



Every Breath You Take Has a History

Reading Worksheet — Level C | tahricteaches.com

Right now, take a deep breath. That air is full of billions of tiny pieces called **molecules**. A molecule is a tiny group of atoms joined together. **Oxygen** molecules are what your body needs to live. But here is something amazing: some of those molecules may have been breathed by famous people from history — like Julius Caesar or Cleopatra!

How is that possible? Air does not stay in one place. It moves around the entire Earth over many years. When someone breathes out, those tiny molecules spread into the **atmosphere** — the layer of air that covers our planet. Over hundreds of years, those same molecules get mixed into all the air on Earth.

A scientist named **Avogadro** discovered that every breath of air contains an enormous number of molecules. That number is so big it is hard to imagine. But it helps scientists figure out that at least one molecule in every breath you take was probably breathed by Julius **Caesar** on the very day he died — about 2,000 years ago!

This is not just a fun story. It shows us how connected we all are — not just to people alive today, but to all the people who ever lived on Earth. Every breath connects you to history. Scientist Neil deGrasse Tyson loves sharing this idea to help people feel how amazing and connected our world really is.



A. Vocabulary Matching

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|---------------|---|
| 1. molecule | a. a tiny group of atoms joined together |
| 2. atmosphere | b. a famous Roman leader who lived about 2,000 years ago |
| 3. oxygen | c. the gas in the air that living things need to breathe |
| 4. Avogadro | d. the layer of air that surrounds the Earth |
| 5. Caesar | e. a scientist who studied the number of molecules in gases |



B. True or False

1. T F A molecule is a tiny group of atoms.
2. T F Oxygen is the gas our bodies need to live.
3. T F Air molecules stay in one place forever.
4. T F Avogadro studied the number of molecules in gases.
5. T F Julius Caesar lived about 2,000 years ago.
6. T F When you breathe out, your molecules disappear completely.
7. T F Some molecules from Julius Caesar's breath may be in the air today.
8. T F Neil deGrasse Tyson thinks the breath fact is boring and unimportant.



C. Fill in the Blanks

Word Bank: atmosphere molecule oxygen Caesar connected

1. A tiny group of atoms joined together is called a _____.

2. The layer of air that surrounds Earth is called the _____.

3. Living things need _____ to breathe.

4. Julius _____ was a famous Roman leader who lived 2,000 years ago.

5. Every breath shows that all people in history are _____ to each other.

D. Comprehension Questions

1. What is a molecule?

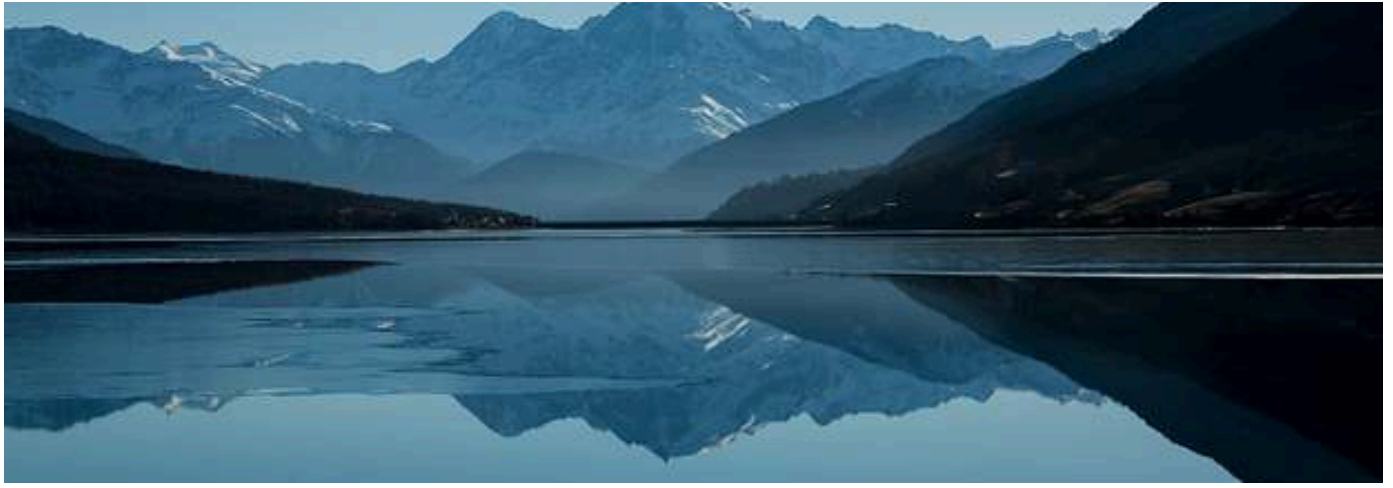
2. How do molecules from historical people's breath end up in the air we breathe today?

3. What does the "Caesar breath" idea show us about our connection to history?

E. Discussion Questions

1. How does it make you feel to know that you might be breathing molecules from someone who lived 2,000 years ago?

2. Can you think of any other ways that you are connected to people who lived long ago?



Answer Key

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A. Vocabulary

1-a, 2-d, 3-c, 4-e, 5-b

B. True or False

1-T, 2-T, 3-F, 4-T, 5-T, 6-F, 7-T, 8-F

C. Fill in the Blanks

1-molecule, 2-atmosphere, 3-oxygen, 4-Caesar, 5-connected

D. Comprehension Questions

1. A molecule is a tiny group of atoms joined together.
2. When people breathe out, their molecules spread into the atmosphere and mix with all the air on Earth over hundreds of years — so they eventually reach everyone.
3. It shows that we are physically connected to all people who ever lived — their molecules have mixed with the air we breathe today.