## What can tree rings show us?

A tree's trunk expands from the centre, laying down a new 'ring' each year. In good years, when there is plenty of rain and sunshine, the rings are thick; in very dry years, they are thin. By counting the number of rings, we can find out the age of a tree that has died or been chopped down.



## The toughest trees

Conifer trees such as fir and spruce are designed to survive extreme cold. Their needlelike leaves store water and the drooping branches help the trees shed snow. The sap, which carries water and nutrients through the tree, undergoes a chemical change that stops it from freezing. Tough scales packed into tight cones protect the seeds.



## **Talking trees**

Scientists have discovered that trees can communicate. If a tree is attacked by insects, its leaves produce a scent that tells neighbouring trees to produce more anti-insect chemicals such as tannins. Networks of fungi growing among tree roots also pass on chemical alarm signals.





