Smoke-Free Outdoor Spaces

Developed by: Heather Gibling and Chelsea McPherson **Age Range:** Grades 7-8
Total time: 60 mins

Materials:

Numbers Game question cards (12)
Body diagram (6 sheets)
Environmental Effects cards (8)
Brainstorming Ideas papers
Paper cups (10)
Black light
Marker
Numbers Game answer cards (14)
Fake cigarette butts (8)
Deforestation and Cigarettes video
Tape/Sticky tack
Tonic Water
½ Tablespoon measuring cup

Before Getting Started:

Place the numbers from the Numbers Matching Game around the classroom. Use tape (or sticky tack) and try to spread them evenly around the room, leaving one spot (like the chalkboard) empty to put the matching questions and answers after they have been asked. There should be 14 numbers and 12 questions (the extra numbers are so the students still have to guess for the last question).

Prepare the cups for the Environmental Effects demonstration. Take out 10 cups and label them as follows: A1, A2, B1, B2, B3, B4, B5, B6, C, Water. Pour ½ tablespoon of water into each of the following cups: A2, B2-B6, Water. Now pour ½ tablespoon of tonic water into each of the following cups: A1, B1, C.

Prepare the projector and have the Deforestation and Cigarettes video open and ready to go.

Introduction (15 min):

- (*Introduce yourself*)
- Today we're here to talk to you guys about the idea of smoke-free outdoor spaces. We're not here to lecture you on how smoking is bad for you—you know that already. Everybody does. Instead, we are going to focus on how smoking is harmful to non-smokers as well as for the environment. We're also going to talk a bit about how the tobacco industry is deceptive and manipulative, and targets their harmful products directly to youth. We hope that you guys will be inspired and can come up with ways to outsmart the tobacco industry and take action in your community.
- To start, we are going to do a numbers matching game. We've put a bunch of numbers all over the classroom, ranging from 6 to 4.5 trillion! Take a quick glance around to get an idea of what numbers there are. We are going to ask some questions about smoking statistics, and what you guys will do is walk over to the number that you think matches the question.

Have one LTS volunteer read out the questions and answers while the other sticks the question on the board. Repeat the question as students are deciding on a number. After the correct answer is announced, the volunteer can grab the number off the wall and stick it next to the question on the central 'answer board'. The facts can be reiterated to really drive the point home (e.g. "24 million dollars, every single day! That's a lot of money!")

- **Question 1:** What percentage of smokers started smoking before they turned 18? (**87%**)
- **Question 2:** What percentage of youth-rated movies (movies rated G, PG, or 14A) contain smoking? (**33%**)
- **Question 3:** 70% of smokers say they want to quit. What percentage are actually able to quit each year? (**6%**)
- **Question 4:** How many cigarette butts are littered around the world each year? (**4.5 trillion**)
- **Question 5:** How many years does it take for a littered cigarette butt to break down? (**15**)
- **Question 6:** How many toxic chemicals are found in littered cigarette butts? (**165**)
- **Question 7:** How many people die in the US every year from secondhand smoke? (**42,000**)
- **Question 8:** How many infants die in the US every year because their mothers' smoked during pregnancy or because they were exposed to secondhand smoke as babies? (**1,015**)
- **Question 9:** How many chemicals are found in secondhand smoke? (**7,000**)
- **Question 10:** How many of these 7000 chemicals in secondhand smoke are known to cause cancer? (**70**)
- **Question 11:** How much money does the tobacco industry spend advertising their products in the US every day? **($24 million**)
- **Question 12:** For how many years did the tobacco industry know that smoking was dangerous to people's health but lied about it to their customers? (**50**)

- We have one last question to ask you guys to finish our introduction about the impact of the tobacco industry. It's multiple choice, so I'll read all of the answers first and then ask who thinks which option is correct.
- Which of the following quotes was actually said by a tobacco company executive?
- **A:** "Today's teenager is tomorrow's potential regular customer."
- **B:** "To ensure increased and longer-term growth for [our brand], the brand must increase its share among the 14-24 age group which … represent tomorrow's cigarette business."
- **C:** "If they're really, really not selling to children, we're all going to be out of business."
- So who thinks option A is an actual quote from a tobacco company executive? (*Read out option A again.*) What about option B? (*Read B again.*) And what about C? (*Read C again.*)
- Guess what—you guys are ALL correct. All three of these quotes were said by tobacco company executives. The tobacco industry realizes that as their adult customers get sick and are killed from using their products, they need to replace their customers with younger people, and that they will make more money if they get teenagers smoking at an early age. They attract youth to try their products by using cool, sleek packaging and bright colors, and by making chewing tobacco in candy flavors.
- But we think you guys are smarter than the tobacco industry and can make your own decisions about smoking and can help improve and enforce your community's smoking policies in outdoor spaces!

