be tolerant of different viewpoints while working in collaborative groups.
- observe and identify the use of tools and appliances in everyday life.

SC.O.K.3.01 recognize that models are representations of real things.

SC.O.K.3.04 work in groups, listen to and be tolerant of different viewpoints.

1st Grade

Social Studies

SS.S.01.04 Students will

- interpret, and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society). point out geographic perspective and the tools and assess techniques available for geographic study (Uses of Geography)

SS.O.01.04.05 recognize and relate how climate/weather affects the way people live (e.g., food, clothing, shelter, recreation).

Science

SC.S.1.1 Students will

- demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- demonstrate the abilities and understanding necessary to do scientific inquiry. demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

SC.O.1.1.04 use scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, magnets, thermometer, seeds, or rocks).

S.C.S.1.3 Students will

- identify how the parts of a system interact,
- recognize and use models as representations of real things,
- demonstrate the ability to distinguish between natural and man-made objects,

- listen and be tolerant of different viewpoints while working in collaborative groups, and demonstrate the ability to evaluate the impact of different points of view on health, population, resources and environment practices.

SC.O.1.3.02 use models as representations of real things.

SC.O.1.3.04 listen to and be tolerant of different viewpoints while working in collaborative groups.

2nd Grade

Social Studies

SS.S.02.04 Students will

- interpret and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places, and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society). point out geographic perspective and the tools and assess techniques available for geographic study (Uses of Geography).

Science

SC.S.2.1 Students will

- demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- demonstrate the abilities and understanding necessary to do scientific inquiry. demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

SC.O.2.1.05 manipulate scientific instruments and everyday materials to investigate the natural world (e.g., hand lens, balance, thermometer, metric ruler, magnets, weather instruments, or calculators).

SC.S.2.3 Students will

- identify how the parts of a system interact.
- recognize and use models as representations of real things.
- observe that changes occur gradually, repetitively, or randomly within the environment.
- recognize that common objects and events incorporate science to solve human problems and enhance the quality of life.
- demonstrate the ability to listen to, be tolerant of, and evaluate the impact of different points of view on health, population, resources and environmental practices while working in collaborative groups.

SC.O.2.3.02 use models as representations of real things.

SC.O.2.3.05 listen to and be tolerant of different viewpoints while working in collaborative groups.

3rd grade

Social Studies

SS.S.03.04 Students will

- interpret and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and the tools and assess techniques available for geographic study (Uses of Geography).

SS.O.03.04.05 compare and contrast climate, weather and location with regard to people's clothing, food, shelter and jobs.

SS.O.03.04.06 relate how people affect and are affected by the various elements of the environment (e.g., water, soil, weather, climate, topography)

SS.S.03.05 Students will

- organize, analyze and compare historical events, distinguish cause-effect relationships, theorize alternative actions and outcomes, and anticipate future application (Chronology).
- use the processes and resources of historical inquiry to develop appropriate questions, gather and examine evidence, compare, analyze and interpret historical data (Skills and Application).
- examine, analyze and synthesize historical knowledge of major events, individuals, cultures and the humanities in West Virginia, the United States and the world (Culture and Humanities).
- use historical knowledge to analyze local, state, national and global interdependence (Interpretation and Evaluation). and
examine political institutions and theories that have developed and changed over time; and research and cite reasons for development and change (Political Institutions).

SS.O.03.05.03 compare and contrast present cultures to the cultures of people of other historical time periods (e.g., source of food, clothing, shelter, products used).

Learning Skills

21C.O.3-4.2.LS3 Student engages in a problem solving process that promotes questioning, planning investigations and finding answers and solutions.

Science

SC.S.3.1 Students will

- demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- demonstrate the abilities and understanding necessary to do scientific inquiry.

- demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

SC.O.3.1.07 use scientific instruments, technology, and everyday materials to investigate the natural world.

SC.S.3.2 Students will

- demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives.
- demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.
- apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.

SC.O.3.2.08 investigate the dissolving of solids in liquids.

SC.S.3.3 Students will

- identify how the parts of a system interact.
- recognize and use models as representations of real things.
- observe and identify patterns of change, consistency or regularity within the environment.
- demonstrate the ability to utilize technology to gather and organize data to communicate designs, results and conclusions.
- identify that a solution to a problem often creates new problems.
- demonstrate the ability to listen to, be tolerant of, and evaluate the impact of different points of view on health, population, resources and environmental practices while working in collaborative groups.

SC.O.3.3.02 use models as representations of real things.

SC.O.3.3.09 listen to and be tolerant of different viewpoints by engaging in collaborative activities and be willing to modify ideas when new and valid information is presented.

4th grade

Social Studies

SS.S.04.04 Students will

- interpret, and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and the tools and assess techniques available for geographic study (Uses of Geography).

SS.O.04.04.02 Analyze and assess the effects of and explain how people adapted to geographic factors (e.g., climate, mountains, bodies of water) on the following:

- transportation routes
- settlement patterns and population density
- culture (e.g., jobs, food, clothing, shelter, religion, government)
- interactions with others (local, national, global)

Learning Skills

21C.O.3-4.2.LS3 Student engages in a problem solving process that promotes questioning, planning investigations and finding answers and solutions.

Science

SC.S.4.1 Students will

- demonstrate an understanding of the history and nature of science as a human endeavor encompassing the contributions of diverse cultures, scientists, and careers.
- demonstrate the abilities and understanding necessary to do scientific inquiry. demonstrate the ability to think and act as scientists by engaging in active inquiries and investigations, while incorporating hands-on activities.

