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# NOT BORING MEDIA

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## THE RED RAIN MYSTERY

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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 RED RAIN MYSTERY

For two months in the summer of 2001, red rain fell across the Indian state of Kerala. The water stained clothes, collected in buckets with a crimson tint, and left residents wondering if they were witnessing a sign from the gods—or something even stranger.

The phenomenon began on July 25 and continued sporadically until late September. Downpours would start normally, then suddenly turn red, pink, or sometimes yellow. The colored rain fell in localized bursts—one neighborhood might receive blood-red water while the next got ordinary rain. Scientists estimated that over 50,000 kilograms of red particles fell during those two months.

Initial reports sparked wild speculation. Some suggested a meteor had exploded in the atmosphere, scattering alien particles. Others claimed the red substance was blood, pointing to the rain as a biblical omen. Local newspapers ran headlines about "blood rain" and mysterious phenomena.

Scientists rushed to investigate. Early hypotheses included dust blown from Arabian deserts, residue from volcanic eruptions, or industrial pollution. But when researchers examined the red particles under microscopes, they found something surprising: the particles appeared to be biological. They had cell-like structures and seemed to reproduce under certain conditions.

This discovery led to one of the most controversial theories in modern science. Physicist Godfrey Louis proposed that the particles might be extraterrestrial—living cells that originated in space. His paper sparked intense debate. Most scientists were deeply skeptical. Extraordinary claims, they noted, require extraordinary evidence.

The mystery was eventually solved—mostly. Further analysis identified the red particles as spores from local algae in the genus *Trentepohlia*, which commonly grows on trees in tropical climates. A heavy bloom, combined with unusual weather, had released massive amounts of spores into the atmosphere.

Not everyone accepts this explanation. Some researchers continue to study the particles, pointing to unusual characteristics. The red rain of Kerala remains a case study in how quickly unexplained phenomena can spark extraordinary theories—and how difficult it can be to fully close a mystery.

Word Count: 327 | Lexile: ~750L | Grades 4-6 | Source: Vatican News

## COMPREHENSION QUESTIONS

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**1** How long did the red rain phenomenon last in Kerala?

- ☐ A) One week
- ☐ B) About two months
- ☐ C) Six months
- ☐ D) One year

**2** What did scientists eventually determine caused the red color?

- ☐ A) Blood from animals
- ☐ B) Volcanic ash
- ☐ C) Spores from local algae
- ☐ D) Alien cells from a meteor

**3** What does the phrase 'extraordinary claims require extraordinary evidence' mean?

- ☐ A) Scientists should believe unusual theories quickly
- ☐ B) The more unusual a claim, the stronger the proof needs to be
- ☐ C) Ordinary evidence is always sufficient
- ☐ D) Scientists should never investigate unusual phenomena

**4** Why did physicist Godfrey Louis's theory spark 'intense debate'?

- ☐ A) He claimed the particles were poisonous
- ☐ B) He proposed the particles might be extraterrestrial living cells
- ☐ C) He said the rain was a religious sign
- ☐ D) He accused the government of causing the rain

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The passage shows how the red rain sparked theories ranging from alien life to algae spores. What does this progression tell us about how people respond to unexplained phenomena? Why might extraordinary explanations be appealing?

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The passage ends by noting that 'some researchers continue to study the particles' and the mystery isn't 'fully closed.' In science, when is it appropriate to accept an explanation as 'good enough,' and when should investigation continue?

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## ANSWER KEY

### The Red Rain Mystery

**1. B) About two months**

*DOK 1 — Recall. The passage states the phenomenon continued 'from July 25... until late September'—about two months.*

**2. C) Spores from local algae**

*DOK 1 — Recall. The passage states: 'Further analysis identified the red particles as spores from local algae.'*

**3. B) The more unusual a claim, the stronger the proof needs to be**

*DOK 2 — Vocabulary in context. The phrase is used when scientists were skeptical of the extraterrestrial theory—suggesting alien origins would require very strong proof.*

**4. B) He proposed the particles might be extraterrestrial living cells**

*DOK 2 — Text evidence. The passage states Louis 'proposed that the particles might be extraterrestrial—living cells that originated in space.'*

**5. Sample Response:**

When something strange happens, people often jump to dramatic explanations before considering mundane ones. Extraordinary explanations are appealing because they're exciting and make the unexplained feel important. The red rain went from 'alien cells' to 'algae spores'—much less thrilling. This shows that careful scientific investigation often finds ordinary causes for seemingly extraordinary events.

**6. Sample Response:**

Answers will vary. Accepting an explanation might be appropriate when evidence strongly supports it and it explains most observations. Continuing investigation makes sense when anomalies remain unexplained or new tools become available. The algae explanation fits most evidence but not perfectly. Strong responses will consider that science is rarely 100% certain—we work with the best available explanation while remaining open to new evidence.

## **TEACHER GUIDE**

### The Red Rain Mystery

#### **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
- C3 Framework — Historical thinking skills

#### **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**

- Scientists proposed alien cells before identifying algae spores. Why do extraordinary explanations often seem more appealing than ordinary ones?
- The mystery is 'mostly' solved—some questions remain. How do we know when an explanation is 'good enough'?
- Media ran headlines about 'blood rain' and alien life. How does sensational reporting affect how we understand scientific events?

#### **EXTENSION ACTIVITIES**

- Science: Research how scientists identified the particles as algae spores. Diagram the investigation process.
- Media Literacy: Find headlines about the red rain from 2001. How did sensational vs. scientific reporting differ?
- Writing: Write two news articles about the same event—one sensational, one scientific. Compare the effect.

#### **DIFFERENTIATION**

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

#### **SOURCE**

- Vatican News / Catholic Encyclopedia