

Breathing is Easy, Isn't It?

Here's a riddle for you. See if you can guess what this is:

It is something we do all day long - even when we are sleeping.

And it is so important we couldn't live without doing it. What is it?



Do you know the answer???

Do you know why breathing is so important? Each and every breath we take brings **oxygen** into our body. Our brain, organs, and muscles need oxygen to work properly. So breathing in clean air is important for our bodies.

ACTIVITY:

For this activity, please find two different-sized straws. Make sure one is skinny (like a coffee stirring straw) and one is fatter (like a soda straw).

Put the big straw in your mouth and plug your nose. Try to breathe only through the straw. Can you do it? What did it feel like?



But what if you had **asthma**? Would breathing always be so easy?
Let's find out...

Now pick up the skinny straw. Put it in your mouth and plug your nose like before and try breathing only through the straw. What does it feel like? Is it harder or easier to breathe through the skinny straw?

Not everyone has asthma, but people that do have things called asthma attacks.



During an asthma attack, the airways that bring oxygen into the body tighten and swell making it hard to breathe in or out. In other words, your airways can go from the "soda straw size" to the "coffee stir stick size" making it really hard to breathe. Trying to breathe through the skinny straw may be what it feels like to have an asthma attack. Ask someone who has asthma if this is what it feels like.

Lots of things can cause an asthma attack, and it is important to learn your triggers (things that can cause an attack) if you have asthma. Triggers can be pet fur and feathers, cold air and exercise, and even **air pollution**. When we breathe in, we let everything in the air into our bodies. So if the air is really dirty, we breathe all of that dirt and pollution into our bodies - YUCK! Whether or not you have asthma, breathing in dirty air is not good for us. Dirty air can irritate healthy lungs and cause coughing and wheezing; or it can trigger an asthma attack in people with asthma. Remember, keeping our air clean is good for all of us!



What can we do to help reduce air pollution and keep the air we breathe healthy for all of us?

Breathing Is Easy, Isn't It? - Teacher's Supplement

Learning Objectives:

- Introduce asthma and demonstrate how it may feel to have an asthma attack.
- Understand asthma triggers and that air pollution is one of those triggers

Subjects:

- Health
- Science

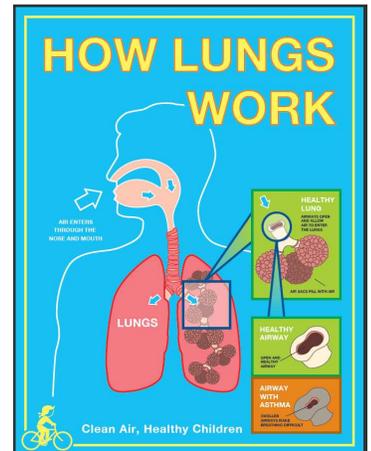
Materials:

- Cocktail straws or coffee stir-sticks
- Soda size straws
- Breathing is Easy, Isn't It? student worksheet

Background Information:

Note: This activity may be difficult for students with asthma.

- * Teachers, please remember to post or make available the bold-faced vocabulary word definitions.



Air pollution can affect the health of everyone, from mild irritation of the eyes and throat to causing an asthma attack. Asthma is a chronic lung disease that can affect people of all ages. In fact, asthma is the leading serious chronic illness of children. In this activity, the students will learn what it may feel like to have an asthma attack by breathing through straws of different diameters. Breathing through the wider straw is relatively easy. Then students try breathing through the narrow straw, which represents the narrowed airways of an asthmatic during an attack; and they realize how difficult it is to breathe.

So what happens during an asthma attack? A few things happen (see graphic): The airways (throat, bronchial tubes, and bronchioles) narrow due to swelling and inflammation. Also, the muscles around the airways tighten, further narrowing the airways. And lastly, excessive mucus is produced in the airways further blocking air flow.

Many things can trigger an asthma attack, such as cold air, pet dander, dust mites, exercise, or air pollution; so it is important for people with asthma to learn their triggers. Students will learn about asthma triggers in this activity as well.

For more information about the sources of air pollution and what we can do to reduce air pollution, see the Introduction/Background Information section.

For more information on asthma visit the American Lung Association, or request a free copy of Clean Air Healthy Children from the DNR. To order please send an e-mail to DNRAirEducation@wisconsin.gov.