**Sample Questions for Creating a Pre-/Posttest**

Correct answers are highlighted

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**Watersheds**

Regardless of exactly where you live, you do live in a watershed. What is a watershed?

a. area of land that water flows across as it moves toward a larger water body

b. a building that stores water for use at a later time

c. area of land from which water drains to a particular surface water body

d. a and c

What is surface water?

a. water that has not seeped into the ground

b. water that is exposed to the air

c. water that is underground in aquifers

d. both a and b

What is the biggest threat to the quality of water in our surface water bodies?

a. recreational activities

b. state and local governments

c. habitat restoration projects

d. stormwater runoff

What can be generalized about pollution in the watershed?

a. All pollutants are harmful to humans.

b. Most pollutants get into our water because of the actions of people.

c. Pollution rarely affects the quality of water in a watershed.

d. Most pollution found in a watershed comes from one source.

Many successful restoration projects are occurring to protect our natural resources. What is the main

purpose of a restoration project?

a. to convert altered areas back to their original, natural form

b. to provide an outdoor activity for volunteers

c. to use taxpayer dollars for outdoor recreation

d. to employ the services of local government agencies

**Water Quality**

Which parameter is tested to measure how much oxygen is found in a given body of water?

1. dissolved oxygen
2. turbidity
3. organic inventory
4. pH

Which parameter is tested to measure how much clay, silt, organic and inorganic matter and

tiny organisms can be found in a body of water?

1. pH
2. turbidity
3. dissolved oxygen
4. macroninvertebrate inventory

The \_\_\_\_\_\_\_\_\_\_\_\_ scale can be used to measure how acidic or basic a body of water is.

1. pH
2. turbidity
3. dissolved oxygen
4. organic inventory

Nutrients entering our waters frequently come from the following source(s):

1. leaking septic systems
2. excess fertilizers washing off lawns
3. pet waste
4. all of the above

Why is non-point source pollution so difficult to identify?

a. because a person can point a finger at the source

b. because its source is usually at the highest point of elevation

c. because its source is usually at the lowest point of elevation

d. because it can come from a variety of sources

**Wetlands**

What is a wetland?

a. An area that is flooded or has saturated soils for certain periods of time during the year

b. An area that has unique soils that are different from soils found in other areas

c. An area that contains special plants and trees that are commonly found in wetland areas and thrive in waterlogged soil or water

d. All of the above

What is a main characteristic of a wetland?

a. water and saturated soils

b. sandy soils and heat

c. minimal vegetation and frozen water

d. dry areas and mountains

Which one below does NOT belong in a list of characteristics about a wetland?

a. It acts as a big sponge.

b. It causes flooding in nearby areas.

c. It helps to clean and purify water.

d. It is a natural area that holds water.

Wetlands help our environment in many ways. Which one below does NOT belong in the list?

a. Wetlands help serve as nursery areas.

b. Wetlands help protect us from floods.

c. Wetlands help erode our coastlines.

d. Wetlands help store water.

The future of our wetlands depends on all of us working together. How can citizens get involved?

a. By volunteering their time on environmental projects

b. By writing a letter to government officials about wetlands

c. By learning more about wetlands and teaching others about them

d. All of the above

What term is used to describe government wetland protection policies that help make up for the destruction of wetland areas?

a. mitigation

b. food chain

c. wasteland development

d. wetland hydrology

What are the two main categories of wetlands?

a. Cypress swamps and hardwood swamps

b. Saltwater wetlands and freshwater wetlands

c. Coastal marshes and forested wetlands

d. Mangrove swamps and freshwater wetlands

Which type of wetland resembles a pond filled with grasses and flowers?

a. coastal marsh

b. mangrove swamp

c. freshwater marsh

d. cypress swamp

What is the difference between a swamp and a marsh?

a. Swamps are full of fresh water; marshes are full of saltwater.

b. Marshes are filled with grasses; swamps are filled with trees.

c. Marshes are full of fresh water; swamps are full of saltwater.

d. Swamps are filled with grasses; marshes are filled with trees.

How do wetlands help to protect water quality?

a. They filter sediments, nutrients and other material from runoff.

b. They cause areas to flood into larger water bodies.

c. They prevent water from being stored in their areas.

d. They cause the water to be filled with tannins.

**Habitats**

What is a habitat?

a. a living community of plants and animals and their relationship with the environment around them

b. a place where an animal or plant lives

c. a group of plants or animals that are genetically similar and reproduce with each other

d. all of the above

Which of the following water habitats exist in our area?

a. estuaries

b. lakes, ponds and wetlands

c. rivers and springs

d. all of the above

What term is used to describe a community of plants and animals that grow and live together naturally?

a. an ecosystem

b. a seagrass bed

c. a propagule

d. a mangrove

Florida is fortunate to have a high level of biological diversity, which is also known as biodiversity. What does this mean?

a. Florida has an environment that supports a wide variety of plants and animals.

b. Florida has a short geologic past with natural features that are fairly new.

c. Florida is made up of mainly dry areas.

d. Florida has an environment that supports only a few species of plants and animals.

