

Grade 4	Lesson: 1-2 Air - Are You There	Reference to English
Standard(s): 1.OA.1	Domain:	
Content Objective(s):	Language Objective(s):	
Investigate evidence that air is a substance	Infer relationships between wind and weather change	
Observe and record effects of air temperature on precipitation		
Essential Understanding:	Academic Vocabulary for Word Wall: Listen: Read: Write: Speak:	
Materials: <ul style="list-style-type: none"> • "My Weather Book" (1 per student) • Paper Fan • Balloon • Playground Balls (1 inflated and 1 flat) • 3 Thermometers 	Additional Lesson Vocabulary: Sentence Frames:	
Lesson: Air - Are You There	Instructional Time:	

Opening: (10 minutes)

T: What is touching your skin right now? Brainstorm a list of ideas.

- clothing (shirt, pants, socks, etc.)
- hair
- air!

T: There is air all around us. It is touching us, our desks, the floor, the walls. We need air to live.

T: You've been told about air all your life, but are you really sure it's there? You can't see it, taste it, touch it. How do you know it's real? Can you prove it exists?

Introduction to New Material (Direct Instruction): (7 minutes)**Guided Practice: (10 minutes)**

Prove It!

- Divide the students into small groups and ask them to create a way they can prove that air really exists.
- Here are a few ideas to help you and your students:

Fan:

T: Create a fan with a piece of paper or just your hand. You can feel the air move on your face. You can see other objects (like a piece of paper or light weight object) move as you fan the air around them.

Balloon or Ball:

T: Blow up a balloon. You are forcing air inside, and the outside expands and holds the air in place.

T: Show two playground balls – one inflated and one still flat. What is different? A ball does not have a round shape on its own. It need air inside.

Wind:

- Observe or discuss the wind outside. We can feel it blow against our skin. We can watch it blow our hair, clothing, or leaves on the trees around.

Breathing:

T: Breath in deeply. You can feel the air travel past through your nasal passages or inside your mouth.

T: Hold your hand in front of your nose and mouth and exhale. You can feel the warm air leave your body and touch your hand.

T: We need air (oxygen) to survive. If we are alive, then there must be air in the classroom. 😊

Temperature:

T: Air has temperature. We can feel a temperature change as we move from one room to another. Often the hallway is hotter or cooler than our classroom. The outside is often different in temperature than the inside. If there was no air, we would not feel the temperature change.

T: Try place a thermometer on the floor of the classroom (in a safe place), another thermometer on a desk, and a third thermometer near the ceiling. Wait a few minutes and compare the temperatures. Since hot air rises, the temperature near the ceiling will be higher than that near the floor.

Independent Practice: (6 minutes)

Get up and Move:

T: When you move, you can feel the air against your skin.

T: Try waving your arms, spinning in a circle, jump up and down, or running. Feel the wind against the skin of your arms and face.

Closing: (4 minutes)

Present It:

- Invite the groups of students to present their proof to the class. Can you prove that air really exists? Have the students record their proof that air really exists in their "My Weather Book."

Assessment: