

**NO IDLING**

**MIDDLE YEARS/SECONDARY**



Learning for a  
Sustainable Future

**LSF**

**ACTION  
TOOLKIT**

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## OVERVIEW

The anti-idling project offers many varied learning opportunities for students across a range of curriculum requirements. Students will be inspired to draw upon their science and geography knowledge, organizational skills and artistic flair to produce an intervention to motivate the community to stop idling. The intervention can be a short movie, a commercial or a photographic display. The creative piece can be viewed by the greater community at a live event, on YouTube or as an Action Project through LSF's [Our Canada Project](#) website. Encourage your students to engage with climate change and air pollution issues in a creative and empowering way!

### LEARNING OBJECTIVES:

- To create awareness of air pollution caused by car emissions while idling.
- To empower students to feel that they can change the behaviour of their family and community to positively affect their environment.
- To encourage students to explore ways to educate friends and family about environmental and social issues.

**SUSTAINABLE DEVELOPMENT GOALS:** *No Idling connects to the following [UN SDGs](#)*



*\* Please help reduce the amount of paper we use by only printing off double-sided and necessary pages. Model sustainable behaviour for your students; remember, your actions speak louder than words! [If you wish to access the student worksheets from this action toolkit, you can access them here.](#) \**

# WHY IS THIS PROJECT IMPORTANT?

Creating an Anti-idling project:

- Helps to reduce air pollution and smog, which causes health problems such as asthma and heart disease in the young and elderly. Health Canada estimates that air pollution contributes to approximately [15,300 premature deaths each year in Canada](#). This has tremendous social and economic costs.
- If Canadians avoided their unnecessary idling for only three minutes each day, it would prevent 630 million litres of fuel from being wasted and 1.4 million tonnes of carbon dioxide being pumped into our environment.
- Reduces the amount of money spent needlessly on gasoline. It has been estimated that 3% of Ontario's fuel is wasted by idling. An idling diesel engine will burn about 2.5 litres per hour. An idling gasoline engine will burn about 3.5 litres per hour. It has been estimated that Canadians waste \$1.8 million per day as a result of idling their cars.
- Excessive idling fouls spark plugs and increases engine wear, thus leading to higher maintenance costs and decreased lifetime use of a car engine.
- Creates awareness surrounding the issues of idling and challenges misconceptions.

**Grades:** 6 to 12

**PROJECT TIME:** Four weeks

## **CURRICULUM CONNECTIONS:**

This Action Toolkit can be linked to Science, Language Arts, Art, Geography, and Social Studies.

For information about curriculum links specific to your province/territory/region and grade, visit the [No Idling](#) review on R4R.

# PART A: SDG CONNECTIONS

## Connecting the SDGs to Learning

The United Nations 17 Sustainable Development Goals (SDGs), which were adopted by all United Nations Member States in 2015, provide a holistic understanding of the world's most pressing challenges, linking the social, environmental, and economic dimensions of sustainable development. They act as an urgent call to action for all countries and provide a shared framework using indicators and targets through which we can measure action and progress.

For this reason, it is key for students to understand the 17 SDGs and how their actions and climate initiatives can connect to these Goals. This activity will give students an opportunity to apply the knowledge they gained throughout this action toolkit and think critically about the SDGs.

1. As a class or in small groups, have the students explore the SDGs through the [UN's SDG website](#) and the [Global Goals webpage](#). Students type out or write on a piece of GOOS paper which SDGs they think could be connected to No Idling and why. Alternatively, if your class has an SDG poster or if you would like to create one, students can write down their No Idling connections on sticky notes and map them across the poster.
2. Using an active learning strategy, such as a [Talking Circle](#) or [Two Stray, One Stay](#), have the students engage with one another and explore the answers that they wrote down during the second step of this activity. You can find more active learning strategies that might come in handy in [Appendix B: Assessment Opportunities](#) or LSF's [Active Learning Strategy Bank](#)!

### SDG Connections: Examples

As you go through this action toolkit, your students may find many connections with the SDGs. Some possible No Idling connections that your students could make:



The direct and indirect impacts that idling has on our health. Leaving a car running emits harmful toxins which should not be inhaled (especially by children whose lungs are still developing). Car exhaust is also one of the main contributors to air pollution and smog. Unhealthy air quality can cause and/or exacerbate health conditions like asthma.



Learning about the negative effects of idling and finding solutions to minimize their own and communities' length of time in idling cars is a step forward in creating more sustainable cities and communities.



