

BREATHE EASY

Students will learn about smoking's effect on the lungs and the heart.



Materials:

large, clear container
coffee scoop
coffee grounds
long-handled spoon
10 self-sticking name tags
20-foot rope
tape



For each student:

copy of the "Breathe Easy"
recording sheet
2 plastic coffee stirrers
plastic straw
small balloon



SETUP:

Fill the clear container with water. Label one name tag "lungs" and another "heart." Then label each of the remaining name tags with a different poisonous chemical found in cigarette smoke. (See the list provided.)

ACTIVITY ONE

1. As students enter the gym, direct their attention to the container of water. Invite each child to put a scoop of coffee grounds in the water. Stir.
2. Guide students to describe the water (*dirty, gross, icky, etc.*). Lead students to compare the water before and after the coffee grounds were added. Then tell students that the clear water represented healthy lungs, while the coffee grounds represent the harmful substances that enter a smoker's lungs with every cigarette he or she smokes. Then ask, "Would you like the inside of your lungs to look like this?"
3. Have each student complete Part 1 of the "Breathe Easy" recording sheet.

ACTIVITY TWO

1. Give each child a coffee stirrer, a straw, and a small balloon.
2. Instruct each student to slip the balloon onto one end of the straw and then use his fingers to seal the balloon against the straw.
3. At your signal, have students blow into the straw and observe how inflated the balloon becomes.
4. Have students replace the straw with the stirrer and repeat.
5. Ask students which tool made it easier to inflate the balloon (*the straw*). Share with students that the straw represents the airways in the lungs of a nonsmoker, while the coffee stirrer represents the airways of a smoker. Smoking damages the air sacs in the lungs, making it harder to breathe.
6. Have each student complete Part 2 of the "Breathe Easy" recording sheet. Set aside a coffee stirrer for each child to tape to the bottom of his paper for the "Take-Home Task."

ACTIVITY THREE

1. Invite one student to wear the name tag labeled “lungs” and another to wear the name tag labeled “heart.” Explain the functions of the heart and lungs using the information in the sidebar.
2. Direct the two students to stand next to the rope, facing the same direction. Have them pick up the rope and give it a tug. Ask how it felt. (*easy*)
3. Explain that when the heart and lungs work together, breathing is a cinch. Then tell students that nicotine and other chemicals in cigarette smoke make these organs work harder.
4. Invite different students to wear name tags labeled with cigarette chemicals (see the list below), naming other products each chemical is used in, where applicable. As each chemical is described, that student goes to the opposite end of the rope and challenges the heart and lung pair to tug. By the time all the students wearing chemical name tags are at the rope, the work will be much harder for the heart and lungs, much like what happens when people smoke.
5. Have each student complete Part 3 of the “Breathe Easy” recording sheet.
6. Wrap up the activities by telling students if they are ever tempted to smoke, to consider these activities and ask themselves, “Do I really want to gunk up my lungs and make my heart work extra-hard? I’d rather breathe easy!”

Point out to students that **electronic cigarettes**—or e-cigarettes—also deliver nicotine, which is addictive. Just because e-cigarettes are high-tech doesn’t mean they’re okay.

HEART

Your heart is made of a unique muscle that isn’t found anywhere else in your body. It is responsible for pumping blood all over your body. The blood carries oxygen and other important nutrients, proteins, chemicals, and wastes.

LUNGS

Your lungs are also very important. Lungs absorb oxygen from the air that you breathe in, which is important for the body to function properly. When you breathe out, the lungs also get rid of carbon dioxide, which is a gas that your body cannot use.

WHAT CHEMICALS ARE FOUND IN CIGARETTE SMOKE?

- **Nicotine** is a highly addictive substance found in tobacco.
- **1, 3-Butadiene** is a chemical used to manufacture rubber to make tires for cars and trucks.
- **Arsenic** is used to preserve wood and is used in pesticides.
- **Benzene** is found in gasoline.
- **Cadmium** is a metal used to make batteries.
- **Chromium VI** is used to make metals, paint, and dyes.
- **Formaldehyde** is a chemical used to preserve human and animal remains. It can cause cancer.
- **Tar** is a bunch of solid, inhaled chemicals.

Name _____

Tobacco/Smoking

BREATHE EASY



How does smoking affect the heart and lungs?

PART 1

Draw a picture to show the container of water before and after the coffee grounds were added.

Before	After

What did you learn about smoking from this demonstration?

PART 2

Which tool represented a nonsmoker? (Circle.)

straw coffee stirrer

Which tool represented a smoker? (Circle.)

straw coffee stirrer

What did you learn about smoking from this activity?

PART 3

Draw a picture to show how the tug of war looked at the end of the activity.

How do the chemicals in cigarette smoke affect the heart and lungs?

TAKE-HOME TASK

Tape the coffee stirrer to your paper. When you get home, challenge an adult to breathe through the stirrer. Then explain what you learned about how smoking damages the heart and lungs. Write the important message you want to share in the speech bubble.