Controlled burning may be used to manage sections of land. What is the purpose of this activity?

a. To reduce the population of animals.

b. To maintain good wildlife habitat and to prevent wildfires from destroying homes.

c. To destroy all the trees in an area.

d. To make certain that homes will not be built in a particular area.

Stewardship plays a very important role in protecting natural resources. What is stewardship?

a. a sense of ownership in and responsibility for our land and natural resources

b. an avoidance of responsibility for taking care of our natural resources

c. a sense of ownership of a canoe or other type of boat

d. a sense of responsibility for reducing our natural resources

**Estuaries**

Where could you possibly find an estuary?

a. at a lake

b. at a water area where a river meets the sea

c. at the source of a river

d. on an island in the ocean

Water in an estuary is described as *brackish*. What does this mean?

a. The water is brown and salty.

b. The water contains a mixture of fresh and salty water.

c. The water is warm and muddy.

d. The water is filled with tiny organisms.

Which one below does NOT belong in a list of features about estuaries?

a. They are semi-enclosed water bodies.

b. They are transitional zones between fresh and salt water.

c. They often serve as hatcheries for young marine life.

d. They increase the amount of pollution in an area.

Which species of tropical trees is able to thrive in an estuarine environment?

a. mangrove

b. wax myrtle

c. maple

d. pine

Which three species of mangrove trees live in Florida?

a. spiny mangrove, propagule mangrove and walking mangrove

b. brown mangrove, red mangrove, tan mangrove

c. black mangrove, red mangrove and white mangrove

d. hardwood mangrove, flatwood mangrove and scrub mangrove

How do plants in an estuary help improve the estuary‘s quality of water?

a. by flowing salty water through it

b. by filtering pollutants and sediments from the water

c. by flowing fresh water through it

d. by serving as a hatchery for young fish

How do mangroves provide good habitats for young animals?

a. Their intricate pattern of roots and branches serve as a shelter.

b. They can trap organic material brought in by tidal flooding.

c. Their unique branches can be used for roosting and nesting.

d. All of the above

**Groundwater**

In this issue of *WaterWeb*, you have learned about the importance of groundwater. What is groundwater?

a. water in lakes, ponds and rivers

b. water under the earth’s surface

c. water stored in an aquifer

d. both b and c

Which one below does NOT belong in a list of facts about the Floridan aquifer system?

a. It consists primarily of limestone rock.

b. It is replenished through a natural process called recharge.

c. It was created within the last decade due to the effects of sinkholes and springs.

d. It is the largest and deepest aquifer system in Florida.

What can be generalized about groundwater pollution?

a. It is easy for a variety of pollutants to soak into the groundwater supply.

b. Florida’s sandy soils keep pollutants from soaking into the water table.

c. Stormwater runoff helps filter out other pollutants from groundwater.

d. Groundwater rarely becomes polluted due to the actions of people.

How is groundwater drawn from the aquifer for use in our cities, homes and farms?

a. Sinkholes are created and pumps are used to move the water to surface water towers.

b. Wells are drilled into the aquifer, with pipes and pumps used to bring the water to the surface.

c. Computers are programmed to locate and collect surface water.

d. Computer technology is used to create springs and draw water from them.

Much of Florida is made up of karst terrain. Which of the following characteristics could be used to describe karst terrain?

a. land surface produced by water dissolving the underlying bedrock

b. sinkholes

c. springs

d. a, b and c

A spring is a natural opening in the ground where groundwater flows up to the earth’s surface. Which of the following statements is TRUE?

a. There are fewer than 100 springs in Florida.

b. A spring is another name for a sinkhole.

c. Florida has the largest amount of springs anywhere in the world.

d. Springs rarely exist in a landscape that has a karst terrain.

What can cause a sinkhole to occur in the landscape?

a. the development of several new springs

b. a situation in which acidic water erodes and dissolves underground limestone

c. an increase in the number of pollutants in the groundwater

d. a decrease in the volume of stormwater runoff soaking into the aquifer

Which one below is NOT an example of a groundwater pollutant?

a. pesticides

b. herbicides

c. motor oil

d. drinking water

Approximately how much of the world’s water can be used for drinking?

1. 97 percent
2. 75 percent
3. 1 percent
4. 2 percent

**Alternative Water Sources**

Which one below is considered a traditional source of water in Florida?

a. polluted water

b. reclaimed water

c. groundwater

d. salt water

Why is reclaimed water an effective alternative water source?

a. Because it helps to offset the demand for traditional water sources.

b. Because it is a good source of potable water.

c. Because it makes use of unlimited supplies of seawater.

d. Because it only needs primary treatment.