As the students work through this action toolkit,, there are many opportunities to discuss the importance of minimizing the consumption and production of gas through idling.



By avoiding idling, we can limit the amount of carbon dioxide (CO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) emitted into the atmosphere and reduce our overall greenhouse gas emissions (which is the single largest contributor to our warming climate). Throughout this action toolkit, the students will learn about taking action on idling in order to help the climate.



The emissions caused by idling pollute the air all land animals breathe. As the students learn how to minimize their idling, this directly helps the life on the land by keeping the air clean to breathe.

While these examples act as a starting point, give your students time to ask questions and discover the SDG connections for themselves.

If your students are not yet familiar with the UN Sustainable Development Goals, as a Minds On activity, allow some time for them to get acquainted by watching the video [The World's Largest Lesson](#).

## PART B: GETTING READY – ASKING WHY

### Activity B1: How does idling affect us?

In groups of four, ask the students to construct a mind map about idling. For tips on constructing mind maps, check out some of these resources:

- Video: [How to Make a Mind Map - The Basics](#)
- [RMIT on How to Create a Mind Map](#)
- [10+ Creative Mind Mapping Examples for Students](#)

If computers are available, offer an option to create a digital mind map through [Miro](#).

Ask students to write the word idling in the centre of the paper and to add everything they know about the topic – all in one colour. Suggested aspects to consider:

- causes
  - consequences for all humans, near and far
    - health
    - economic
    - beauty
    - justice
  - consequences for other animals and plants, near and far
  - consequences for future generations of humans, other animals and plants
  - solutions
1. Once completed, circulate the [Idling and Climate Change Facts sheet](#). Ask the students to roll a die and look at the factoid on that number. With a different colour marker, ask the students to add their new knowledge to their maps. Encourage them to make new connections
  2. Have the groups participate in a [Gallery Walk](#) in order to look at each other's work. Discuss.

3. Discuss how the different aspects of the issue allow us to consider idling from a systems perspective. Which “system” are we referring to? What are the different aspects of the system? Which ones often get considered, and which ones do not?
  
4. Individual reflection questions:
  - What did you find most interesting and/or surprising?
  - Create at least one question about the consequences of idling.
  - Is idling a problem in your community? If so, where and when? If not, why not?
  - Do you care whether or not people idle their cars in your community? Why or why not?
  
5. At the high school level, if students have their driver’s licenses, ask them to discuss when they idle their cars and why.





# Student Information Sheet



## IDLING AND CLIMATE CHANGE FACTS:

1. MYTH BUSTER:
  - Ten seconds of idling uses more fuel than restarting the engine
  - It takes no longer than 30 seconds to warm up your car, even in very cold temperatures
2. Why do people idle their cars?
  - People idle their cars because they want to warm up their car, are waiting for someone or are doing an errand. Sometimes, people leave the car running to keep the car warm or cool inside for the passengers' comfort.
3. Idling produces Greenhouse Gases (GHGs).
  - There are 7 GHGs, and they all act as a blanket of gases in the atmosphere to keep us warm. This keeps the sun's rays inside the atmosphere. This is a normal and healthy process; however, too much of the GHGs will change Earth's climate because too much heat will be kept in from the sun's rays.
4. Why is climate change a serious matter?
  - Too many GHGs are causing severe changes to our climate. This is called Climate Change. It sounds like a good idea for our winters in Canada to be warmer, but if it gets too warm, you won't be able to go skiing or ice skating. Climate Change causes habitat changes that are difficult and sometimes impossible for animal and plant species to cope with. For example, reductions in the amount of ice in the Arctic are dangerous for polar bears to hunt seals. Also, if too much Arctic ice melts, there will be flooding in areas all over the world that are close to the oceans.
5. One of the greenhouse gases that cause the change in temperature is carbon dioxide, which comes from car exhausts.
6. Idling produces smog! Smog is one of Canada's most dangerous air pollutants. You get smog when nitrogen oxide (NOx) from burning fossil fuels such as gasoline combines with sunlight and becomes a colourless, odourless gas. Because of the role that sunlight plays in its production, the sunny months from mid-May until mid-September are called the "Smog Season."
7. Idling a car is a waste of money. More than \$630 million of fuel is idled away by Canadians each year. It's also a waste of fuel. An idling car burns 3.5 litres an hour.

