



## Theme: Water (grades 9-12)

### Sub theme: Global Water Issues

#### Objectives:

- To understand the issues facing the world on a global scale.
- To learn how global issues affect the earth as a whole
- Examine specific problems associated w/ water issues and how those countries/cultures are affected.
- Work collaboratively as a team to propose solutions to the concerns.
- Understanding the effect of conservation.
- Learn how to become water stewards.
- Apply scientific method and analyzing skills to solve problems.
- Predict possible outcomes and develop future policies for local or regional issues that have spatial dimensions.

#### Nevada State Standards

##### Science:

- N.12.A.5 Students know models and modeling can be used to identify and predict cause-effect relationships. I/S
- N.12.B Students understand the impacts of science and technology in terms of costs and benefits to society.
- N.12.B.1 Students know science, technology, and society influence one another in both positive and negative ways. E/S
- N.12.B.2 Students know consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts. E/S
- E.12.A Students understand heat and energy transfer in and out of the atmosphere and influence weather and climate.
- E.12.A.1 Students know the Sun is the major source of Earth's energy, and provides the energy driving Earth's weather and climate. E/S
- E.12.A.2 Students know the composition of Earth's atmosphere has changed in the past and is changing today. I/S
- E.12.A.3 Students understand the role of the atmosphere in Earth's greenhouse effect. E/S
- E.12.A.4 Students know convection and radiation play important roles in moving heat energy in the Earth system. E/S
- E.12.C.2 Students understand the concept of plate tectonics including the evidence that supports it (structural, geophysical and paleontological evidence). E/S

- E.12.C.4 Students know processes of obtaining, using, and recycling of renewable and non-renewable resources. E/S
- L.12.B.3 Students know disease disrupts the equilibrium that exists in a healthy organism. E/
- L.12.C Students understand that ecosystems display patterns of organization, change, and stability as a result of the interactions and interdependencies among the living and non-living components of the Earth.
- L.12.C.1 Students know relationships of organisms and their physical environment. E/S
- L.12.C.2 Students know how changes in an ecosystem can affect biodiversity and biodiversity's contribution to an ecosystem's stability. E/S
- L.12.C.3 Students know the amount of living matter an environment can support is limited by the availability of matter, energy, and the ability of the ecosystem to recycle materials. E/S

#### **English Language Arts:**

- 2.12.1 Refine pre-reading strategies such as accessing prior knowledge, predicting, previewing, and setting a purpose to ensure comprehension.
- 2.12.2 Use specific repair strategies such as summarizing, clarifying ambiguities, and consulting other sources.
- 3.12.4 Use textual evidence to analyze the theme or meaning of a selection.
- 4.12.3 Locate, organize, interpret, and synthesize information in multiple primary and secondary sources to support ideas and positions.
- 4.12.6 Read and apply multi-step directions to perform complex procedures and tasks.
- 8.12.1 Summarize and evaluate communications that inform, persuade, and entertain.
- 9.12.2 Make formal oral or multi-media presentations, using vocabulary and public speaking techniques appropriate to audience and purpose.
- 9.12.3 Organize and deliver planned, extemporaneous, and impromptu presentations that address a topic and engage the audience.
- 10.12.1 Participate in problem-solving conversations or group discussions by identifying, synthesizing, and evaluating data.
- 11.12.5 Organize and present research findings using appropriate media.

#### **Social Studies: Economics:**

- 1.12.1 Explain why choices and their costs may differ across individuals and societies.

- 1.12.2 Recognize that people act out of self-interest and predict how a change in the economic environment will affect the choices made by consumers, producers, and savers.
- 1.12.3 Examine decisions made by individuals, businesses, and government by comparing the marginal benefits and marginal costs.
- 6.12.1 Compare the benefits and costs of allocating **resources** through markets or government.

**Social Studies: Geography:**

- 1.12.1 Use a variety of complex maps to acquire geographic information such as topographic, demographic, and land use.
- 2.12.1 Determine how relationships between humans and the physical environment lead to the development of and connections among places and regions.
- 2.12.2 Explain why places and regions are important to cultural identity and can serve as forces for both unification and fragmentation.
- 2.12.4 Determine how technology affects the way cultural groups perceive and use places and regions.
- 3.12.2 Describe the causes and consequences of natural hazards that shape features and patterns on the Earth
- 3.12.3 Analyze the effects of physical and human forces on interdependence within different ecosystems.
- 4.12.2 Evaluate the impact of migration and settlement on physical and human systems.
- 4.12.3 Analyze how history has been affected by the movement of people, goods, and ideas.
- 4.12.7 Predict the impact of changes in the level of economic development on the quality of life in developing and developed countries.
- 4.12.9 Analyze how different cultures, points of view, and self-interests influence cooperation and conflict over territory and resources.
- 5.12.1 Compare and contrast how changes in the physical environment can increase or diminish its capacity to support human activity.
- 5.12.2 Evaluate strategies to respond to constraints placed on human systems by the physical environment.
- 5.12.3 Describe the ways in which technology has affected the human capacity to modify the physical environment and evaluate the possible regional or global impact.

- 5.12.4 Develop possible responses to changes caused by human modification of the physical environment
- 5.12.5 Analyze human perception of and response to natural hazards.
- 5.12.6 Analyze the patterns of use, the changing distribution, and the relative importance of Earth's resources.
- 5.12.7 Develop policies for the use and management of Earth's resources that consider the various interests involved.
- 6.12.1 Analyze the ways in which physical features and human characteristics of places and regions have influenced the evolution of significant historical events.
- 6.12.2 Relate current events to the physical features and human characteristics of places and regions.
- 6.12.3 Analyze a contemporary issue using geographic knowledge, skills, and perspectives.

### **Social Studies: History**

- 1.12.1 Analyze and develop a position on a current event.
- 12.2.2 Integrate, analyze, and organize historical information from a variety of sources.
- 7.12.5 Describe the role of farming, railroads, mining in the settlement of the West.
- 10.12.2 Describe the regional and global effects of political and economic alliances.
- 10.12.3 Describe how global issues affect nations differently, including:
  - o human rights
  - o the environment
  - o world and U.S. regional conflicts
  - o medical concerns