

# IDEAS FOR THE CLASSROOM



## **SAFETY /SECURITY CONSIDERATIONS**

- Know:
  - Which students have asthma
  - Warning signs of asthma
    - Cough
    - Allergy symptoms: watery eyes, runny nose
    - Trouble speaking
    - Tight chest
  - Where the medication is (WI state law allows students to carry their own inhalers on their person)
- Know proper procedures and responsibilities in the event of an asthma attack.
- Know asthma triggers and try to minimize their presence in the classroom:
  - Excessive dust
  - Strong odors
  - Furry or feathered pets
  - Abrupt changes in temperature
  - Pollens and air pollution
  - Colds and flu
- Considerations for gym:
  - Allow for pre-medication
  - Consider outdoor air temperature and pollution levels
  - Always warm-up slowly
  - Allow for alternate activities
- Be aware of how often students are using inhalers. If they are used more than twice per week for symptoms (this doesn't include pre-medication for gym), the asthma is not under control and a conversation with the parents might be needed.
- Students having an asthma flare-up should not be sent to the office for medicine alone!

## **SOCIALIZATION IN CLASSROOM**

- Provide opportunities to discuss asthma to increase understanding and clarify misunderstandings.
- Incorporate asthma education in the curriculum, using a resources found in this book.
- Offer alternative activities for students that may not be able to participate in all active activities.
- Incorporate parents and nurse whenever possible to add insight into asthma.

# **STRAW EXERCISE**

\*Students with asthma may need to be observed during this exercise.

What you'll need:

Small, coffee stirrers/straws

Steps:

Raise your heart rate – do jumping jacks or walk briskly around the room for 1 minute.

Put the coffee straw in your mouth and plug your nose

Breath in and out through the straw

This should be difficult! This is what it feels like to have an asthma attack!

Imagine what it would feel like if you couldn't unplug your nose or remove the straw!

# ASTHMA AWARENESS CURRICULA

Based on NHLBI curriculum

## PRESCHOOL THROUGH 1<sup>ST</sup> GRADE

### Objectives:

- Identify asthma triggers
- Learn that asthma is not something you can catch like a cold

### Preparation:

- “A is for Asthma” video
- AAAAI coloring sheets
- Felt board with triggers
- Blank paper for drawing triggers

### Class:

- Introduce yourself
- We’re here to talk about asthma (Have children say “asthma”)
- Asthma is something that makes breathing hard (Where are your lungs? How does air get to your lungs?)
- Fist exercise: have all students hold an open fist to their mouth; inhale and exhale. Having asthma is like breathing through a closed fist – have students inhale/exhale through closed fist.

Or

Have all students inhale a large breath and exhale completely through the open fist. Everyone should be able to exhale the whole breath quickly. Then take another large inhalation and exhale completely through a closed fist. It should take longer to exhale the complete breath.

- Show “A is for Asthma” video
- Felt board trigger presentation  
Have students color or cut-out pictures of asthma triggers. An alternative would be to have pictures of triggers pre-made. Have students categorize all the pictures on a display board, or taped to a blackboard – example categories: animals and strong smells.
- Create poster – draw triggers

## 2<sup>ND</sup> THROUGH 4<sup>TH</sup> GRADE

### Objectives:

- Describe asthma as something that makes breathing difficult for children with asthma.
- Explain that asthma can be controlled so that children can be active.
- Describe asthma as something that can not be passed from one person to another like a cold.
- Identify two things that can make asthma worse, such as cigarette smoke, furry pets...

### Preparation:

Copies of “Furry and Feathered Pets”

Copies of “Hidden Pictures”

Asthma in the Air video

### Class:

- Introduce yourself
- We’re here to talk about asthma (write “asthma” on the board, have everyone say “asthma”, ask how many people know someone who has asthma)
- People who have asthma are born with it; its not something you can catch from someone else like a cold
- What is asthma – use picture of lungs and describe three parts to asthma
- Fist exercise: have all students hold an open fist to their mouth; inhale and exhale. Having asthma is like breathing through a closed fist – have students inhale/exhale through closed fist (they can also plug their noses for a more realistic representation.)

Or

Have all students inhale a large breath and exhale completely through the open fist. Everyone should be able to exhale the whole breath quickly. Then take another large inhalation and exhale completely through a closed fist. It should take longer to exhale the complete breath.

