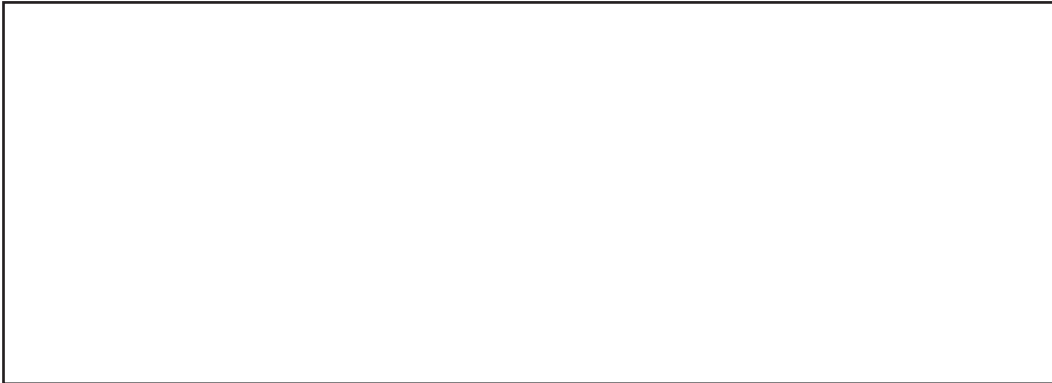


Cactus Spine

Procedure

- 1. Record Data** Work with a partner. In the space below, make a sketch of the cactus. Use tweezers to pull a spine off the cactus. **Safety:** Never touch a cactus. Cactus spines can be sharp.



- 2. Observe** Look at the spine with a hand lens. The spine is a leaf of the cactus. Record your observations on the lines below.

- 3. Observe** Use a plastic spoon to gently move some of the soil around the base of the cactus. Use the spoon to remove a small amount of soil. Place the soil on a sheet of paper. Observe the soil with a hand lens. Record your observations on the lines below.

4. Continue to move soil around the base of the cactus until you can see some roots. Add them to your sketch on the previous page. Note whether the roots grew deeply or were close to the surface of the soil.
5. **Analyze Data** On your sketch of the cactus, label its roots, stem, and leaves.

Conclusion

Write the answers to the questions below.

1. **Infer** Based on your observations, where do you think a cactus lives?

2. **Infer** How do the parts of a cactus help it survive where it lives?

Investigate More!

Solve a Problem In some dry places, people use large amounts of water for lawns. Many communities are trying to reduce water use. How could these people help save water?