



## **Theme: Sustainability (Grades 9 to 12)**

### **Pre- and Post- Activities**

### **Nevada State Standards**

#### **English Language Arts**

4.12.6 Read and apply multi-step directions to perform complex procedures and tasks.

6.12.3 Write compositions that present complex ideas in a sustained and compelling manner.

6.12.5 Edit for use of standard English.

7.12.4 Use rules of capitalization.

7.12.5 Demonstrate conventional spelling.

10.12.1 Participate in problem-solving conversations or group discussions by identifying, synthesizing, and evaluating data.

10.12.2 Negotiate to arrive at consensus by proposing and examining possible options.

#### **Mathematics**

3.12.3 Select and use appropriate measurement tools, techniques and formulas to solve problems in mathematical and practical situations.

4.12.8 Solve problems by drawing and/or constructing geometric figures to demonstrate geometric relationships.

5.12.2 Select and apply appropriate statistical measures in mathematical and practical situations.

#### **Science**

N.12.A.1 Students know tables, charts, illustrations and graphs can be used in making arguments and claims in oral and written presentations.

N.12.B.1 Students know science, technology, and society influenced one another in both positive and negative ways.

N.12.B.2 Students know consumption patterns, conservation efforts, and cultural or social practices in countries have varying environmental impacts.

N.12.B.4 Students know scientific knowledge builds on previous information.

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.12.A.2 Students know the composition of Earth's atmosphere has changed in the past and is changing today.

- E.12.A.3 Students understand the role of the atmosphere in Earth's greenhouse effect.
- E.12.C.3 Students know elements exist in fixed amounts and move through solid earth, oceans, atmosphere and living things as part of biogeochemical cycles.
- E.12.C.4 Student know processes of obtaining, using, and recycling of renewable and non-renewable resources.
- P.12.C.2 Students know energy forms can be converted.
- P.12.C.5 Students know the relationship between heat and temperature.
- P.12.C.6 Students know electricity is transferred from generating sources for consumption and practical uses.
- L.12.C.1 Students know relationships of organisms and their physical environment
- L.12.C.2 Students know how changes in an ecosystem can affect biodiversity and biodiversity's contribution to an ecosystem's stability.
- 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.

## **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.
- 3.12.7 Analyze family spending decisions, drawing conclusions about the desirability of making substitutions, given the relative prices of various substitutes.
- 6.12.3 Analyze the potential production of goods and services for a nation as determined by its resources and technology.

### *Geography*

- 1.12.1 Use a variety of complex maps to acquire geographic information such as topographic, demographic, and land use.
- 1.12.3 Use appropriate geo- graphic tools and tech- nologies to analyze and interpret Earth's physical and human features.
- 2.12.4 Determine how technology affects the way cultural groups perceive and use places and regions.
- 2.12.7 Apply the concept of region to organize and study a geographic issue.
- 3.12.1 Describe and analyze how interactions of the four basic physical systems affect different regions of the United States and the world.
- 3.12.3 Analyze the effects of physical and human forces on interdependence within different ecosystems.

- 3.12.5 Propose solutions to environmental problems using the concept of ecosystems.
- 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
- 6.12.3 Analyze a contemporary issue using geographic knowledge, skills, and perspectives.