

Invisible Air Clues

Use observations to show that matter is made of particles too small to see.

5.6.D "illustrate how matter is made up of particles that are too small to be seen such as air in a balloon."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB In each paragraph, underline the one sentence that contains the word *because*. These three sentences explain how unseen particles can affect what you observe.

What Is Inside?

- ① A balloon looks empty before anyone blows it up, but it is not empty. Air is made of tiny particles called molecules. These molecules are far too small to see one by one because they are much smaller than anything your eyes can detect. When you blow into a balloon, more air particles enter and push outward on its stretchy rubber.
- ② Now press gently on the inflated balloon without letting air escape. The same air particles remain inside because the balloon is sealed. As the balloon becomes smaller, the particles have less space and bump into the rubber more often. Those bumps create pressure, which helps the balloon push back against your hand when pressed inward.
- ③ Air can also spread through a room. If someone opens a bottle of perfume, perfume particles move and mix with other air particles. You may smell the perfume across the room later because perfume particles moved there, even though you never saw them. The smell is evidence that tiny particles traveled through the air to you.

2 ANSWER WITH EVIDENCE Use the passage

1 What enters a balloon and pushes outward on its rubber when you blow it up?

2 Why do the same air particles stay inside an inflated balloon when you press it?

3 What happens to the space between air particles when a sealed balloon becomes smaller?

4 What observation shows that perfume particles traveled through the air?

3 YOUR TURN Your own words

Draw a sealed, air-filled plastic bag before and after you squeeze it smaller. In both panels, use the same number of dots for air particles, then write one sentence explaining what changed.



PART 1 • READ AND MARK

In each paragraph, underline the one sentence that contains the word *because*. These three sentences explain how unseen particles can affect what you observe. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What enters a balloon and pushes outward on its rubber when you blow it up?	More air particles enter and push outward on the rubber.
2	Why do the same air particles stay inside an inflated balloon when you press it?	The particles stay inside because the balloon is sealed.
3	What happens to the space between air particles when a sealed balloon becomes smaller?	The particles have less space, so they bump into the rubber more often.
4	What observation shows that perfume particles traveled through the air?	You can smell the perfume across the room even though you did not see the particles.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Panel 1 shows a sealed full bag with 12 spread-out dots labeled air particles, and Panel 2 shows the same sealed bag squeezed smaller with the same 12 closer dots, showing that squeezing changes the space between unseen particles, not their number.

Accept particle dots in both panels if the student uses the same number of dots and shows them closer together in the squeezed bag. The explanation should state that particles are too small to see and that squeezing changes their spacing, not their number in a sealed bag.