



Water Quality Answer Key

1. Why is it important that we take actions to conserve water?

All living things need water to live, but water is a limited resource.

2. Why is it important that we take actions to keep water clean?

Sedimentation can interfere with the growth of aquatic plants by decreasing oxygen levels. Dissolved oxygen is essential for aquatic species. Toxic chemicals can affect growth, reproduction, and survival of benthic organisms. All of these pollutants that result from human activity negatively impact the quality of water—a resource we cannot live without.

3. Name three water pollutants. List at least one source of each, and include at least one negative impact that it can have on water quality.

Possible answers may include:

Water Pollutants	Sources	Impacts on Water Quality
Nutrient Pollution (e.g., nitrogen, phosphorus)	Agricultural fields; sewage treatment plants; lawns	Nutrient pollution causes algal blooms. When these blooms die, they decrease oxygen levels in the water, killing aquatic species.
Sediment Pollution (e.g., sands, soils, etc.)	Construction sites; agricultural fields	Sediment pollution can smother aquatic organisms; cloud the water reducing sunlight needed by aquatic plants; and inhibit the natural flow of streams.
Toxic Pollution (e.g., oil, mercury)	<i>Point sources</i> , e.g., industry, wastewater treatment plants <i>Non-point sources</i> , e.g., automobile emissions, pesticides from fields	Toxic pollutants can affect the reproduction, development, and survival of living organisms.

4. List three things that people can do to protect the water quality of rivers and streams.

Possible answers may include:

- Reduce impervious surfaces, such as roads and parking lots.
- Reduce consumption of water.
- Create rain gardens, which are designed to capture and filter runoff from impervious areas.
- Plant streamside forests, which filter water and trap sediment.
- Create and implement stormwater management plans.
- Farmers can implement soil conservation plans, such as planting cover crops after harvesting and no-till farming; can construct stream bank fencing to keep cattle out of waterways; and can plant vegetated buffers at the edge of crop fields.