



LITTLE WYOMING

GROWING OLD, KEEPING HISTORY



DENDROCHRONOLOGY

Go outside in nature and look around. What's the oldest living plant or animal that you see? Chances are, it's a tree! Trees are some of the longest-living species on Earth. Ponderosa pines, a widespread tree in Wyoming, can live for 500 years. Some species, like bristlecone pine trees, can live thousands of years. The most famous, nicknamed Methuselah, is thought to be almost 5,000 years old!

Want to try your hand at being a dendrochronologist?

Visit bit.ly/UCARTreeRings with your parent's permission.

ON THE COUNT OF RING

Trees usually develop a ring that consists of two layers as they expand in girth each growing season. The light colored layer of the ring is typically thicker; this layer forms quickly during the spring and summer growing season. As growth slows in the fall, a thinner, darker layer is formed. Scientists can count the rings of the tree to tell how long the tree lived. They can even do this for living trees, by taking a core sample from the trunk in a manner that doesn't harm the tree.

LIVING HISTORY BOOK

The National Weather Service has only been recording daily weather for the past 100-150 years. So how do we know what past climates were like before then? Trees kept the record! Dendrochronologists can look at the structure and size of tree rings to learn when there was drought, heavier-than-average precipitation, or cooler or hotter periods. For example, periods of drought can cause narrower rings. Wider rings can indicate years with wetter weather. Rings of consistent width indicate that the climate was steady for years. Tree rings can also tell scientists when events like earthquakes, floods, lightning strikes and insect infestations occurred in the local area!

BLUE STAIN
from a bark
beetle attack

V MARKINGS
a branch grew here

NARROW RINGS
a sign of serious drought
or insect infestation

RED SHADOW
from sticky sap
the tree produces
to defend itself
from beetles

WIDE RINGS
indicate lots of
sunshine and rain

BARK
protects
the tree

**FIRE
SCAR**