8. On average, a car idling for 10 minutes wastes over 1 cup of fuel, which is a waste of money and contributes unnecessary carbon dioxide to our atmosphere.
9. The good thing is that trees absorb carbon dioxide, but we would need to plant 30 million trees to absorb the air pollution resulting from Toronto drivers idling 5 minutes a day for one year.
10. Calculations after a Canadian survey determined that during winter, Canadians idle their cars for an average of 8 minutes a day, totalling 75 million minutes a day across the country. This adds up to 2.2 million litres of fuel and over 5 million kg of greenhouse gases.
11. However, municipalities across Canada have acted against idling by implementing idling by-laws. For example, the City of Toronto by-law indicates that a vehicle has an idling limit of 1 minute within a 60-minute period.
12. Additionally, certain vehicles have been manufactured to turn off their engines upon coming to a stop. Car companies like Jeep, Audi, Dodge, BMW, and more have car models with “start-stop” systems to be more fuel-efficient.
13. Idling is bad for your health. Vehicle emissions can aggravate asthma and allergies, cause headaches, lung disease and impair learning. Children are especially affected because their lungs and airways are not fully developed. Senior citizens are also at higher risk than most people.
14. The health problems due to smog and air pollution increase hospital admissions, emergency room visits and premature deaths. There are more than 15,300 deaths a year in Canada due to smog. This is sad, and it is also financially expensive—In Canada, we all pay for health care through our taxes.

## PART C: ANTI-IDLING EVENT

### Activity C1: Is Idling a Problem at Your School?

#### IN ADVANCE:

- After completing [Activity B1](#), explain that students will be conducting an idling survey at their school in order to determine if it is a significant problem. Students will come either before school begins or at the end of the school day to collect data regarding the volume of cars that arrive at the school during drop-off/pick-up periods, how many cars idle, and how long they idle. Students should develop their own survey tool. We have included an example which you may wish to use to shape the discussion; however, we suggest that you do not show it to the students until they have had an opportunity to develop their own tool. At the high school level, students could alternatively collect data at the beginning and end of lunch hour.
- Encourage the students to quickly devise a way to spot an idling car and record the data efficiently. There may be several cars they need to monitor at once, so it will require forethought to remain organized. [The Idling Data Collection Sheet](#) provides tips for identifying if a car is idling.
- Hand out [parking lot safety rules sheet](#) and emphasize the importance of behaving responsibly around moving cars. Inform students that the activity will be terminated if they behave in an unsafe manner at any point.
- Optional: Have the class investigate how to tell the difference between gas-powered, hybrid and electric vehicles. Have the students do their own research to understand how they should include these cars in their data.

#### BEFORE SCHOOL OR AFTER SCHOOL:

- Meet the students in the front foyer of the school to organize the survey approximately 20 minutes before the expected drop off/pick up rush.
- Split the class into partners. This will be easier for data collection and recording. Distribute one stopwatch to each pair of students and an [Idling Data Collection Sheet](#)
- Send the students out to collect idling data for the duration of the drop-off/pick-up period.

# **Student Information Sheet**

## Idling Data Collection Sheet

Observer Name(s): \_\_\_\_\_

Date: \_\_\_\_\_ Time: start: \_\_\_\_\_ end: \_\_\_\_\_

Is this BEFORE  or AFTER  your anti-idling campaign? (Check one box)

### Three signs that a car is idling:

1. **Look** for exhaust fumes
2. **Listen** for the engine
3. **Smell** of exhaust fumes (do not intentionally try to smell the fumes!)

Description of car (Small, Midsized SUV, Truck, Van)	Turned the car off	Left the car idling	Seconds idling	Did the driver leave the car unattended?	How many people are in the car (adults/ students)?	Comments and Observations
<i>Example Small Honda Civic</i>			178	NO	1 Adult and 2 Students	<i>The driver sat and talked on the phone with the car on.</i>
1						
2						
3						
4						
5						
6						
7						

Description of car (Small, Mid-sized SUV, Truck, Van)	Turned the car off	Left the car idling	Seconds idling	Did the driver leave the car unattended?	How many people are in the car (adults/students)?	Comments and Observations
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
<b>TOTALS</b>						

**NOTES:**

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# Student Information Sheet

## Safety Rules in the School Parking Lot

Your safety is the most important thing to remember when you are working near moving vehicles. It is important to remember this at all times, even if something funny or exciting happens. Here are rules that you must agree to follow during the idling observation activity. You must also decide as a class if there are any other rules you should add to the list.