SC.O.4.1.07 use scientific instruments, technology and everyday materials to investigate the natural world.

SC.O.4.1.09 construct a hypothesis when provided a problem.

SC.S.4.2 Students will

- demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories, and models as delineated in the objectives.
- demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences. apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.

SC.S.4.3 Students will

- identify how the parts of a system interact.
- recognize and use models as representations of real things.
- observe and identify patterns of change, consistency or regularity within the environment.
- demonstrate the ability to utilize technology to gather and organize data to communicate designs, results and conclusions.
- identify that a solution to a problem often creates new problems. Demonstrate the ability to listen to, be tolerant of, and evaluate the impact of different points of view on health, population, resources and environmental practices while working in collaborative groups.

SC.O.4.3.09 listen to and be tolerant of different viewpoints by engaging in collaborative activities and modifying ideas when new and valid information is presented from a variety of resources.

5th grade

Social Studies

SS.S.05.04 Students will

- interpret, and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and the tools and assess techniques available for geographic study.

Science

SC.S.5.1 Students will

- demonstrate an understanding of the history of science and the evolvement of scientific knowledge.
- demonstrate an understanding of science as a human endeavor encompassing the contributions of diverse cultures and scientists.
- demonstrate an understanding of the characteristics of a scientist.
demonstrate skills of scientific inquiry.

SC.O.5.1.05 cooperate and collaborate to ask questions, design and conduct investigations to find answers and solve problems.

SC.O.5.1.06 formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection.

SC.O.5.1.10 utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, or identifying dependent and independent variables).

SC.S.5.2 Students will

- demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives.
- demonstrate an understanding of the interrelationships among physics, chemistry, biology and the earth and space sciences.
apply knowledge, understanding and skills of science subject matter/concepts to daily life experiences.

6th grade

Social Studies

SS.S.06.04 Students will

- interpret, and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and the tools and assess techniques available for geographic study

Science

SC.S.6.1 Students will

- demonstrate an understanding of the history of science and the evolvement of scientific knowledge.
- demonstrate an understanding of science as a human endeavor encompassing the contributions of diverse cultures and scientists.
- demonstrate an understanding of the characteristics of a scientist.
demonstrate skills of scientific inquiry.

SC.O.6.1.05 cooperate and collaborate to ask questions, design and conduct investigations to find answers and solve problems.

SC.O.6.1.10 utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, or identifying dependent and independent variables).

7th grade

Social Studies

SS.S.07.04 Students will

- interpret, and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).

- analyze the interaction of society with the environment (Environment and Society).
- point out geographic perspective and the tools and assess techniques available for geographic study (Uses of Geography).

SS.S.07.05 Students will

- organize, analyze and compare historical events, distinguish cause-effect relationships, theorize alternative actions and outcomes, and anticipate future application (Chronology).
- use the processes and resources of historical inquiry to develop appropriate questions, gather and examine evidence, compare, analyze and interpret historical data (Skills and Application).
- examine, analyze and synthesize historical knowledge of major events, individuals, cultures and the humanities in West Virginia, the United States and the world (Culture and Humanities).
- use historical knowledge to analyze local, state, national and global interdependence (Interpretation and Evaluation). and
examine political institutions and theories that have developed and changed over time; and research and cite reasons for development and change (Political Institutions).

SS.O.07.05.01 analyze the development of early civilizations (e.g., Mesopotamia, Egypt, Greece, China, India).

Science

SC.S.7.1 Students will

- demonstrate an understanding of the history of science and the evolvement of scientific knowledge.
- demonstrate an understanding of science as a human endeavor encompassing the contributions of diverse cultures and scientists.
- demonstrate an understanding of the characteristics of a scientist.
demonstrate skills of scientific inquiry.

SC.O.7.1.05 cooperate and collaborate to ask questions, design and conduct investigations to find answers and solve problems.

SC.O.7.1.06 formulate conclusions through close observations, logical reasoning, objectivity, perseverance and integrity in data collection.

SC.O.7.1.10 utilize experimentation to demonstrate scientific processes and thinking skills (e.g., formulating questions, predicting, forming hypotheses, quantifying, or identifying dependent and independent variables).

SC.S.7.2 Students will

- demonstrate knowledge, understanding and applications of scientific facts, concepts, principles, theories and models as delineated in the objectives.
- demonstrate an understanding of the interrelationships among physics, chemistry, biology, earth/environmental science, and astronomy.
apply knowledge, understanding and skills of the science subject matter/concepts to daily life experiences.

8th grade

Social Studies

SS.S.08.04 Students will

- interpret and choose maps, globes and other geographic tools to categorize and organize information about personal directions, people, places and environments (The World in Spatial Terms).
- examine the physical and human characteristics of place and explain how the lives of people are rooted in places and regions (Places and Regions).
- analyze the physical processes that shape the earth's surface and create, sustain and modify the cultural and natural environment (Physical Systems).
- analyze and illustrate how the earth is shaped by the movement of people and their activities (Human Systems).
- analyze the interaction of society with the environment (Environment and Society).
point out geographic perspective and the tools and assess techniques available for geographic study

Science

SC.S.8.1 Students will

- demonstrate an understanding of history and nature of science as a human endeavor encompassing the contributions of diverse cultures and scientists.
- demonstrate the ability to use the inquiry process to solve problems.

SC.O.8.1.05 implement safe procedures and practices when manipulating equipment, materials, organisms, and models.