Health Effects of Second-Hand Smoke (5-10 min):
Tape the body diagram up on the board/wall, and put a small bit of tape/tack on each of the fake cigarette butts. (*Keep the numbers and questions up for the students to refer to throughout the module.*)

- Next we are going to do an activity we like to call 'Pin the Butt on the Organ'. We have some fake cigarette butts here, and a diagram of the human body on the board. We would like to get some volunteers to come up and stick a cigarette butt to an organ or part of the body that they think is affected by secondhand smoke. So this means the smoke that comes out of the end of a burning cigarette, or that's breathed out by a smoker and can be harmful to someone who doesn't even smoke.

One by one, have volunteers come up to the front, take a fake cigarette butt, and stick it on a body part that they think is affected by secondhand smoke. There should be 8 butts for each of the 8 parts affected. Go through the correct answers after all of the butts have been placed, moving incorrectly placed butts to correct spots if necessary.

- **Lungs**: Can cause lung cancer, infections in the respiratory system, chronic coughing, and asthma.
- **Heart**: Can cause heart attacks and other forms of heart disease.
- **Brain**: Can cause learning and behavioral issues in children, and strokes in adults, which is a serious condition where not enough blood reaches the brain to function properly.
- **Ears**: Can cause ear infections, especially in children.
- **Nose**: Can cause nasal infections and cancer of the nasal sinuses.
- **Throat**: Can cause cancers of the throat and voice box.
- **Eyes**: Can cause cataracts, which is when the surface of the eye gets cloudy and affects the ability to see.
- **Womb**: Babies developing in the womb exposed to second-hand smoke are at risk of being born prematurely and having a low weight at birth, which can put them at risk of health problems. They are also likely to develop asthma during childhood.

Environmental Effects of the Tobacco Industry (10-15 min):
- A lot of people don't realize that the tobacco industry has some pretty harmful effects on the environment. We've already learned that 4.5 trillion cigarette butts are littered all over the world each year! Every single person on the planet would have to pick up 642 of them to completely clean the earth of littered cigarette butts.
- It's important not to litter cigarette butts because it takes up to 15 years for a butt to break down. While the paper and the tobacco are biodegradable, the filter at the end is not because it's made of plastic. After 15 years the plastic will have broken down into very tiny pieces, but they never fully degrade like organic materials do.
- Also, littered cigarette butts release the same harmful toxins that make smokers sick into our environment. We're going to do an activity now to demonstrate this.

Ask for 10 volunteers (ideally ones who didn't volunteer for Pin the Butt on the Organ) to come to the front and give each a cup. Students with cups C and 'Water' can stand off to the side for now. Have the students with cups A1 and A2 stand next to each other, and students with cups B1-B6 stand in order (left to right). Pass out the marked Environmental Effects cards to the appropriate students to read during their turns (i.e., the student with cup B3 is given the card marked 'B3').

- A1, B1, and C all have tonic water in them, while the rest of the cups have regular water. Tonic water is a bitter drink you can buy at the grocery store. It has an ingredient called quinine (kwi-neen) that glows under a black light. We're going to pretend that this tonic water is the toxic chemicals found in cigarette butts, and we're going to see what happens as the toxins move through the food chain. The students with the A chain of cups will represent one scenario, and the students with the B chain of cups with represent another scenario, and we will compare the results of the two scenarios with cup C and the water cup.
- So let's start with chain A first. Cup A1, go ahead and read your card, and then A2 read yours next. (*Make sure that the student with cup A1 pours their contents into cup A2 after A2 has read their card.*)
- All right, now for chain B. Cup B1, you're up first—go ahead and read your card, and the rest of you follow. (*Again, make sure B1 pours their contents into B2 after B2 finishes reading, and B2 pours their contents into B3 after B3 finishes reading, etc.*)
- Thanks guys. So knowing that tonic water glows under a black light, and regular water doesn't, let's see for ourselves how this looks.

Plug in the black light and turn it on. Close window blinds if possible and then turn off the lights. Have the students with cups C and 'Water' come up and hold their cups under the black light, angled so that the rest of the class can see.

- Cup C, you represent the toxins found in a cigarette butt, just like cup A1 and B1. You're doing an awful lot of glowing, so there must be a lot of toxins in there!
- Now let's get cup A2 under the black light. It looks like it's glowing almost as much as cup C! The poor dog directly ingested all those cigarette toxins and will likely get sick.
- Do you think cup B6 will glow as much as A2 or C? Why or why not? Let's check it out. B6 is definitely glowing, but it doesn't look like it's glowing as much as the others, because the tonic water from the first cup was diluted by more regular water. So even though the bird didn't directly ingest the cigarette butt, the toxins leached into the water and worked up through the food chain and eventually into the bird, harming the insects and small fish living in the water and possibly affecting the health of the bird as well. This shows that even littered cigarette butts can affect the health of animals and humans, and that we should be concerned about how many we see on the ground in our communities.
- Littered cigarette butts are also dangerous because they can cause forest fires that destroy animal habitats and people's homes.
- Also, the actual process of growing tobacco and making cigarettes is really damaging to the environment. We're going to watch a short video to learn more about this.

