What is Asthma?

Grade Level 2-3

Indoor air quality (IAQ) implies the quality of air in a building environment such as a home, office, or store. It refers to the content of interior air that might influence health, performance, and comfort of people in a building. Unlike outside air, indoor air is reused again and again. This creates added pollutants. Maintaining a good indoor air quality is important because research shows that people spend as much as 90% of their time indoors. At the conclusion of this topic students should:

- Know that indoor air is usually more polluted than outdoor air.
- Open the windows to let in fresh air.

Lesson Overview

Objectives: Students will be able to...

- Describe asthma as something that makes breathing hard for children
- Explain that asthma can be controlled so that children can live active lives
- Describe asthma as something that cannot be passed from one person to another like a cold
- Identify two things that can make asthma worse {i.e.: furry pets, smoke}

Preparation/Materials:

- One copy of “What makes Asthma Worse” cards for instructor (provided)
- Copies of “Furry Pet” handout
- Home Activity: Copies of Easy Air Fresheners handout

Procedure (Total Time):

- Activity 1 (5 minutes): Introduction to Asthma
- Activity 2 (25 minutes): Understanding Asthma
- Home Activity: Easy Air Fresheners

Source:

Activity 1: Introduction to Asthma

1. Explain and discuss the importance of healthy indoor air.
   - Pollutants from factories, cars, buses, and even lawn mowers can get into the outside air, but pollutants can get into the air inside, too. Indoor air is often more polluted than outdoor air. Simple things like cooking and heating and cooling our homes can pollute the air we breathe inside our home.
   - Lack of fresh air and many products in our homes such as cleaning products, personal hygiene and grooming products, and carpets are just a few things that can create a problem.
   - There are many ways to improve the quality of air. Some methods include:
     i. Opening the windows (the cheapest and easiest way to clean the air)
     ii. Avoiding air fresheners (candles, sprays, etc.)
     iii. Increasing air flow (turning on the fans or opening doors)

2. Read the script to introduce students to the concept of asthma:
   - "I'd like you to take in a big breath. Now let the air out. Put your thumbs up if that was easy. Put your thumbs down if it was hard. Most of the time breathing is easy."
   - "Breathing is very important. All the parts of our body need air to work."
   - "By the time we finish this lesson, You'll be able to tell me about something called asthma, which can make breathing hard. You'll learn about things that can make asthma worse for someone who has it. You'll also learn that you cannot catch asthma from another person."
   - "Now, make a fist and press it firmly to your lips. Try and breathe in and out through your mouth now. Was it harder or easier to breathe with your fist there? If it was easier or about the same put your thumbs up. If it was harder, put your thumbs down. It's usually harder to breathe."
   - "People with asthma sometimes have a hard time getting air in and out of their lungs. When this happens they may cough or wheeze,
which is breathing with a noisy sound. Or they may feel short of breath or have pain or a tight feeling in their chest. Why do some people have asthma? People who have asthma are born with it. Sometimes, people have the signs of asthma when they are little babies, but sometimes the signs do not show up until they are much older. Asthma is not something that you can "catch" from someone else. It is not something that can be passed from one person to another like a cold. Many children have asthma."

- "Most of the time, we cannot tell if someone has asthma. People with asthma can run and play just like everyone else. But sometimes they have trouble breathing in and out. Sometimes, it's just a little harder to breathe; sometimes, it's very hard. It depends on how serious their asthma is.

- "Certain things can make asthma worse and make it hard to breathe. Pets that have fur or feathers can make asthma worse. Can you name some furry or feathered pets?

**Activity 2: Understanding Asthma**

1. Pass out the “Furry and Feathered Pet” worksheets. Give the directions: "On this sheet there are lots of animals. Put a circle around the animals that have fur or feathers." You can check the sheets or have partners check sheets. As an alternative you can use the Furry and Feathered Pet sheet as a transparency to stimulate group discussion.
   - "Other things can also make children's asthma get worse. When children with asthma get a cold or the flu, their asthma might get worse."
   - "Do you ever have trouble breathing when you play hard? Playing hard can make it harder to breathe for anyone, but it makes it even harder for someone with asthma. Most of the time, children with asthma can play like everyone else. Sometimes, they need to take a special medicine before they run or play hard."

2. Use the *What Makes Asthma Worse* cards to illustrate your presentation. As time permits, you may discuss other things that can make asthma worse.
   - **Background Note:** Things that make asthma worse include colds and flu; allergies to tree pollen, grass pollen, dust and cockroach allergen; cigarette and other tobacco smoke; cold air; changes in the weather; and laughing or crying hard.
3. Using the other side of the Furry and Feathered Pet sheet have students draw a picture of what you think it is like to have asthma. *Pictures might include:* a person with asthma who has a hard time breathing; a person taking a special medicine before playing hard. Have students draw a picture of some things that can make asthma worse. *Pictures might include:* furry pets, cigarette smoke, colds, playing hard, allergies to grass, trees, and dust.
**Activity 2: Understanding Asthma**

**Furry and Feathered Pet**
Furry and feathered pets can make asthma worse. Put an X on the animals that can make asthma worse.
Activity 2: Understanding Asthma

What Makes Asthma Worse Cards
One side illustrates a problem, the other a solution. Print, cut and fold EACH PAIR to teach students what makes asthma worse.
Activity 2: Understanding Asthma

What Makes Asthma Worse Cards (continued)
One side illustrates a problem, the other a solution. Print, cut and fold EACH PAIR to teach students what makes asthma worse.

Strong smells

Exercise

Having a cold

Gerbil
Home Activity: Easy Air Fresheners

1. Air fresheners are a HUGE cause of indoor air pollution.
2. Replace sprays, candles, and plug-ins with a healthy home-made option!

- Option 1
  - From cardboard or card-stock trace and cut out your favorite shape.
  - Punch a hole in the top of the cut out shape and add a string loop.
  - Put glue on one side and sprinkle potpourri, or other herbs, on it.
  - After it dries, repeat for the second side.

- Option 2
  - Fill half of an empty jar with baking soda and add 10 drops of your favorite essential oil. Mix so that the baking soda absorbs all of the oil.
  - Cover the jar with a piece of cloth and close using a rubber band!

Indoor Air Pollution

- 90% of our lives are spent indoors.
- In the United States, indoor air pollution exceeds levels of outdoor pollution by 2 to 100 times.
- 8 out of 10 households use pesticides inside and outside the home.