

Tree Rings Can Provide a Lot of Information!

Dendrochronology (from the Greek dendron, 'tree limb'; khronos, 'time' and -logia, the study of) looks at patterns in the tree rings to identify and date events that have influenced the growth of a tree including wildfires, rockfalls, snow avalanches, insect activity, wildlife damage.

DENDROLOGY

ACTIVITY TO EXPLORE INFORMATION FOUND IN TREE RINGS

CLIMATE

Depth of rings indicates if that year was one of warmth and good rainfall or colder and dry.

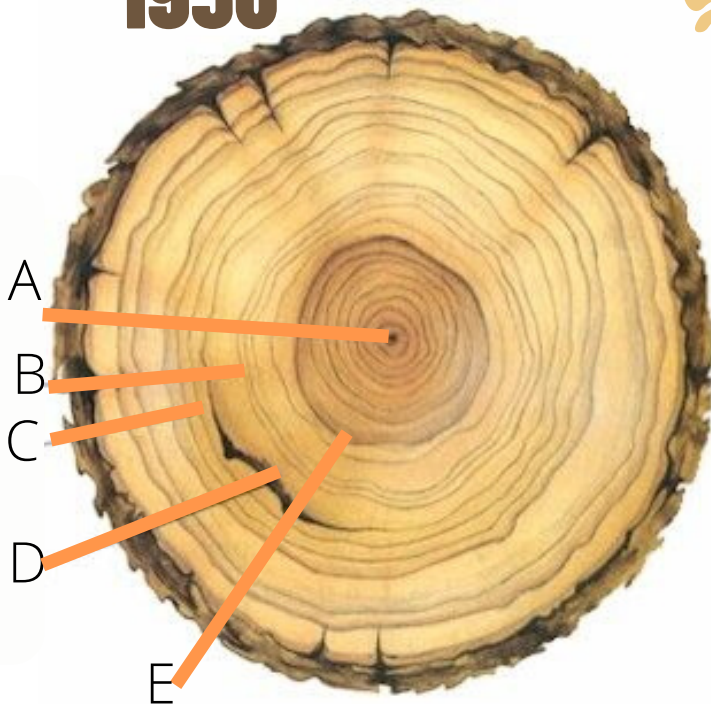
DISASTERS

Unusual ring shapes can indicate a tree was tipped. Dark markings can indicate fire.

AGE

Counting the dark rings from the center to last ring before the bark indicates tree age.

CROSS SECTION OF TREE 'BORN' IN 1930



COMPLETE THESE ON THE ANSWER SHEET USING THE TREE CROSS SECTION

- A What does this point represent about the age of the tree?
- B What were the likely climate conditions during this period.? How old was the tree at this time?
- C What were the likely climate conditions during this period.? How old was the tree at this time?
- D What kind of natural disaster occurred here? How old was the tree?
- E What might have caused these unusual-shaped tree rings?

Answers

A

B

C

D

E

How old is this tree? What year did the fire occur? What year did it die?

Answer Key

A

It represents 1930, the year the tree germinated.

B

The ring is wider so the growing conditions were likely warm and wet. The tree was 13 years old.

C

The rings are narrow so there were likely a few years of colder, dryer weather or the tree could have had an insect infestation that ate a lot of its leaves. The tree was about 15 years old at this time.

D

The darker brown patch means that the tree was exposed to fire during that year. The tree was 13 years old at the time of the fire.

E

The unusual shaped rings mean that something pushed against the tree like a rock-slide, avalanche, or competing trees. The rings are now wider on the lower side as the tree builds "reaction wood" to help support it.

How old is this tree? What year did the fire occur? What year did it die?

This tree grew to 18 years. The fire occurred when the tree was 13 years, so the fire happened in 1943. The tree died in 1948.

*Use this diagram to help
counting rings if needed.*

