

# Surviving Winter • The Advantages of Being a Conifer

Name \_\_\_\_\_

Conifers have many amazing characteristics that help them survive and thrive in a tremendous variety of climates around the world—from coastal rain forests to the frigid northern reaches of Siberia. Answer the questions below about conifer adaptations.

1. Most conifers are evergreen, meaning they keep most of their leaves year-round. How might this help them survive?
2. Conifer leaves are shaped like needles (or sometimes are like tiny scales, as for cedars and junipers). What advantage does this give them in winter?
3. Conifer needles remain on the tree for several years before falling off. How is this a helpful adaptation, particularly on sites with poor soil?
4. Conifer needles are shiny and waxy. How are these qualities useful in a wintery climate?
5. Conifers have very small pores in their leaves, compared with the pores in deciduous leaves, and these pores close more tightly than those on deciduous trees. What advantage does this give them?
6. In winter, water flows out of conifer cells and into the spaces in between the cells. How does this help them survive below-freezing temperatures?
7. Most young conifers and many mature conifers are conical in shape. Why is this a helpful trait in a winter climate?
8. The branches of many conifers attach to the trunk at an obtuse angle (meaning they point toward the ground). How might this help them survive the winter?
9. Conifer wood is very flexible and is made up of longer fibers than deciduous wood. Why is this a useful winter adaptation?
10. Many conifers produce a thick and sticky resin, that oozes out when the tree is wounded (it's what gives many conifers their distinctive aromas). How does this resin help a conifer survive?