### Rules:

- I will remain on the sidewalk and/or pedestrian-only areas.
- I will not stand behind a vehicle or in vehicles' blind spots at any time (it is difficult for drivers to see people if they are close to the car near the rear doors/rear tires. If possible, I will experiment with standing in these areas while an adult that I know sits in a car and tells me whether or not they can see me).
- I will not cross the path of a moving vehicle.
- If I must walk across the parking lot or road for any reason, I will look both ways and make sure all drivers are aware of your presence.
- I will always stay with my partner.
- I will not talk to drivers I do not know without an adult accompanying me.

Signature: \_\_\_\_\_

## Activity C2: Data Analysis and Emissions Meter

### PREPARATION CONSIDERATION:

To complete this activity, each student or pair of students will need a complete data set. Depending on how students organized the data collection exercise, this may require photocopies of each other's data charts.

#### A) DATA ANALYSIS

- Students will work individually or in pairs to complete the [Idling Data Analysis worksheet](#).
- Provide students with the opportunity to add information to the Idling Mind Map they created in [Activity B1](#).
- Once all of the groups have completed their assigned questions, they will (a) check their answers against one another or (b) exchange answers.

#### B) EMISSIONS METER

- Students will create a visual representation of the idling emission levels at their school—this poster will be their 'emissions meter'. Finished 'meters' can be displayed throughout the school and/or in the parking lot to raise awareness about idling.
- After splitting off to work in groups, give the [Emissions Meter worksheet](#) to the groups.
- If students would like to make more accurate calculations based on the size of the car, they can use this [Anti-idling Tracking Sheet](#) from Eco Schools:
- **Film or Photography Project**
- Students will work in their groups to create a video or photo display to exhibit to their school as an event!
- Ensure students have access to a device that can film a video; the preference if filming a video is that each group has access to an iPad since the iMovie app is student-friendly and easy to download onto the device.
- After groups are formed, hand out the [How to Make a Video](#) or [How to Make a Photo Display worksheet](#).

### C) REFLECTION

- Ask students to reflect on the questions below. You may wish to ask students to reflect on each question on a separate scrap piece of paper. You could then shuffle the responses and read them aloud to give the whole class a sense of the 'pulse' of the group.

#### Reflection questions:

1. What do you think about the amount of idling that happened at your school on the observation day?
2. What unit of measurement seems like the most important one to you: seconds of idling, minutes, litres of gasoline, grams of exhaust, etc.? Why?
3. Do you think that it is fair for people to idle? Why or why not?
4. Would you like the amount of idling at your school to change? Why or why not?
5. Create at least one question about this issue.





# Student Information Sheet



## Idling Data Analysis

Now that you have collected data on idling at your school, let's figure out how much pollution is created every day, month and year at your school.

### BACKGROUND INFORMATION

**Emissions:** For each minute of idling, the average vehicle produces 54.2g of emissions.

**Fuel use:** For every 30 minutes of idling, the average vehicle uses 1.75L of gasoline.

- 1) How many seconds of idling happened at your school during the observation period?  
How many minutes?
  
- 2) How many grams of emissions were created this morning/afternoon by idling at your school?
  
- 3) If your survey results are 'typical,' how many grams of emissions are created in
  - a) an average week at your school?
  
  - b) an average month at your school?
  
  - c) an average year at your school?
  
- 4) How many litres of gas were wasted this morning/afternoon by idling at your school?
  
- 5) If your survey results are 'typical,' how many litres of gasoline are wasted in:
  - a) an average week at your school?
  
  - b) an average month at your school?
  
  - c) an average year at your school?

- 6) In your community, approximately how much does gas cost per litre? How much did idling at your school cost each day?
- 7) The cost of gas is rising! How much will idling at your school cost on a typical day if gas prices rise to \$2.50 per litre?
- 8) Try to find out how many schools are in your school district and estimate how many litres of gas are spent and how many tons of emissions are created in a week, a month and a year.
- 9) What happens if you measure the idling at all schools in your province/territory? In Canada?
- 10) At the high school level, ask students to create a formula that could be used to calculate the emissions created by idling and how much money could be saved from not idling. They can use this [Arriving at Calculations](#) website from [Natural Resources Canada](#) as a guide

# Student Information Sheet

## Emissions Meter

Now that you have calculated the emissions created by idling at your school, let's use the numbers you have generated to create an emissions meter. This will help you to measure the success of your anti-idling action project. When you are finished, you will have a poster that displays your before and after idling data.

