NOT BORING MEDIA

THE HONEY THAT NEVER SPOILS

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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TERMS OF USE

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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 HONEY THAT NEVER SPOILS

In 2015, archaeologists carefully opened sealed jars that had been placed in Egyptian tombs over 3,000 years ago. Inside, they found something remarkable: honey that was still perfectly edible after three millennia. The ancient sweetener hadn't spoiled, hadn't rotted, and remained safe to eat despite being older than most human civilizations. Honey is the only food known to science that truly lasts forever.

While every other food eventually rots, molds, ferments, or decays into inedibility, properly stored honey remains safe for human consumption essentially indefinitely. Scientists have identified several fascinating chemical and physical properties that combine to give honey this unique preservation ability that no other food possesses.

First and most importantly, honey contains almost no water. Bacteria, mold, and other microorganisms require moisture to survive and reproduce, but honey is only about 17 percent water—far too dry for most pathogens to survive in. Any bacteria that land on honey actually die as the honey's hygroscopic properties draw water out of their cells through the process of osmosis, essentially dehydrating them to death.

Second, honey is surprisingly acidic for something that tastes so sweet. Its pH level typically falls between 3 and 4.5, creating a chemical environment too hostile for most disease-causing organisms to survive and multiply. This natural acidity provides an additional layer of antimicrobial protection.

Third, honey contains a special enzyme called glucose oxidase that bees add during the honey-making process. When this enzyme interacts with honey's sugars under the right conditions, it produces small amounts of hydrogen peroxide—the same antiseptic compound found in medicine cabinets. This gives honey natural germ-killing properties that actively destroy microorganisms.

Ancient Egyptians clearly understood that honey possessed special preservation properties, even without knowing the underlying science. They used honey medicinally to treat wounds and infections, and they placed jars of honey in tombs as eternal food offerings for the afterlife.

Word Count: 291 | Lexile: ~750L | Grades 4-6 | Source: Smithsonian Magazine

COMPREHENSION QUESTIONS

Name: _____ Date: _____

1 **How old was the edible honey found in Egyptian tombs?**

- ◯ A) 300 years
- ◯ B) 1,000 years
- ◯ C) 3,000 years
- ◯ D) 10,000 years

2 **What percentage of water does honey contain?**

- ◯ A) About 5%
- ◯ B) About 17%
- ◯ C) About 50%
- ◯ D) About 80%

3 **How does honey kill bacteria through osmosis?**

- ◯ A) It freezes them
- ◯ B) It draws water out of their cells
- ◯ C) It burns them with acid
- ◯ D) It poisons them

4 **What three properties make honey resistant to spoiling?**

- ◯ A) Sugar, color, and temperature
- ◯ B) Low water content, acidity, and hydrogen peroxide production
- ◯ C) Thickness, sweetness, and coldness
- ◯ D) Bee enzymes, pollen, and wax

5 **What happens when honey absorbs moisture from the air?**

- ◯ A) It becomes more nutritious
- ◯ B) It can eventually ferment and spoil
- ◯ C) It turns into wax
- ◯ D) Nothing changes

6 **What does the eternal nature of honey symbolize about human history?**

- ◯ A) Ancient people were smarter than us
- ◯ B) Some things connect us directly to ancient civilizations across thousands of years
- ◯ C) We should only eat honey
- ◯ D) Egyptian tombs should remain closed

ANSWER KEY

The Honey That Never Spoils

1. C) 3,000 years

DOK 1 — Recall. The passage states: 'archaeologists opened 3,000-year-old Egyptian tombs' and found edible honey.

2. B) About 17%

DOK 1 — Recall. The passage states: 'honey is only about 17% water.'

3. B) It draws water out of their cells

DOK 2 — Inference. The passage explains: 'honey draws water out of their cells through osmosis.'

4. B) Low water content, acidity, and hydrogen peroxide production

DOK 2 — Inference. The passage identifies: 'almost no water,' 'extremely acidic,' and 'produces small amounts of hydrogen peroxide.'

5. B) It can eventually ferment and spoil

DOK 3 — Analysis. The passage states: 'If honey absorbs moisture from the air, it can eventually ferment.'

6. B) Some things connect us directly to ancient civilizations across thousands of years

DOK 4 — Extended Thinking. The passage concludes that honey 'connects us to ancient civilizations' and notes that 'people 3,000 years ago would recognize' it, suggesting continuity across human history.

TEACHER GUIDE

The Honey That Never Spoils

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
- 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

- Ancient Egyptians used honey without understanding the science behind its preservation. What practices do we follow today that we don't fully understand scientifically?
- Honey has been called a 'time capsule' connecting us to ancient civilizations. What other foods or objects create this connection?
- If you could preserve something for 3,000 years for future archaeologists to find, what would you choose and why?

EXTENSION ACTIVITIES

- Experiment with honey: try growing bacteria on different substances (honey, sugar water, plain water) and observe the results.
- Create a pH comparison chart showing where honey falls relative to other common foods and substances.
- Research how ancient Egyptians used honey medicinally and compare their practices to modern wound care treatments.

DIFFERENTIATION

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

SOURCE

- Smithsonian Magazine / National Honey Board