

Unit 1: Building Strong Communities

WEEK 4 Lesson 1

Science and Engineering Exploring Air

S & E Big Ideas	Air is gas and is all around us. Air makes objects move. Moving air is called wind.
S & E Guiding Question	What can air do?
Content Objective	I can conduct investigations about air. (Practice 3)
Language Objective	I can discuss findings with my partner. (SL.1.1)
Vocabulary	air: a mixture of gases that we breathe blow: to produce or release air through the mouth matter: something that has mass and takes up space gas: matter that can't be seen but is all around, such as air move: to change place or direction

<p>Materials and Preparation</p>	<ul style="list-style-type: none"> ● science journals ● string, one 6ft piece ● tape (clear) ● drinking straw (not flexible or the flex portion removed), one for each group ● balloons of assorted shapes and sizes ● two objects to tie a string to Tie each end of the string between two chairs, a chair, and a door knob, or other stationary objects in the room. ● yardstick or ruler ● paper, accordion-folded fan, for demonstration ● plastic ziplock bag (gallon size), for demonstration Place the paper fan and straw inside the bag. This will be used as part of the introductory lesson. ● chart paper Write the question, What can air do? ● <i>Zoom in on Science Concepts-Air</i> by Andrea Rivera. Epic! text Epic Link: https://www.getepic.com/book/65244588/air?utm_source=t2t&utm_medium=link&utm_campaign=content&share=1442962358 ● Sci Show-Make a Balloon Rocket Link: https://www.youtube.com/watch?v=KMX7zgaLC0w <p>Cut the string to the desired length (no less than 6ft). Tie one end of the string to a stationary object to secure it. Thread the string through the straw. Tie the remaining end of the string. The string should be taut and straight. If children are able, have them inflate the balloon to a size of their choice. While pinching the end of the balloon, secure it to the underside of the straw with tape. When ready to launch the balloon rocket, release the pinched end of the balloon. Measure how far the balloon travels.</p>
<p>Opening 5 minutes</p>	<p><i>In my bag, I have several items. Let's take a look at them. I have a straw, a balloon, and a paper fan. What do you think all of these items have in common?</i></p> <p>Prompt children, if necessary.</p> <p><i>Each of these items uses air differently. Air is all around us. What do we know about air?</i></p> <p>Record children's responses on chart paper.</p> <p><i>Here are three different kinds of matter, solids, liquids, and gasses. Which do you think air is?... Air is a gas which means it takes up space and it takes the shape of whatever object is holding it. Watch this...</i></p> <p>Blow into the plastic bag.</p>

	<p><i>Do you see how this bag became inflated when I blew air into it? The bag now is holding lots of air. This week during your science studio, you will be investigating air. Today we will answer the question, What can air do?</i></p>
<p>Text 5 minutes</p>	<p>Show <i>Zoom in on Science Concepts-Air</i> by Andrea Rivera.</p>
<p>Investigation 15 minutes</p>	<p>Begin the investigation. Divide children into partners or small groups. Provide children/groups with a balloon. Discuss the safety expectations of balloon usage. Groups will come to the string and straw one at a time. One child will inflate the balloon. Another will help tape the balloon to the straw, and the final person can help complete measuring the distance the balloon has traveled along the string.</p>
<p>Closing 5 minutes</p>	<p>Show Sci Show-Make a Balloon Rocket. <i>Our question for today was, What can air do? What did you observe? How did we know there was air in the balloon? What happened when the air escaped?</i> Record responses on the chart paper. <i>This week we will be exploring what air can do during Studios.</i></p>
<p>Standards and Practices</p>	<p>Practice 3. Planning and carrying out investigations. SL.1.1 Participate in collaborative conversations with diverse partners about Grade 1 topics and texts with peers and adults in small and larger groups.</p>
<p>Ongoing assessment</p>	<p>Reflect on children’s understanding of air based on their entries in the science journal. What do children understand about air? Do they understand that air is matter and can move things? After Stations, review children’s journals. Look for evidence of understanding that air is matter. For example; air can move things, air can fill a balloon or a bag; when air moves we can feel it.</p>

<p>Notes</p>