### Materials List:

- large poster paper or construction paper [already used on one side] (multiple colours are best)
- pencils, markers and or pencil crayons
- glue
- tape
- ruler
- scissors
- creative minds

### Instructions:

- 1) What do you think is the purpose of creating an 'emissions meter'?
- 2) Draw a side view image of a car. If you need assistance, [this website will teach you how to draw a cartoon car](#). The image will be mounted for people to see, so it needs to be poster size.
- 3) Choose an appropriate colour to represent the exhaust coming out of the tailpipe.
- 4) Draw something to visually depict the amount of emissions being created by idling at your school. For example, you could create an 'emissions cloud' that comes out of the tailpipe.
- 5) Choose a unit that you would like to use to educate other people about the amount of idling that happened at your school. Would you like to represent the idling in seconds? Minutes? Grams of emissions? Litres of gasoline? Dollars?
- 6) Why did you choose the unit that you chose?

- 7) Choose a scale to help you to represent the amount of emissions created by idling in your school. For example, for every 50 grams of emissions, make your emissions symbol (e.g. emissions cloud) one centimetre longer. This would mean that if there are 1000 grams of emissions, your emissions cloud would be 20 centimetres long. On your emissions symbol, clearly write the scale and indicate how much emissions were put into the air on the day you did the survey or how many minutes were spent idling or.... For example, make markings for every 50 grams on the emissions cloud... There is a sample emission cloud below.
- 8) Post the Emissions Meter in a place in your school where drivers will see it or in the parking lot if possible.
- 9) Continue with the rest of the anti-idling action project.
- 10) Once you have collected the post-project idling observation data, you will make another emissions symbol in a different colour to place on top of the pre-project emissions symbol.

## Activity C3: Video or Photography Project

### ***TO DO LIST FOR TEACHERS***

- Divide your class into groups of 3 or 4 students. Each group will make a 1–2 minute video or create a photo exhibit to achieve at least one of the following goals:
  - a) change idling behaviour in their school or
  - b) visually depict the relationship between humans, other animals, and the air we breathe (this may be a route to go for students who do not ‘care’ about idling),  
or
  - c) students’ choice

Upon deciding which project they will undertake, students should be instructed to bring their cameras/tablets/phones to class for practice (or see if you are able to borrow enough from your school). They will also bring the photography equipment on the day of the shoot. As homework, students can start thinking about ideas for their project. The student who will be volunteering to use their photography equipment should review the functions in advance of the shoot.

- Collect materials:

#### FILM PROJECT:

- o Camera/tablet/phone – only one per group is required (iPads are the best option since the iMovie app is very user-friendly).
- o Pens and paper to write out script or storyline.

#### PHOTOGRAPHY PROJECT:

- o Camera/tablet/phone/laptop (iPads are the best option for ease of use). Students can share a camera to become familiar with the functions.
  - o Pens and paper to write out the storyline.
  - o Bristol board for mounting pictures.
  - o Banner for displaying the title of the project.
- Tell teachers in your school that your class will be planning and implementing an event to build awareness about idling.

## ***THE PROJECT***

- Students will use the “student worksheet” to help them with developing a story for their movie or photo display.
- They will start to create a storyboard or storyline by writing a script or drawing the scenes they want to shoot.
- The storyline will have to be reviewed, and time will be needed to practice in advance of the shoot.
- Once the students know (and you have approved) what they want to shoot, they can then go out and shoot the film or take the pictures.
- Once they have all the footage or pictures, it is time to edit.
- In the worksheet, students are asked to identify criteria that could be used to assess the videos/photo displays. You may wish to assemble these criteria and use them to develop a rubric that can be used for self, peer and teacher assessment.

## ***EDITING THE MOVIE***

### **Editing film on an Apple device (Mac or iPad)**

- If you are using a Mac or an iPad you can use iMovie, which can be found at <https://www.apple.com/imovie/> or on the app store of your device
- This program will not work on a PC or Chromebook, if you have no access to Apple devices we recommend pursuing the photo display activity.
- Students will need to go through the tutorials to become familiar with the iMovie features.
- Set aside a few hours for practice to learn the most important features of iMovie.
- Students will learn how to
  - Import video into iMovie
  - Create a movie
  - Add music
  - Add sound effects
  - Add voiceover
  - Adjust colour
  - Crop and rotate images
  - Upload a movie to YouTube or download it as a file

