

Measurable Objectives

Design measurable objectives. Identify the state standards targeted by these objectives.

Explore Your Watershed

Carson River Watershed Map

Primary purposes is to develop:

An awareness of the natural world

An understanding of ecosystems

An awareness of the impact of our actions

Awareness and knowledge of local water resources and water quality issues

Obj.1. Investigate and describe how environmental conditions in the upper portion of the watershed differ from environmental conditions in the middle and lower portions of the watershed.

1a. Annual precipitation is the amount of water received in the form of rain and snow in one year's time. True False

Nv Earth & Space Science Std. *Students understand that the Earth is composed of interrelated systems of rocks, water, air, and life.*

13.8.4 Cycles of Matter and Energy. Simulate and describe how clouds, latitude, altitude, topographical features, and proximity to large bodies of water affect weather and climate **(Climate)** (8th grade)

Nv Geography Std 3.0: Physical Systems—*Students understand how physical processes shape Earth's surface patterns and ecosystems.* (Grades 6, 8 & 12).

3.6.1 Explain how conditions in the atmosphere can affect those on the lithosphere.

3.8.1 Explain how the physical processes within each of the four basic systems (atmosphere, lithosphere, hydrosphere, and biosphere) influence the Earth's surface.

3.8.4 Compare and contrast the biodiversity and productivity of various ecosystems on Earth.

3.12.1 Describe and analyze how interactions of the four basic physical systems (atmosphere, biosphere, lithosphere, and hydrosphere) affect different regions of the U.S. and the world.

Nv Geography Std 5.0: Environment and Society—*Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.* (Grades 7, 8 & 12).

5.7.1 Investigate changes in the physical environment that could have an impact on humans.

5.8.1 Describe and predict the regional or global impact of changes in the physical environment.

5.12.1 Compare and contrast how changes in the physical environment can increase or diminish its capacity to support human activity. **(Changes in the Physical Environment)**

5.7.2 Explain a specific constraint on a physical environment that impacts human activity.

5.8.2 Compare and contrast the opportunities and constraints that the physical environment places on human activity.

5.12.2 Evaluate strategies to respond to constraints placed on human systems by the physical environment. **(Constraints of the Physical Environment)**

Obj.2. Many different types of plants grow in the Carson River Watershed to support many wildlife species.

2a. Identify three plants found in rangeland, riparian or forest habitats. Explain similarities and differences in their use and identify living species that thrive on these different habitats.

2b. What is the name of the habitat type that is found in the lower end of the watershed that is very dry or salty.

Big sagebrush habitat

Riparian habitat

Salt desert shrub habitat

High mountain habitat

2c. Vegetation along the river channel helps to make water cleaner by . . .

(circle all that apply) Holding the soil in place

Filtering and taking up pollutants

Cooling the water

Scrubbing the water

Nv Environmental Science Std. *Students will demonstrate an understanding that ecosystems display patterns of organization, change, and stability as a result of the interactions and interdependencies among the life forms and the physical components of the Earth.*

15.8.1 Ecosystems. Investigate and describe how living and non-living components of ecosystems interact in various ways. (**Stability and Change in Ecosystems**)

Obj.3. Describe (understand) how historical and present environmental impacts have resulted in the present landscape of Carson River watershed.

Nv Earth & Space Science Std. *Students understand that the Earth is composed of interrelated systems of rocks, water, air, and life.*

10.8.2 Earth Structures and Composition. Investigate and describe how the combination of constructive and destructive forces result in the formation of landforms. (**Landforms**)

Nv Geography Std 4.0 Human Systems –*Students understand how economic, political, and cultural processes interact to shape patterns of human migration and settlement, influence and interdependence, and conflict and cooperation.*

4.8.2 Define the reasons for human migration and settlement and explain the effects on places and cultures. (**Migration and Settlement**)

4.12.2 Evaluate the impact of migration and settlement on physical and human systems.

Obj.4. Identify the mountain ranges that surround portions of the Carson River.

(Circle all that apply) Cascade Mountain Range

Sierra Nevada Range

Pinenute Mountains

Rocky Mountains

Virginia Range

Dead Camel Range

4a. Where is the Carson River Watershed in relation to the Sierra Nevada mountain range?

East West North South

4b. What is the name of the canal that brings water from the Truckee River Watershed over to the Carson River Watershed?

Bypass Canal

Lahontan Canal

Truckee Canal

Derby Canal

Nv Earth & Space Science Std. *Students understand that the Earth is composed of interrelated systems of rocks, water, air, and life.* **11.8.2 Earth Models.** Compare a variety of map types, and locate Nevada and Nevada features on each.

Obj.5. Name six attractions our watershed offers. Describe their location in relation to waterbodies, communities, accessibility, or other influencing factors. Describe any contribution and influence the attraction may have upon water quality.

5a. Where does water go after it runs down your street into a ditch or storm drain?

Storage tanks

Lakes and rivers

A water treatment plant

All of these

I don't know

5b. Circle actions that help watersheds; draw a line through actions that harm watersheds.

Plant trees or shrubs

Plant flowers and grasses

Rake leaves into the street

Put chemicals down the storm drain when finished with them

Wash cars in the street

Pick up litter

Tell people that streets flow to rivers

Ride your bike

Keep fertilizers off driveways and streets

Mulch and compost leaves

Pick up after your pet

Nv Environmental Science Std. *Students will demonstrate an understanding that ecosystems display patterns of organization, change, and stability as a result of the interactions and interdependencies among the life forms and the physical components of the Earth.*

15.12.1 Ecosystems. Investigate and describe how ecosystems change or remain the same in response to different kinds of influences. (**Relationships and Interactions in Ecosystems**)

Obj.6. Two-part question. 1. In what way am I part of the Carson River? 2. How do I impact the water of the Carson River?

Nv Geography Content Stds. 2.0: Places and Regions—*Students understand the physical and human features and cultural characteristics of places and use this information to define and study regions and their patterns of changes.*

2.8.1 Describe the relationship between physical and human features, such as landforms and political boundaries.

2.12.1 Determine how relationships between humans and the physical environment lead to the development of and connections among places and regions. (**Characteristics of Places and Regions**)

2.8.2 Relate how places and regions are important to the expression of cultural identity.

2.12.2 Explain why places and regions are important to cultural identity and can serve as forces for both unification and fragmentation. (**Cultural Identity**)

Obj.7. Explain the controversy over the first established human settlement in the 1860's.

Nv History Std.1.0. *Students use chronology to organize and understand the sequence and relationship of events.*

1.8.2 Chronology. Create a tiered time line.

1.12.2 Explain the sequence and relationship of events on a tiered time lines. (**Chronology**)

Nv History Std.2.0. *Students will use social studies vocabulary and concepts to engage in inquiry, in research, in analysis, and in decision-making.*

2.8.1 Frame historical questions that examine multiple viewpoints.

2.12.1 Frame and evaluate historical questions from multiple viewpoints. (**Inquiry**)

2.8.2 Evaluate sources of historical information based on: bias, credibility, cultural context, reliability, and time period.

2.12.2 Integrate, analyze, and organize historical information from a variety of sources. (**Research and Analysis**)

Obj.8. Describe (understand) how historical and present environmental impacts have resulted in the present landscape of Carson River watershed.

Nv History Std. 6.0: 1700 to 1865: *Students understand the people, events, ideas, and conflicts that led to the creation of new nations and distinctive cultures.*

6.8.22 Explain the events that led to Nevada statehood, including Comstock Lode and Election of 1864. (**Nevada**)

Nv History Std. 7.0: 1860 to 1920: *Students understand the importance and impact of political, economic, and social ideas.*

7.8.5 Describe the western frontier, including communication, pony express, telegraph, farming and water issues, mining, ranching, transportation.

7.8.9 Identify immigrant and native groups involved in mining, ranching, railroads, and commerce in Nevada and the United States.

7.12.5 Describe the role of farming, railroads, and mining in the settlement of the West. (United States and Nevada)

Nv Geography Std 1.0: The World in Spatial Terms: *Students use maps, globes, and other geographic tools and technologies to locate and derive information about people, places, and environments.*

1.8.2 Compare and contrast the characteristics and purposes of several types of maps, map projections, and other geographic representations.

1.12.2 Select appropriate maps, map projections, and other representations to analyze and interpret geographic information. (**Map Selection**)

1.8.5 Compare and contrast maps of similar areas for purpose, accuracy, content, and design.

1.12.5 Analyze maps for similarities and differences in purpose, accuracy, content, and design. (**Map Analysis**)

Nv Geography Std 2.0: Places and Regions—Students understand the physical and human features and cultural characteristics of places and use this information to define and study regions and their patterns of changes.

2.8.6 Describe how and why regions change over time.

2.12.6 Analyze why places and regions once characterized by one set of criteria may be defined by a different set of criteria today, and evaluate these changes. (**Patterns of Change**)

NV Geography Std 5.0: Environment and Society. *Students understand the effects of interactions between human and physical systems and the changes in use, distribution, and importance of resources.*

5.8.4 Describe the patterns of change caused by human modification of the physical environments.

5.12.4 Develop possible responses to changes caused by human modification of the physical environment. (**Human Modification**)

5.8.6 Identify and locate examples of renewable and non-renewable natural resources.

Renewable resource—An aspect that can be regenerated if used carefully (for example, fish, timber).

5.12.6 Analyze the patterns of use, the changing distribution, and the relative importance of Earth's resources. (**Earth's Resources**).

5.8.7 Select a resource and evaluate different viewpoints regarding its use.

5.12.7 Develop policies for the use and management of Earth's resources that consider the various interests involved. (**Management of Earth's Resources**)

Nv Geography Std 6.0: Geographic Applications. *Students apply geographic knowledge of people, places, and environments to interpret the past, understand the present, and plan for the future.*

6.5.1 Describe how people and places have influenced events in the past.

6.6.1 Identify resources that have played a role in historical events or movements.

6.7.1 Identify and discuss strategic geographic locations that have played a pivotal role in historic events.

6.8.1 Explain how different characteristics of people, places, and resources have affected events and conditions in the past.

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. (**Applying Geography in History**).