- People with asthma sometimes cough a lot, or have noisy breathing because their airways look like the picture.
- In order to keep the airways open, people with asthma take medicines (show an inhaler/spacer)
- But, they also need to stay away from things that make asthma worse like furry or feathered pets. What kinds of animals have fur or feathers?
- Other things can make asthma worse like dust, or strong smells like perfume, or having a cold.
- The number one trigger for asthma is cigarette smoke
- Show “Asthma in the Air” video
- Did you learn about any other asthma triggers from the video? List.
- Hand outs – 2 activity sheets and poster contest rules
- Describe poster contest

## 5<sup>TH</sup> THROUGH 6<sup>TH</sup> GRADE

### Objectives:

- Define asthma as a condition that causes breathing difficulty
- Explain that asthma can be controlled to allow people with asthma to be active and healthy
- Describe asthma as a condition that affects the airways in the lungs
- Explain that asthma can not be caught like a cold or infection
- Describe airways in lungs as part of the respiratory system
- Describe 4 signs and symptoms of asthma
- List 4 things that can make asthma worse

### Preparation:

Copies of Respiratory system and asthma

Copies of hidden picture

Copies of asthma maze

Asthma in the Air video

### Class

- Introduce yourself
- We're here to talk about asthma (write "asthma" on the board, ask how many people know someone who has asthma)
- Respiratory System – use overhead to trace the pathway of air into the lungs
- What is asthma – use picture of lungs and describe three parts to asthma. First ask what the differences between the two airways are.
- Fist exercise: have all students hold an open fist to their mouth; inhale and exhale. Having asthma is like breathing through a closed fist – have students inhale/exhale through closed fist (they can also plug their noses for a more realistic representation.)

Or

Have all students inhale a large breath and exhale completely through the open fist. Everyone should be able to exhale the whole breath quickly. Then take another large inhalation and exhale completely through a closed fist. It should take longer to exhale the complete breath.

Or

Or use a straw. The straw can be pinched to demonstrate bronchospasm. How could you breathe through a straw that was filled with liquid milkshake?

- How do you think people get asthma?  
Scientists don't know exactly, but they do know most people are born with asthma. Asthma is not passed from person to person like a cold.
- What do you think someone who is having asthma might sound like or look like?  
Coughing, can't catch breath, hunched over.

- People with asthma take medicines in order to keep their airways open (show or talk about inhaler/spacer)
- People with asthma have sensitive airways. Their airways can be very sensitive to ordinary things in the air that usually don't bother people without asthma. When people with asthma are around these things, their asthma gets worse. Some of these things are: dust, furry or feathered animals, strong smells, mold....
- Show "Asthma in the Air" video  
Did the video list triggers that I forgot to mention?  
Remember: cigarette smoke is the biggest asthma trigger

# ACTIVITIES FOUND ON THE INTERNET

## 1. AIR JUNK: SPECKS, FLECKS, AND PARTICLES IN THE AIR

<http://www.bioeducation.org/coolscience/airjunk/index.html>

**COLLECT SAMPLES FROM DIFFERENT LOCATIONS**

**VIEW SAMPLE UNDER A MICROSCOPE**

**EXAMPLE PAGES:**

### Here's All You Do:

1. Print out the pattern page.
2. Cut out six collectors, using the pattern from the page. Apply sticky stuff (sticky labels and transparent tape work well)
3. Fold each collector and cut out the inside window. Then flatten the collector.
4. Write the location and starting date and time on each collector.
5. Hang the collectors wherever you are curious about the air. Or use these suggested locations:
  - Above your bed, near where you breathe.
  - On the inside or outside of a window.
  - Near a heating vent.
  - Above the cooking stove.
  - On a wall near the floor or ceiling.
  - On your main entry door.
  - Under a tree.
6. Cover the window on the collector with the sticky label or tape. Put the sticky side up or out.
7. Wait a couple of days and take the collectors down. Write the ending time and date on each. Don't touch the sticky stuff!



<p>●</p> <p><b>Location:</b></p> <p><b>Starting date:</b></p> <p><b>Time:</b></p>	<p><b>Cut out window</b></p>	<p><b>Ending date:</b></p> <p><b>Time:</b></p>
<p>●</p> <p><b>Location:</b></p> <p><b>Starting date:</b></p> <p><b>Time:</b></p>	<p><b>Cut out window</b></p>	<p><b>Ending date:</b></p> <p><b>Time:</b></p>
<p>●</p> <p><b>Location:</b></p> <p><b>Starting date:</b></p> <p><b>Time:</b></p>	<p><b>Cut out window</b></p>	<p><b>Ending date:</b></p> <p><b>Time:</b></p>