## **MAKING AND EDITING A PHOTO DISPLAY**

- Students will use a digital camera to take pictures of the images they have discussed in their group session.
- Students should create a 'storyboard' to begin to think about what the photo display will look like. It can be a hard copy display or a 'slide show' display using a projector. Before they take photos, students should create a storyboard to describe the content of photos, the effects they may wish to use, creative display options, etc. This will help students plan the types of pictures they would like to take.
- The number of pictures for display is for the students to decide, but they should keep in mind that the photography display should clearly tell a story.
- Once the students have taken the pictures they will need to upload the pictures onto their computer.
- Once they are uploaded, the students can use [Google Photos](#) to edit their work
- Students will need time to learn how to edit their pictures. Set aside some time so students can practice editing.
- There is an option for students to practice on the pictures they already have on their devices.
- On a Chromebook/laptop or at home, students can become familiar with the Google editing software before they set out to edit the pictures for the anti-idling display.
- Once the students have edited the pictures, they should be printed or displayed through a slideshow on a screen that will run in a continuous loop.





# Student Information Sheet



## How to Make a Photo Display

### STEP 1 – PLANNING THE SHOOT

- 1) Refer to your mindmaps, your observation sheets, and your data analysis sheets for ideas.
- 2) What would you like people to think/feel/do **while** viewing your photo display?
- 3) What would you like people to think/feel/do **after** watching your photo display?
- 4) Who is the best audience for your photo display? (ie. Who would most likely be able to do the thing(s) that you described in question 3)?
- 5) Have you ever had the experience you described in questions 2 and 3 as a result of looking at pictures or watching a film? If yes, what do you think made the pictures/film effective?
- 6) Brainstorm: What kind of story do you want to tell people about idling and/or the air we breathe?
- 7) What criteria would you use to determine whether or not a video or photo display is effective?
- 8) Form a basic idea for a story. What is the message of your photo display?
- 9) Do you want to create a hard copy display or a 'slide show' display using a projector?
- 10) Create a storyboard to begin to think about what your photo display will look like. On the storyboard, you should describe:
  - a) the content of the photo display,
  - b) the effects you may wish to use,
  - c) creative display options, etc.
- 11) What are the different roles involved in making a photo display? How does your group want to divvy up the roles? For example, will everyone have one role throughout the process? Will you rotate roles? Etc.

### STEP 2 – THE SHOOT

- 12) Learn a few features, and review how your camera works. Are there any special features/effects that would be useful?
- 13) Shoot your photos.
- 14) Once you have all your photos you will need to edit them.

### STEP 3 – EDITING YOUR PHOTOS

- You can edit photos for free through Google Photos by using a free Gmail account.



# Student Information Sheet



## How to Make a Video:

### STEP 1 – PLANNING THE SHOOT

- 1) Refer to your mindmaps and your observation sheets, and your data analysis sheets for ideas.
- 2) What would you like people to think/feel/do while viewing your video?
- 3) What would you like people to think/feel/do after watching your video?
- 4) Who is the best audience for your photo display? (ie. Who would most likely be able to do the thing(s) that you described in question 3)?
- 5) Have you ever had the experience you described in questions 2 and 3 as a result of looking at pictures or watching a film? If yes, what do you think made the pictures or film effective?
- 6) Brainstorm: What kind of story do you want to tell people about idling and/or the air we breathe?
- 7) What criteria would you use to determine whether or not a video or photo display is effective?
- 8) Form a basic idea for a story. What is the message of your video?
- 9) Think of as many angles as possible. Think about who, what and where you'll shoot your video.
- 10) Create a storyboard to begin to think about what your video will look like. On the storyboard, describe the content of the video, the effects you may wish to use, music, script, etc.
- 11) What are the different roles involved in making a video (e.g. director, etc.)? How does your group want to divvy up the roles? For example, will everyone have one role throughout the process? Will you rotate roles? Etc.

### STEP 2 – THE SHOOT

- 12) Learn a few features, and review how your recording device works.
- 13) Shoot your footage. You may have to do this several times to get this right. Be careful to check each setting on your recording device as you operate, or you might miss the best shot. It's a good idea to review your footage after each "take."
- 14) Once you have all your footage you will need to edit your video.

### STEP 3 – EDITING YOUR FILM

- 15) If you are using an Apple Mac or iPad, the easiest way to edit your film is to use iMovie.

## Activity C4: Communicating your Message

**IMPORTANT NOTE:** It is important to communicate the anti-idling message to a wider audience than the school; in order for the activities to be meaningful, the students need to reach real drivers. There are two options offered; however, both options are prefaced by 'uploading' and 'sharing' in which students share and evaluate their work with their peers. Once this has been done, there is the option to communicate the anti-idling message through a newsletter, a website, or a live event at the school/in the community. If possible, ask students to decide on criteria for choosing a method of sharing the videos/photo displays (e.g. number of people reached, likelihood that people will consider the videos/photo displays, time required to create communication opportunity, etc.). Together, decide on a method for sharing the videos/photo displays.

