Name: _____ Date: _____

What Tree Rings Tell Us

Circle group

Look at the top of a tree stump. You will see a pattern of circles. They grow bigger and bigger, like ripples around a pebble in water. These circles are called tree rings. They hold a secret record of the tree's life.

A tree grows a new layer of wood each year, just under its bark. In spring and early summer, the weather is warm and wet. The tree grows fast, and the wood is light in color. Later in the year, growth slows down. The wood is darker and denser. One light band and one dark band make a single ring. Count the rings, and you can learn how many years the tree lived.

The rings also show the weather. In a year with lots of rain, the ring is wide, because the tree grew a lot. In a dry year, the ring is thin. Scientists can read these patterns like a diary. They can learn about droughts and fires that happened long before anyone wrote them down.

A scientist does not have to cut down a tree to study its rings. A special tool pulls out a thin core of wood about as wide as a drinking straw. The tree is not harmed. It keeps on growing.

Questions

1. What do tree rings look like?

_____

_____

2. What do one light band and one dark band make together?

_____

_____

3. What does a wide ring tell you about the weather that year?

_____

_____

4. How can scientists learn about the past from tree rings?

_____

_____

5. How do scientists study rings without cutting down the tree?

_____

_____

Words to know

stump: the part of a tree left in the ground after it is cut
bark: the tough outer covering of a tree
denser: packed more tightly together
drought: a long time with very little rain
core: a thin round sample pulled out from the middle of something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

What Tree Rings Tell Us

Triangle group

If you ever see a tree stump, look closely at the top. You will find a pattern of circles that grow bigger and bigger, like ripples around a pebble in water. These circles are called tree rings, and they hold a secret record of the tree's life.

A tree grows a new layer of wood each year, just beneath its bark. In spring and early summer, when the weather is warm and wet, the tree grows quickly and the wood is light in color. Later in the year, growth slows down and the wood becomes darker and denser. Together, one light band and one dark band make a single ring. By counting the rings, you can learn how many years the tree lived.

The rings also show what the weather was like. In a year with plenty of rain, the ring is wide because the tree grew a lot. In a dry year, the ring is thin. Scientists who study tree rings can read these patterns like a diary, and they can learn about droughts and fires that happened long before anyone wrote them down.

A scientist does not have to cut down a tree to study its rings. Instead, a special tool pulls out a thin core of wood about as wide as a drinking straw. The tree is not harmed, and it keeps on growing.

Questions

1. What do tree rings look like?

_____

_____

2. What do one light band and one dark band make together?

_____

_____

3. What does a wide ring tell you about the weather that year?

_____

_____

4. How can scientists learn about the past from tree rings?

_____

_____

5. How do scientists study rings without cutting down the tree?

_____

_____

Words to know

stump: the part of a tree left in the ground after it is cut
bark: the tough outer covering of a tree
denser: packed more tightly together
drought: a long time with very little rain
core: a thin round sample pulled out from the middle of something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

Name: _____ Date: _____

What Tree Rings Tell Us

Square group

If you ever come across a tree stump, examine its top surface closely. You will discover a pattern of circles that grow larger and larger, like ripples spreading around a pebble dropped in water. These circles are called tree rings, and they preserve a hidden record of the tree's entire life.

A tree produces a new layer of wood every year, just beneath its bark. In spring and early summer, when the weather is warm and wet, the tree grows rapidly and the wood is light in color. Later in the year, growth slows and the wood becomes darker and denser. One light band and one dark band together form a single ring, so by counting the rings you can determine how many years the tree lived.

The rings also reveal what the weather was like. In a year with abundant rain, the ring is wide because the tree grew a great deal, whereas in a dry year the ring is thin. Scientists who study tree rings can interpret these patterns like a diary, learning about droughts and fires that occurred long before anyone wrote them down.

A scientist does not need to cut down a tree in order to study its rings. Instead, a specialized tool extracts a thin core of wood about as wide as a drinking straw. The tree is not harmed, and it continues to grow.

Questions

1. What do tree rings look like?

_____

_____

2. What do one light band and one dark band together form?

_____

_____

3. What does a wide ring reveal about the weather that year?

_____

_____

4. How can scientists learn about the distant past from tree rings?

_____

_____

5. How do scientists study rings without cutting down the tree?

_____

_____

Words to know

stump: the part of a tree left in the ground after it is cut
bark: the tough outer covering of a tree
denser: packed more tightly together
drought: a long time with very little rain
core: a thin round sample pulled out from the middle of something

Talk together (every group has these)

1. Find one fact that every group read. How did your sheet say it?
2. What did your sheet tell you that you think another group's did not? Ask them.
3. What is one question about this topic that none of the sheets answered?

For the teacher: What Tree Rings Tell Us

Each student sheet carries a shape, not a level. The same topic and facts, written three ways.

Circle: What Tree Rings Tell Us

Easier · 209 words · Flesch-Kincaid grade 2.3

1. Circles that grow bigger and bigger.
2. One ring, which is one year of growth.
3. There was lots of rain, so the tree grew a lot.
4. They read the ring patterns like a diary of droughts, fires, and weather.
5. They pull out a thin core of wood with a special tool.

Triangle: What Tree Rings Tell Us

This passage · 227 words · Flesch-Kincaid grade 4.7

1. A pattern of circles that grow bigger and bigger.
2. One ring, which is one year of growth.
3. There was plenty of rain, so the tree grew a lot.
4. They read the ring patterns like a diary of droughts, fires, and weather.
5. They pull out a thin core of wood with a special tool.

Square: What Tree Rings Tell Us

Harder · 230 words · Flesch-Kincaid grade 7

1. A pattern of circles that grow larger and larger.
2. A single ring, which is one year of growth.
3. There was abundant rain, so the tree grew a great deal.
4. They interpret the ring patterns like a diary of droughts, fires, and weather.
5. A specialized tool extracts a thin core of wood.