

# Learners Take Action to Reduce the Risk of Asthma

## Lesson 1: What is asthma? How asthma affects health

### *Teacher Instructions, Introduction, and Student Worksheets*



#### **Objectives for Lesson 1:**

After completing the lesson students will be able to:

- Explain what asthma is.
- Recognize how asthma affects health.
- Identify asthma triggers.

#### **Teacher Preparation: Materials**

1. Straws for warm-activity.
2. Copies for students of the brochure: *Help Your Child Gain Control Over Asthma*. Download from website [http://www.epa.gov/asthma/pdfs/ll\\_asthma\\_brochure.pdf](http://www.epa.gov/asthma/pdfs/ll_asthma_brochure.pdf)
3. Copies of the Student Worksheets for each student.
4. Copies of the Pre and Post Lesson Learner Asthma Knowledge Evaluation.  
*....only for field test sites*
5. *Copies of the Teacher Evaluation Form to be completed after Lesson 3 has been completed. To be drafted....only for field test sites*

## **Introduction to Asthma**

**Read to Students:** The *United States Centers for Disease Control and Prevention*, reports that over 16 million adults and almost 7 million children in the United States suffer from asthma. Asthma is the most common childhood illness. One out of every 13 school age children has asthma. Asthma is more likely to affect adults and children who live in poverty and people with less than a high school education than people with higher incomes and better education. These lessons have been written to help people with asthma, or who have family members with asthma, learn about what asthma is and what you can do to protect yourself and family members from asthma attacks.

### **What is asthma?**

**Read to Students:** The symptoms of asthma are easy to learn. There are many ways to protect people from asthma to help them lead a full and active life. In the following three lessons we are going to learn that there are many ways that you can control asthma.

1. Learn the **symptoms** of **asthma**.
2. Find out about **asthma triggers** that cause asthma attacks.
3. Find out how to **reduce exposure** to asthma triggers.
4. Visit a doctor and get the right medicine to **control asthma** for your family members that have asthma.
5. Learn how to use **rescue medicine** in case of a sudden asthma attack.

### **Warm-Up Activity**

**Conduct this activity with the class:** *Below is a warm up activity to engage students in thinking about asthma, what it feels like to have asthma, and how it affects a person's ability to breathe.*

**Experience:** What does it feel like to have asthma?

**Activity:** Breathe through a bent straw.

This activity is designed to help students better understand the difficulties that people with asthma have in breathing. Teachers distribute a plastic straw to each student in the class. Ask the students to breathe through the straw. Then ask them to bend the straw in the middle, keep the straw bent and try to breathe through the straw while it is bent.

**Ask:** What happens when you try to breathe through the bent straw? Was it harder to breathe out than it was to breathe in? Explain that difficulty breathing is a symptom of asthma. How does it make you feel?

**Ask:** Do any of you have asthma or do any of you know someone who has asthma? Encourage the students to talk about their experience with asthma; what it's like, how it has affected their life or the life of the person they know.

## **Class Activity**

Provide each student with a copy of the brochure ***Help Your Child Gain Control Over Asthma***. [http://www.epa.gov/asthma/pdfs/ll\\_asthma\\_brochure.pdf](http://www.epa.gov/asthma/pdfs/ll_asthma_brochure.pdf)

### **Read the Brochure:**

**Teacher:** Read pages 1-2 to introduce the brochure to the class.

**Students:** Read pages 3-10 of the brochure. (The rest of the brochure will be used in Lessons 2 and 3. The students might take turns reading the pages of the brochure.)

**Ask:** How does asthma affect health? Name 3 things that you learned about asthma from reading the brochure. (Explain that the information in the brochure is the same for both adults as well as children who have asthma.) What are some of the warning signs that let you know that your child or a family member has asthma?

*The following worksheets will be available in a separate booklet that teachers can use to make copies for students to use in class.*

## **Student Worksheets: Lesson 1**

**Teacher:** Read aloud the vocabulary words at the beginning of each section of Mariana's Story to help the students pronounce the words. Ask the students if they know what the vocabulary words mean. Discuss the meaning of each word.

**Directions to Students:** Read "Mariana's Story" all the way through. In the following worksheets you will be asked to answer questions about the story. You can look back through the story to find the answers.

## **Student Activity 1: Mariana's Story - What is Asthma?**

***Vocabulary:* breathing, wheezing, asthma, symptoms, airways, narrow, asthma attack, exhale, lungs, inhale, chronic, recurring**

Mariana got a telephone call from the nurse at her son's school. Thomas was having trouble **breathing** and a **wheezing** sound was coming from his chest. The nurse asked if he has **asthma**. She noted that asthma can cause **symptoms** of coughing, wheezing, and shortness of breath. Asthma causes the **airways** in the chest to swell and get **narrow** or small making it difficult to breathe. She thought Thomas was having an **asthma attack** because he was having difficulty **exhaling** air from his **lungs** and he coughed when he **inhaled** air into his lungs. Mariana told the nurse that both she and her son have asthma, a **chronic** illness that is **recurring** and happens again and again over a long period of time. She told the nurse that she gets scared because Thomas has asthma attacks often. He gets them at home and at school. He likes to run around outside with his friends, but his parents want him to stay inside because of his asthma attacks. It makes him unhappy.