1. Upload your videos and photo displays so that they can be shared easily:

*UPLOADING ONTO YOUTUBE/OTHER SOCIAL NETWORKING OR AS AN ACTION PROJECT SITES:*

- [Refer to the tutorial on how to upload onto YouTube, Facebook or Vimeo through iMovie](#)
  - Movies can be uploaded onto [YouTube](#) without the iMovie function.
  - Go to [YouTube](#) and click the top right corner image of a video camera. Then follow the instructions for "uploading a video."
  - Be a part of LSF's Action Projects. Upload your video to [Our Canada Project](#) to be a part of our yearly contest!
2. You may wish to have students anonymously provide feedback to peers about their displays using the assessment criteria you developed as a group.
  3. Discuss which video or parts of videos/photo displays were most effective and why.
  4. Now that students have likely developed some concern regarding the idling issue, they need an opportunity to change the behaviour of those people who have control over idling at school (largely parents!). Ask students to brainstorm ways to share their photo displays and videos with people in their community who drive. For example, an event at the school to share photo displays and videos (you could piggyback on another event like a school concert, parent interview night, etc.) and/or a newsletter which directs parents to websites where they can view the photo displays and videos.
  5. Ask students to identify:
    - a) the goal of the event or newsletter
    - b) indicators that will help them to measure the success of the event or newsletter (for example, the number of people that attend the event, number of people that express their commitment to not idling, etc.)

c) ask students to set goals (e.g. 30 people will attend the event, 40 people will visit the website where the videos/photo displays are available for viewing, etc.).

### ***Teacher Support Materials for Planning an Event***

- 1) Discuss with the students the inherent complexity of planning an event, especially for a large number of people.
- 2) Determine who the target audience is and the best way to reach that audience.
- 3) Decide upon the date and location of the event, such as the gym, virtual, hybrid, or another venue.
- 4) Ask students to sign up for one of the five groups below, explaining that each group will undertake a vital part of the event organization. Explain briefly what each group will do:
  - **Communication** – This group will devise the means of communicating the event to the target audience. This may include posters, invitations, advertisements and/or articles in newspapers, newsletters, etc.
  - **Location** – This group will be responsible for booking the venue, sorting out the permit, booking chairs if needed, and liaising with the caretaker or venue manager.
  - **Equipment** – This group will take responsibility for getting the necessary equipment, such as a projector and screen. Additionally, they will need to operate the equipment.
  - **Event Facilitation** – This group will need to decide upon an M.C., create a script and supply and serve refreshments (if applicable).
  - **Pledge Organization** – This group needs to order the Anti-Idling signs and organize their installation. They will also have to create a system that guests can use to indicate their support for the initiative (for example, a large Pledge Poster that people can sign at the event committing to anti-idling). Push your students to think beyond the way things are usually done and ask tough questions about what actually works (for example, are posters effective?).
- 5) Hand out [Event planning worksheets](#) and give the groups 20 minutes to start organizing themselves and planning how they will complete their event section. Give each group a binder to help organize themselves and keep all their important paperwork together.
- 6) Encourage your students to produce a 'green' event; go to [Green Shift](#) for ideas

Note: If planning an in-person event is too difficult you may wish to opt for a virtual event where people can join at the comfort of their homes (idle-free!).



# Student Information Sheet



## EVENT PLANNING

### **COMMUNICATIONS GROUP**

#### **GET THE MESSAGE OUT THERE!!!**

- Your mission is to alert your target audience that there is an event happening that they don't want to miss.
- In your own personal experience, what communication strategies seem to work and which ones do not seem to work (e.g. posters, emails, letters home, etc.)?
- Which methods of communication are consistent with your values (e.g. do you want to use a lot of paper?).
- Make a list of what you need to do, which group member is responsible for getting it done, and by what dates.

# 💡 Student Information Sheet 💡

## LOCATION, LOCATION, LOCATION!

### **LET'S BUILD THIS EVENT!**

- Your group is responsible for the venue.
- You will need to book the venue (probably through the office), and you will need to check if you need a permit (if it is at school, the Principal or school secretary will help you to organize this). Below is a starting checklist of things you will need to act upon. Discuss the list in your group and add anything else you need to do.