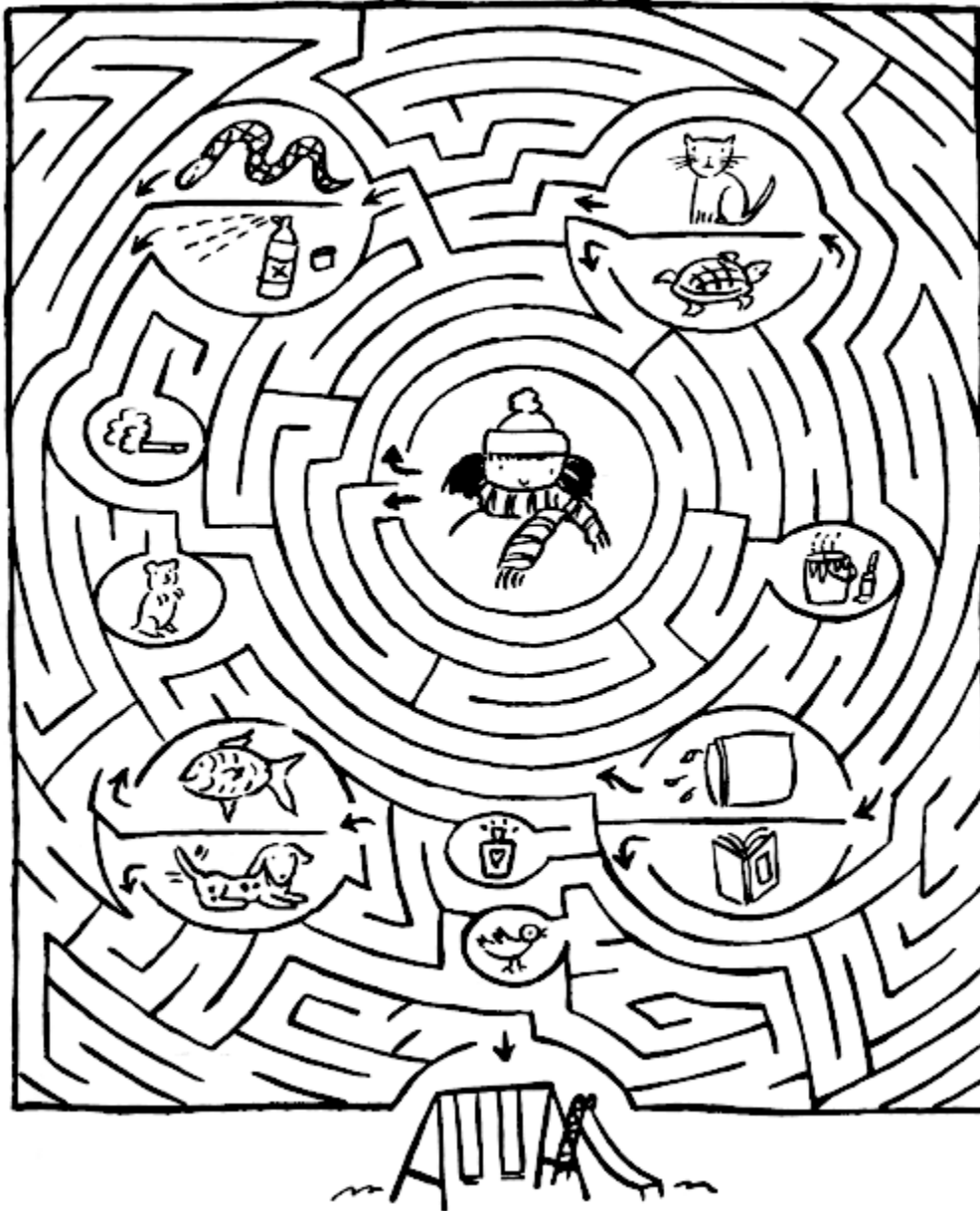
**2. NATIONAL HEART LUNG BLOOD INSTITUTE CURRICULUM**

<http://www.nhlbi.nih.gov/health/public/lung/index.htm>

**CHOOSE 'ASTHMA AWARENESS CURRICULUM FOR ELEMENTARY CLASSROOM  
EACH MODULE CONTAINS WORKSHEETS AND HANDOUTS - EXAMPLE:**

Asthma Maze

Help Katie get to the playground ready to have fun. Don't go near the things that could make her asthma worse. Treat her like a friend.



**3.**

**AMERICAN ACADEMY OF ALLERGY ASTHMA AND IMMUNOLOGY**

<http://www.aaaai.org/patients/just4kids/default.stm>

**CHOOSE "DR. AL COLORING BOOK PAGES" AMONG MANY OTHER ACTIVITIES**

**EXAMPLE:**



*Character by Alex Thomas - 1997 Winner - "How I Manage My Asthma" Poster Contest*

**Duel Action (a.k.a. Double Whammy)** fights asthma with two kinds of **inhalers**.

The one on the left contains a short-acting medicine that should be used when you're having an asthma attack. . The one in Duel Action's right hand is a long-acting, asthma medicine. If your doctor prescribes this kind, you should use it on a regular basis -- even when you're feeling good -- so you won't get as many asthma symptoms.