**What leads to asthma attacks?**

***Vocabulary:* environment, respiration, asthma triggers, Asthma Action Plan, medicine**

Mariana called the doctor. The doctor thought Thomas was having an asthma attack because of conditions in the **environment** where he lives, goes to school, or plays that affect his **respiration**, or ability to breathe. He gave Thomas **medicine** to help him breathe and asked his parents to find out what things in Thomas's environment are causing him to have an asthma attack. The things in the environment that cause asthma attacks are called **asthma triggers**. The doctor helped Mariana learn about asthma triggers and they filled out an **Asthma Action Plan** to keep track of Thomas's asthma triggers, the medicines he needs, and what to do when he has an asthma attack.

## **Student Activity 2: Vocabulary Practice - Defining Words**

**Directions:** Write the definitions (meanings) in your own words, from memory, by looking at the reading about asthma in Mariana's Story, or by using a dictionary.

**asthma:**

**wheezing:**

**asthma attack:**

**chronic:**

**asthma triggers:**

**symptoms:**

## **Student Activity 3: Matching Definitions**

**Directions:** Use the following words to complete the definitions below.

<b>Respiration</b>	<b>Asthma Action Plan</b>	<b>Airways</b>
<b>Environment</b>	<b>Medicine</b>	<b>Narrow</b>
_____	in the chest allow a person to breathe.	
_____	helps a person keep track of their asthma.	
_____	conditions around us - the air, water, soil, and living things where we live, work, go to school, or play.	
_____	the act of breathing – taking air into the lungs and letting air out of the lungs.	
_____	happens to the airways when a person has an asthma attack.	
_____	makes a person feel better and helps them get well when they are sick.	

## **Student Activity 4: Reading about Asthma**

**Directions:** Read the fact sheet below to learn five important things you should know about asthma. This information will help you answer the questions in Activity 5: Reading Comprehension. You can look back through the Fact sheet to find the answers.

### **Five Important Things You Should Know About Asthma**

**1. You can control your asthma**

- You don't need to miss school, sports, or other activities.

**2. Asthma is a disease that makes the airways in your lungs inflamed and swollen**

- During an asthma flare-up (attack), your airways are swollen and sensitive.
- You can control the swelling with medicine, and by staying away from things that bother your airways.

**3. Things that bother your airways are called "triggers"**

- "Triggers" cause asthma flare-ups.
- Smoke, pollen, dust, cold air, toxic chemicals, pets and pests, and exercise can be triggers.
- Every person with asthma has different triggers.
- Learn how to avoid your triggers and prevent flare-ups.
- Medicine taken as directed by your doctor can help prevent your asthma from flaring up.

**4. Work with your doctor to manage your asthma**

- Know what to do every day to avoid flare-ups.
- Know what to do right away if you have a flare-up.

**5. If someone you care for or live with has asthma, don't smoke**

- Smoke is a common trigger and can cause asthma to flare up.
- If you or someone you care for smokes, get help to quit smoking.
- You can get free help at 1-800-784-8669.

## **Student Activity 5: Reading Comprehension**

**Ask:** Are there any words in what you just read that are unfamiliar? Let's talk about them together. Example: What does "inflamed" mean? swollen flare-up pollen

**Directions:** Circle the best answer to each of the following questions after reading about asthma.

### **1. What is asthma?**

- a. A noise a person makes while breathing.
- b. The way a person breathes when they are scared.
- c. An illness that causes the airways to swell and get tight.
- d. Something that a person gets from running too much.

### **2. What can trigger an asthma attack?**

- a. Being allergic to your cat.
- b. Being near someone who is smoking.
- c. Being inside a room that is dusty.
- d. All of the above.

### **3. How is asthma treated?**

- a. By eating peanuts.
- b. By following the advice in an Asthma Action Plan that your doctor gives you.
- c. By staying inside when the weather is bad.
- d. By not running too much.

### **4. What can you do about asthma?**

- a. Drink herbal tea.
- b. Buy cough syrup from a store.
- c. See a doctor to get the medicine you need.
- d. Take a warm bath.

### **5. Which one of the statements about asthma below is FALSE (not true)?**

- a. You can take control of your asthma.
- b. Asthma makes the airways inflamed and swollen.
- c. Smoking will not be a problem if you have asthma.
- d. Things that cause asthma are called "triggers."
- e. A doctor can help you manage your asthma.

**6. List three symptoms that appear when a person has asthma.**

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

**Student Activity 6: Writing about Asthma**

**Directions:** Choose one of the questions below and write an answer to it. You can write from your personal experience or something you learned about asthma in class today — or both. Use the worksheet, but if you need more space to write, use a separate piece of paper.

**Question 1: If you had asthma how would it affect your life?**

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**Question 2: If your child had asthma, how would it affect your child and your family?**

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**Student Take-home Activity: What is it like to have asthma?**

**Directions:** Find a friend or family member who has asthma. Ask them the questions on the worksheet below and write down their answers. If the person does not want to answer a question, just skip to the next question. **Bring your worksheet with you to the next class and prepare to report what you learned to the class.**



*Worksheet Questions:*

**1. What does it feel like when you have an asthma attack?**

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**2. Are there things that make your asthma worse?**

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**3. Are there things that help with your asthma? Things you can do so you have asthma attacks less often?**

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**4. Do you take medicine for your asthma?**

Yes            No

**5. How does having asthma affect your life?**

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**Report Back to Class: What is it like to have asthma?**

**Directions:** Ask the students to share with the other students what they learned about what it is like to have asthma.