

GRADE FOUR SCIENCE

DEMONSTRATES KNOWLEDGE OF CONTENT AND CONCEPTS

Plant and Animal Structures

- Construct an argument that animals and plants have internal and external structures that support their survival, growth, behavior, and reproduction.
- Develop a model to describe that light must reflect off an object and enter the eye for the object to be seen.

Energy

- Use evidence to construct an explanation relating the speed of an object to the energy of that object.
- Make observations to provide evidence that energy can be transferred from place to place by sound, light, heat, and electric currents.
- Ask questions and predict outcomes about the changes in energy that occur when objects collide.
- Apply scientific ideas to design, test, and refine a device that converts kinetic energy to electrical energy or uses stored energy to cause motion or produce light or sound.
- Obtain information to describe that energy and fuels humans use are derived from natural resources and that some energy and fuel sources are renewable and some are not.

Earth's Changing Surface

- Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.
- Make observations and collect data to provide evidence that rocks, soils, and sediments are broken into smaller pieces through mechanical weathering, and those pieces are moved around through erosion.
- Analyze and interpret data from maps to describe patterns of Earth's features.
- Evaluate different solutions to reduce the impacts of a natural event on humans.

Waves and Information

- Develop a model of a simple mechanical wave to communicate that waves (a) are regular patterns of motion along which energy travels and (b) can cause objects to move.
- Develop and compare multiple ways to transfer information through encoding, sending, receiving, and decoding a pattern.

GRADE FOUR SCIENCE

DEMONSTRATES APPLICATION OF SKILLS AND PRACTICES

- Asking questions (science) and defining problems (engineering)
- Developing and using models
- Planning and carrying out investigations
- Analyzing and interpreting data
- Using mathematical and computational thinking
- Constructing explanations (science) and designing solutions (engineering)
- Engaging in argument from evidence
- Obtaining, evaluating and communicating information

GRADE FOUR SOCIAL STUDIES

North American Geography

DEMONSTRATES KNOWLEDGE OF LEARNING STANDARDS

Regions of the United States

- On a map of the world, locate North America. On a map of North America, locate the United States, the Atlantic and Pacific Oceans, and important rivers, lakes, and mountain ranges.
- On a map of North America, locate the current boundaries of the United States and locate five regions; the Northeast, the Southeast, the Midwest, the Southwest, and the West.
- Identify the states, state capitals, and major cities in each region.
- Describe the climate, major physical features, and major natural resources in each region.
- Identify and describe unique features of the United States (e.g., the Everglades, the Grand Canyon, Mount Rushmore, the Redwood Forest, Yellowstone National Park, and Yosemite National Park.)
- Identify major monuments and historical sites in and around Washington D.C.
- Identify the five different European countries (France, Spain, England, Russia, and the Netherlands) that influenced different regions of the present United States at the time the New World was being explored. Describe how their influence can be traced to place names, architectural features, and language.
- Describe the diverse nature of the American people by identifying the distinctive contributions to the American culture of several indigenous peoples in different areas of the country; African Americans (including where they tended to settle in large numbers); major European immigrant groups (including where they tended to settle in large numbers); major Spanish-speaking immigrant groups (including groups who have come to America in the 19th and 20th centuries and where they tended to settle in large numbers); and major Asian immigrant groups (including groups who have come to America in the 19th and 20th centuries and where they tended to settle in large numbers.)
- Identify major immigrant groups that live in Massachusetts and where they now live in large numbers.

GRADE FOUR SOCIAL STUDIES

North American Geography

DEMONSTRATES KNOWLEDGE OF LEARNING STANDARDS

Canada

- On a map of North America, locate Canada, its provinces, and major cities.
- Describe the climate, major physical characteristics, and major natural resources of Canada and explain their relationship to settlement, trade, and the Canadian economy.
- Describe the major ethnic and religious groups of modern Canada.
- Identify when Canada became an independent nation and explain how independence was achieved.
- Identify the location of at least two Native American tribes in Canada (e.g., Kwakiutl and Micmac) and the Inuit nation and describe their major social features.
- Identify the major language groups in Canada, their geographic location, and the relations among them.

Mexico

- On a map of North America, locate Mexico and its major cities.
- Describe the climate, major physical characteristics, and major natural resources of Mexico and explain their relationship to the Mexican economy.
- Identify the language, major religion, and peoples of Mexico.
- Identify when Mexico became an independent nation and describe how independence was achieved.

DEMONSTRATES APPLICATION OF CONCEPTS AND SKILLS

History and Geography

- Use map and globe skills to determine absolute locations (latitude and longitude) of places studied.
- Interpret a map using information from its title, compass rose, scale, and legend.
- Observe and describe national historic sites and describe their function and significance.

Civics and Government

- Give examples of the major rights that immigrants have acquired as citizens of the United States (e.g., the right to vote, and freedom of religion, speech, assembly, and petition.)
- Give examples of the different ways immigrants can become citizens of the United States.

Economics

- Define and give examples of natural resources in the United States.
- Give examples of limited and unlimited resources and explain how scarcity compels people and communities to make choices about goods and services, giving up some things to get other things.
- Give examples of how the interaction of buyers and sellers influences the prices of goods and services in markets.