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# WEBSITES FOR STUDENTS

[www.brainpop.com](http://www.brainpop.com)



Brain Pop is a great site for students. An interactive asthma movie can be played with a quiz that follows. Students earn points by completing activities. Users must log-in.

[http://www.kadmed.com/asthma\\_peak.html](http://www.kadmed.com/asthma_peak.html)

[http://www.kadmed.com/asthma\\_myst.html](http://www.kadmed.com/asthma_myst.html)

Tim and Moby tour the mysteries of life, including Asthma Info, News, and Links. Appropriate for students grade 3 and above. The second address above takes users to a session about peak flow meters.



[www.asthmabusters.org](http://www.asthmabusters.org)

Asthma Busters is an American Lung Association website for kids 7-14 with Wheeze and Cheese Pizza Game and Mucus Magazine are only two of the fun pages to see. must register.



asthma.

Users

<http://www.bioeducation.org?coolscience/airjunk/index.html>

RUN FOR IT!



Air Junk: Specks, Flecks, and Particles in the Air details how elementary students can build a particle collector and then get a close-up view of the kinds of air junk that cause allergies and asthma.

[www.bam.gov](http://www.bam.gov)



BAM! Body and Mind is a kid's site from the Centers for Disease Control that focuses on health and fitness. Asthma information can be found after clicking on "disease detectives", then on "Stephen Redd".

<http://hsc.virginia.edu/cmc/tutorials/asthma/asthma1.html>

This link takes the user to an asthma tutorial from the University of Virginia Children's Medical Center. Great diagrams of the respiratory system are included. Elementary students can see, hear, and compare breathing during and after an asthma attack.

# WEBSITES FOR TEACHERS

[www.nhlbi.nih.gov](http://www.nhlbi.nih.gov)

This is the website for the National Heart, Lung, Blood Institute of the National Institutes of Health. Lessons for all grade levels and worksheets are downloadable.

[www.aaaai.org](http://www.aaaai.org)

American Academy of Allergy, Asthma and Immunology is a good source for background asthma information.

Asthma coloring pages, word searches, and mazes can be downloaded. (Click on “patients and consumers” then “just for kids”.)

[www.cdc.gov/healthyyouth/healthtopics/asthma](http://www.cdc.gov/healthyyouth/healthtopics/asthma)

CDC School Resource on establishing asthma-friendly school policy and creating asthma healthy school environments.

This is sited in the notes from our slide presentation

[www.brainpop.com](http://www.brainpop.com)

Movies on other subjects might be useful in non-asthma curricula.

See the special teachers pages!

[http://pbskids.org/arthur/grownups/health\\_tips/asthma.html](http://pbskids.org/arthur/grownups/health_tips/asthma.html)

PBS Kids-downloadable classroom activities

Grown-ups section of pbs.org

<http://school.discovery.com/teachingtools/teachingtools.html>

Puzzlemaker

Lesson Planner

Quiz Center

Worksheet Generator

<http://www.nationalgeographic.com/kids/activities/index.html>

Bookmark Factory

Print and Go Coloring Book

# COMMUNITY RESOURCES FOR TEACHERS

## Awesome Asthma School Days

This is a 4-hour field trip to Children's Health Education Center for students in grades 3-6 that have asthma.

Fight Asthma Milwaukee Allies currently covers both admission fees and busing. Free Field Trip!

Call: 414-390-2166

## Alvi's Awesome Lung Adventure

Respiratory System curriculum and exhibit from the American Lung Association of Wisconsin can be borrowed from the American Lung Association of Wisconsin. This is a week-long curriculum that the teacher uses in the classroom.

Call: 1-262-703-4844

## Pig Lungs

Students love this demonstration!

A set of 2, real pig lungs can be borrowed from the American Lung Association of Wisconsin. One lung is normal and healthy, and the other shows what 20 years of smoking a pack of cigarettes a day does to your lungs. A bellows fills the lungs to show what breathing looks like.

Call: 1-800-LUNG-USA

## Asthma in the Air Video

This video features child-actors that teach how the environment can affect health, especially those that have asthma.

Call: 1-608-266-6790 (front desk)

or fax a request to: 1-608-266-6293

Or mail to:

Air Quality Education

Wisconsin DNR – CE/6

101 South Webster Street

P.O. Box 7921

Madison, WI 53707-7921

## "A" is for Asthma Video

This video features several Sesame Street characters that teach pre-school through first graders what asthma is, how to recognize warning signs, and how to help a friend that is having a flare-up. The video can be purchased or borrowed from the American Lung Association of Wisconsin.

Call: 1-800-LUNG-USA