Show the Deforestation and Cigarettes video.

Smoke-Free Outdoor Spaces Legislation (5-10 min):

- In 2006, it became illegal for people to smoke in public indoor spaces in Ontario. Since then, people have not been allowed to smoke inside restaurants, malls, stores, movie theatres, schools and universities, bowling alleys, hockey arenas, or other indoor places. It is also illegal to smoke in a car if there is a passenger younger than 16 in it.
- Initially, business owners were worried that they would lose customers because of the ban, but in most cases, restaurants actually had more customers after the ban! This is pretty good evidence that lots of people want to be able to enjoy smoke-free spaces in their communities.
- Earlier this month, on November 7th, the provincial government announced that a new law was passed making certain outdoor spaces smoke free as well! Starting on New Year's Day, people will no longer be able to smoke on restaurant patios or at playgrounds, soccer and baseball fields, tennis courts, ice rinks, public swimming pools and splash pads. This is great news and gives people in communities all across Ontario the ability to enjoy outdoor activities without having to worry about the harmful effects of secondhand smoke.
- Let's talk about possible pros and cons for having smoke-free outdoor spaces in your community.

Get students to suggest possible pros and cons. Encourage them to think about both health and environmental consequences.

- **Pros**: smoke-free air in family-friendly places, reduce cigarette butt litter in places like playgrounds and parks where infants and pets might try to eat them, reduces littered cigarette butts from leaching toxins into the environment, encourages smokers to quit by limiting the places they are allowed to smoke, prevents overexposure of smoking as a normal habit to children, protects people who work outdoors from being exposed to secondhand smoke
- **Cons**: might be tricky to enforce the new laws (but other cities have had success)
- Are there any other outdoor places you think should be designated smoke free? What about bus shelters, parks and walking trails, busy downtown sidewalks, or outdoor community events like music festivals? This new law is a great first step towards making positive changes in our communities, but there might still be ways that we can improve it.

Brainstorming Activity (15 min):

Give every student a small piece of paper, and make sure everyone has a pen or pencil. If pressed for time, you can do only 3 or 4 rounds of this activity.

- The last thing we are going to do with you guys today is a brainstorming activity. You have a project that you will be doing with your teacher to promote smoke-free outdoor spaces in your community and you might have started planning your project already. What we would like you guys to do now is to think of some ideas to really make your project stand out.
- **Sacred Heart Catholic School**: I believe you guys are making a commercial. Maybe you can think of some scenes to act out, or what you'd like to film.
- **Glenbrook Elementary School**: I believe you guys are making signs to go outside of your school. Maybe you can think of some catchy slogans, or images you'd like to put on them.
- We'll give everyone a couple minutes to think of something and write it down on their paper.

- (After everyone has written down an idea) Now what we're going to get you to do in a minute when we announce "Round 1" is stand up and trade your paper with someone else. Read over the idea that you just received, and on the back of the paper next to 'Round 1', rate the idea based on how much you like it. If you think it's a really great idea for your class project, give it a 5. If you think it's an ok idea but maybe not the best fit for your project, give it a 1. Circle whichever number you think is appropriate. Then, when we announce "Round 2", trade your paper with someone else and do the same thing. We're going to do this for a total of five rounds. Ready? Round 1! (Give students a couple of minutes to complete each round.)
- Ok, now tally up the scores on the paper you're currently holding. It should be a number between 5 and 25. Who has an idea with a score of 25? A score of 24? …

Have students read out ideas that have a score of 25, then 24, and so on until the top 5 or so ideas have been shared. Collect all of the ideas and hand them to the teacher. Thank the class for participating, wish them luck on their project, and take down the questions, numbers, and body diagram off of the board.

Environmental Effects Cards

A1: A cigarette butt is tossed on the grass in a park.
A2: A family walks their dog in the park. The dog sniffs the grass and eats the cigarette butt, mistaking it for food. Pour the contents of cup A1 into cup A2.

B1: A cigarette butt is tossed on the ground next to a river.
B2: The cigarette butt rolls into the river. All of the chemicals start to dissolve in the water. Pour the contents of cup B1 into cup B2.
B3: Algae growing on the rocks in the river take in some of the toxins. Pour the contents of cup B2 into cup B3.
B4: Water insects swim to the rocks and eat the algae. Pour the contents of cup B3 into cup B4.
B5: A fish swims along and eats some of the insects. Pour the contents of cup B4 into cup B5.
B6: A large bird spots the fish swimming in the river below and swoops down to catch it and eat it. Pour the contents of cup B5 into cup B6.