

1. Red blood cells (and other animal cells) placed in a distilled water solution usually swell up and burst. What prevented the red onion cells from swelling up and bursting when they were placed in the distilled water?

2. Why do grocery store owners spray fresh fruits and vegetables with water?

3. Roads are sometimes salted to melt ice. What does this do to plants around the roadside? Explain your answer.

4. If a shipwrecked crew drinks sea water, they will probably die. Explain this using the words osmosis, hypertonic, and hypotonic in your response.

5. If a bowl of fresh strawberries is sprinkled with sugar, a few minutes later the berries will be covered with juice. Why

6. If a person drinks a very large amount of water in a short time, this may result in confusion, seizures, coma, or even death, due to abnormal functioning of nerve cells in the brain. Explain how these problems could result from drinking too much water too rapidly.

7. Suppose that an animal's cells had cell walls. What problems would this cause for the animal?

8. Some bacteria (single cell organisms) live in extremely salty water such as the Great Salt Lake or the Dead Sea. Most types of cells would shrivel and die in this very salty water, but these bacteria live! List three ways in which do you think these bacteria prevent water loss while living in very salty water.

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