NOT BORING MEDIA

THE LAKE THAT KILLS EVERYTHING

High-Interest Nonfiction Reading Passage

WHAT'S INCLUDED

✓ Reading Passage ✓ Comprehension Questions
✓ Answer Key ✓ Teacher Guide

GRADES 4-6 • LEXILE ~750L • DOK LEVELS 1-4

Reading they'll actually do.

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WHAT'S INCLUDED

✓ High-interest nonfiction reading passage (300-400 words)

✓ 6 comprehension questions spanning DOK levels 1-4

✓ Complete answer key with explanations

✓ Teacher guide with standards, pacing, and extensions

Questions or feedback? Leave a review or message us through TPT!

THE LAKE THAT KILLS EVERYTHING

In the northwest corner of Cameroon, Africa, there lies a lake that can kill every living thing within miles of its shores in a matter of minutes. Lake Nyos sits in the crater of an ancient volcano that slowly leaks carbon dioxide gas into the water from magma chambers deep underground. Under the right conditions, the lake can suddenly release this accumulated gas in a catastrophic eruption that suffocates everything in its path.

On August 21, 1986, those conditions were met with devastating consequences. Something—perhaps an underwater landslide, perhaps a sudden change in temperature—triggered a massive release of carbon dioxide from the lake's depths. A dense cloud of gas heavier than the surrounding air rolled down from the crater and through the surrounding valleys, displacing oxygen and suffocating everything it encountered.

The disaster killed 1,746 people and approximately 3,500 livestock within a 15-mile radius of the lake. Many victims were found in their homes and beds, having died silently in their sleep as the invisible gas displaced the oxygen they needed to breathe. Survivors who happened to be at higher elevations or inside sealed buildings described watching the deadly cloud approach across the landscape with no way to escape its path.

Scientists call this phenomenon a limnic eruption. Carbon dioxide from volcanic sources dissolves continuously into the lake's deep water under high pressure. Usually, that pressure keeps the gas safely in solution—like carbonation staying dissolved in a sealed soda bottle. But if something disturbs the system and reduces that pressure, the gas can suddenly release in catastrophic quantities, just like opening a shaken soda bottle.

Scientists now continuously monitor Lake Nyos and nearby Lake Monoun, which experienced a smaller but still deadly eruption in 1984. Engineers have installed degassing pipes that continuously release carbon dioxide in small, controlled amounts, preventing the dangerous buildup that caused the 1986 disaster.

Only three lakes in the entire world are known to pose this particular threat, all located in Africa. The solution is remarkably simple technology, but implementing it requires resources and international attention that impoverished regions often struggle to secure.

Word Count: 350 | Lexile: ~750L | Grades 4-6 | Source: IgNobel Prize research

COMPREHENSION QUESTIONS

Name: _____ Date: _____

1 **How many people died in the 1986 disaster?**

- ◯ A) 176
- ◯ B) 746
- ◯ C) 1,746
- ◯ D) 17,460

2 **What gas killed the victims?**

- ◯ A) Oxygen
- ◯ B) Carbon dioxide
- ◯ C) Methane
- ◯ D) Hydrogen

3 **Why is carbon dioxide deadly here?**

- ◯ A) It's poisonous
- ◯ B) It's heavier than air and displaces oxygen
- ◯ C) It explodes
- ◯ D) It's radioactive

4 **How are scientists preventing future eruptions?**

- ◯ A) Draining the lake
- ◯ B) Installing pipes that release CO2 continuously
- ◯ C) Evacuating everyone
- ◯ D) Covering the lake

5 **Why is Lake Nyos compared to a soda bottle?**

- ◯ A) Same size
- ◯ B) Gas stays dissolved under pressure but releases when disturbed
- ◯ C) People drink from it
- ◯ D) It fizzes

6 **What does this reveal about natural hazards in developing regions?**

- ◯ A) All lakes are dangerous
- ◯ B) Simple technology can prevent disasters but requires resources poor regions lack
- ◯ C) Africa has the most lakes
- ◯ D) Nothing can be done

ANSWER KEY

The Lake That Kills Everything

1. C) 1,746

DOK 1 — Recall.

2. B) Carbon dioxide

DOK 1 — Recall.

3. B) It's heavier than air and displaces oxygen

DOK 2 — Inference.

4. B) Installing pipes that release CO2 continuously

DOK 2 — Inference.

5. B) Gas stays dissolved under pressure but releases when disturbed

DOK 3 — Analysis.

6. B) Simple technology can prevent disasters but requires resources poor regions lack

DOK 4 — Extended Thinking.

TEACHER GUIDE

The Lake That Kills Everything

STANDARDS ALIGNMENT

- CCSS.ELA-LITERACY.RI.4.1 — Refer to details and examples in a text
- CCSS.ELA-LITERACY.RI.5.4 — Determine meaning of words and phrases
- CCSS.ELA-LITERACY.RI.5.8 — Explain how author uses evidence
- NGSS — Connections to scientific practices

PACING OPTIONS

- Quick Read (10-15 min): Passage + questions 1-4
- Standard (20-25 min): Full passage + all questions
- Deep Dive (35-40 min): Add discussion + extension

DISCUSSION QUESTIONS

- The solution to Lake Nyos is simple technology. Why might it still be difficult to implement?
- Should wealthy nations help fund hazard prevention in poor regions?
- What other invisible natural hazards might exist that we haven't discovered?

EXTENSION ACTIVITIES

- Research limnic eruptions and map known dangerous lakes.
- Design an early warning system for a limnic eruption.
- Calculate how much CO2 the lake must have released based on the affected area.

DIFFERENTIATION

- Struggling: Pre-teach vocabulary, partner reading
- Advanced: Add research, compare to related events
- ELL: Visual supports, pre-teach context

SOURCE

- IgNobel Prize research / Georgia Tech study