Ring Detectives

Use evidence to monitor comprehension.

6.5.I "monitor comprehension and make adjustments such as re-reading, using background knowledge, asking questions, and annotating when understanding breaks down."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB As you read, underline one detail that clarifies a confusing idea, circle words that show uncertainty, and write a small 1 beside one place where you would stop to ask a question. These marks help you notice when you need to adjust your reading.

What Tree Rings Can Tell Us

1. Each year, many trees add a new layer of wood just under their bark. In places with clear seasons, this growth often forms a visible ring. A wide ring may show that the tree grew quickly during a favorable year, while a narrow ring may show slower growth. Scientists called dendrochronologists study these patterns. They take a tiny core sample from a living tree or examine wood from an old building, then compare the rings with rings from other trees in the same area.

2. Rings can help researchers estimate a tree's age because one ring usually represents one year of growth. However, reading rings is not as simple as counting lines. Fire scars, insect damage, crowded roots, and drought can all affect growth. A narrow ring does not always mean drought, and some trees may form unusual rings after stress. When a pattern seems confusing, scientists compare it with weather records, lake sediments, and rings from nearby trees. Using several sources helps them build a more reliable picture of past conditions.

3. Tree-ring evidence can reveal local changes, but it is not a perfect record of weather. For example, a tree growing beside a stream may have enough water during a dry year, so its ring could be wider than rings in a drier spot. Researchers also must identify the correct year for each ring. They match distinctive patterns, such as several narrow rings in a row, across many samples. This careful matching can show whether a pattern belongs to one tree or to a larger regional event.

2 ANSWER WITH EVIDENCE

Use the passage

1. Suppose you first thought that every narrow ring proves there was a drought. What adjustment should you make, and which sentence should you reread?

2. Use the example of a tree beside a stream and what you know about water. Why might its ring be wider during a dry year?

3. Which detail best supports the idea that tree rings are not a perfect weather record?

4. Choose one word or phrase that shows uncertainty in the passage. What does it tell you?

3 YOUR TURN

Your own words

Choose one sentence from the passage that makes you pause. In exactly two sentences, write one question you would ask and explain one adjustment you would make to understand it better.

ANSWER KEY

Ring Detectives

GRADE 6 · TEKS 6.5.I

PART 1 · READ AND MARK

As you read, underline one detail that clarifies a confusing idea, circle words that show uncertainty, and write a small 1 beside one place where you would stop to ask a question. These marks help you notice when you need to adjust your reading. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Suppose you first thought that every narrow ring proves there was a drought. What adjustment should you make, and which sentence should you reread?	**Reread: "A narrow ring does not always mean drought, and some trees may form unusual rings after stress."**
2	Use the example of a tree beside a stream and what you know about water. Why might its ring be wider during a dry year?	**The tree may still have enough water from the stream, so it can grow more than trees in drier places.**
3	Which detail best supports the idea that tree rings are not a perfect weather record?	**A tree beside a stream may have enough water during a dry year, so its ring could be wider than rings in a drier spot.**
4	Choose one word or phrase that shows uncertainty in the passage. What does it tell you?	**Answers vary. For example, "may" shows that the result is possible, not certain.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

What information can lake sediments give scientists about past conditions? I would circle "lake sediments," reread the sentence, and use what I know about layers recording changes over time.

Accept reasonable annotations that identify uncertainty, a confusing point, or a detail that helps clarify an idea. For the open response, accept exactly two sentences containing a relevant question and a specific comprehension adjustment, such as rereading, using background knowledge, asking another question, or annotating.