The term *reuse* is often used in discussions about alternative water sources. What is reuse?

a. water that has received primary treatment at a facility

b. increasing the amount of water entering the aquifers

c. the removal of minerals and other dissolved solids

d. the act of reusing reclaimed water according to rules set up by state and regional water authorities

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What is the purpose of desalination?

a. to increase the amount of salt in fresh water

b. to change seawater into potable water

c. to remove pollutants from seawater

d. to provide a traditional water source

Which analogy can be used to describe the cleaning of water?

a. desalinated water — groundwater

b. reclaimed water — wastewater treatment plant

c. wastewater treatment plant — the water cycle

d. reverse osmosis — groundwater

Which one below does NOT belong in a list of activities associated with the use of reclaimed water?

a. irrigating citrus groves

b. washing cars and boats

c. preparing meals

d. restoring wetlands

**Water-conserving Landscaping**

The leaves of plants and trees give off water, which goes into the air. What is this process called?

1. weeping
2. transpiration
3. percolation
4. precipitation

Which of the following is not a stage of the water cycle?

1. evaporation
2. precipitation
3. condensation
4. humidification

Fertilizers applied improperly can run off lawns and into local water bodies, harming water quality and threatening the plants and animals that depend on clean water for survival.

1. True
2. False

Which of the following should you consider when selecting plants for your landscape?

1. The type of soil
2. Sunlight exposure
3. Water conditions
4. All of the above

When is the best time to water your lawn and garden?

1. At night, after the sun has set
2. At dusk, just before the sun sets
3. In the afternoon
4. Around sunrise or early in the morning

How does mulch help a landscape?

a. It conserves water and helps control weeds.

b. It increases the amount of turf.

c. It improves the quality of soil.

d. It stimulates the growth of flowers.

Reusing water collected in rainbarrels is a great way to conserve water. Which of the following uses should water from rainbarrels not be used for without extensive filtration and treatment?

1. Vegetable gardens
2. Washing cars
3. Indoor plumbing
4. Watering potted plants

Exotic species do not occur naturally and can crowd out native species. Which of the following is NOT an exotic species harmful in Florida?

a. Brazilian pepper

b. Melaleuca tree

c. Saw palmetto

d. Air potato

**Weather**

In which of the following areas does most of our weather occur?

a. within 100 feet of the earth’s surface

b. under the earth’s surface

c. in high-level clouds

d. in the troposphere

How is climate related to weather?

a. Climate describes the weather patterns over a long period of time.

b. Climate describes the weather patterns over a short period of time.

c. Climate and weather mean exactly the same thing.

d. Climate describes cloud conditions in the sky.

Which term is used to describe a measurement that tells how saturated the air is with water?

a. wind speed

b. Doppler radar

c. dew point

d. amount of rainfall

Over 80 percent of the fresh water used in west-central Florida is groundwater. What is groundwater?

a. water found only on the earth’s surface

b. water that has seeped into the ground and is held in soil and rock

c. water pumped from surface rivers and lakes

d. water found in the Gulf of Mexico

Which one is NOT a factor in long-term recovery of the water resource?

a. increased evaporation

b. droughtproof alternative water sources

c. water conservation

d. reclaimed water use

Which of the following features are used for classifying clouds into categories?

a. the Latin name associated with the cloud type

b. the base height and appearance of the cloud type

c. the age of the cloud type

d. the popularity of the cloud type

What can be said about modern weather forecasting?

a. Weather forecasting is a complex process.

b. Weather forecasts are more accurate today than they were 15 years ago.

c. Doppler radars are used to detect even the slightest weather system.

d. all of the above

Sometimes people find it difficult to believe that Florida can experience drought conditions. What

exactly is a drought?

a. It is a period of time during which precipitation is much lower than normal for that time and place.

b. It is a period of time during which precipitation is much higher than normal for that time and place.

c. It is a time when there is little precipitation in an area.

d. It is a time when there is excessive precipitation in an area.

What is a positive effect of lightning on our environment? Choose the best answer.

a. It helps to maintain a balance of electricity between the earth and the sky.

b. It can cause forest fires to start and spread throughout a neighborhood.

c. It can destroy buildings and other structures.

d. It can harm animals and people.

What information is often included on a weather map?

a. amounts of precipitation

b. high and low temperatures

c. fronts

d. all of the above

The terms *red sprites* and *elves* are used to describe what type of weather condition?

a. hurricanes

b. lightning

c. tornadoes

d. droughts

The destructive power of wind force is equal to which of the following?

a. the square of the wind speed

b. the square root of the wind speed

c. two times the wind speed

d. one-half the wind speed

Which of the following events causes a hurricane to slow down and lose much of its energy?

a. passing over land

b. passing over warm waters

c. moving along coastal areas

d. increasing its rotating wind speed

The most common form of lightning occurs as a result of flashes that form inside a storm cloud. What term is used to describe this type of lightning?

a. ball lightning

b. cloud-to-air lightning

c. cloud-to-ground lightning

d. intra-cloud lightning

Over a period of time, which of the following could create drought conditions?

a. when an area receives the same amount of its normal rainfall

b. when an area receives 50 percent or more of its normal rainfall

c. when an area receives 30 percent or less of its normal rainfall

d. when an area receives 10 percent or less of its normal rainfall