Item	Task Notes (what you need to do)	Completed
Date		
Venue		
Permit		
Caretaker assistance		
Furniture (eg. chairs)		
Entrances and Exits		
Signage for the day of the Event		



# Student Information Sheet



## EQUIPMENT PEOPLE HERE!

### WHERE DOES THAT WIRE GO?

- Your group is responsible for the event equipment. You will need to decide what is needed, and then you will need to acquire it and be able to operate it at the time of the event.
- You will need to book the equipment to make sure you have it for the event.
- If you need help learning how to operate the equipment, ask for help.
- Make time to practice using the equipment. Your group will also be responsible for getting all the videos and photo displays together (from your classmates).
- Make arrangements for technical help from someone knowledgeable in case you need it at the time of the event.

Below is a list of items that you may need; there is space to add more.

Item	How do we book it?	Who will practice using it and make sure it works...	Who will look after booking it?
Projector			



# Student Information Sheet



## EVENT FACILITATION

- Your group is responsible for running the event on the day of the event. Things to consider:
  - Do you need an 'M.C'? If so, what should they say?
  - Your group will also be responsible for organizing the schedule for the event. Work out the timing of each part and each film/creative piece.
- If you have decided to serve refreshments at the event, you will need to organize what you need.
- How can you ensure that all aspects of the event are consistent with your values? (For example, will you have disposable dishes at the event?)

Here's an action list to get you started; add more to it and work out how to get everything you need.

Item	Task Notes (what you need to do)	Who is Responsible?	Completed?
M.C.			
Script			
Food			
Table for Food			
Drinks			
Cups			
Napkins			
Timetable			



# 💡 Student Information Sheet 💡

## 'COMMITMENT' ORGANIZERS

Your group is responsible for designing a method for gauging people's reaction to the event on the day of the event and for assessing their commitment (or lack of commitment) to changing their behaviour. **How could you do this?**

Brainstorm Ideas:

General Description of Idea We Have Chosen:

Task	Person Responsible	Completed?	Comments

## PART D: ESSENTIAL FOLLOW-UP ACTIVITIES

### Activity D1: Discussion and Evaluation

Ask students to reflect on the following questions individually:

1. What did you think of the event/newsletter campaign?
2. What did you think about your own group's performance? How successful/unsuccessful was your group in carrying through with its responsibilities? Explain.
3. Do you think that people were influenced by your videos/photo displays/other event? Why or why not?
4. What would you like to do differently the next time you are involved in something like this?

### Activity D2: Evaluation of Impact

1. Ask the students to prepare to repeat the idling observation activity ([Activity C1](#)).
2. Ask students to discuss/identify: are there any changes that we should make to the idling observation procedure (that will still allow you to compare your data to the data you collected on the first observation day)? Ask students to decide on a method for comparing the pre and post-data sets. The [Data Comparison Chart and Questions worksheet](#) has been provided for guidance if the students need it (although it is probably better to let them start on their own before reading our suggestions).
3. Students should make a new emissions symbol/cloud (in a different colour than the first one) and place it directly on top of the old one. This will allow them to visualize the change in emissions (if any).
4. If there is a positive change—celebrate! Ask students how they can build on this success.
5. If there is not a positive change—celebrate the effort first and then ask students to:
  - a) Identify the skills they learned in the process of doing this project.
  - b) Analyse why a positive change did not occur.
  - c) Identify actions that they or others could take that they think **would** be effective in encouraging people to reduce the amount they idle their cars.



## Activity D3: Announcing the Results

Ask students to determine how they will share the results of their idling work with the wider community. For example, students could:

- (1) make an announcement to the whole school during the morning/afternoon daily announcements
- (2) send a letter/email home to parents
- (3) use some of the other communication vehicles the communication team used to advertise the event.
- 4) offer a virtual option so people can attend from their homes

## PART E: EXTENDING THE LEARNING

### Activity E1: Reaching Out to the Community

Encourage students to share what they have learned with any driver that they come in contact with within a safe situation. Share [Appendix A](#) for tips about how to talk with people about important issues in a meaningful way.

### Activity E2: Personal Commitments to Reducing Emissions

Now that your students have a better understanding of the consequences of vehicle emissions, offer the students the opportunity to make a personal commitment to reducing the amount of emissions they create through the activities that require a vehicle. Using the [worksheet](#) provided, have the students work out their 'emissions footprint.' Once the students have calculated their emissions footprint, brainstorm personal commitment options, choose a time period (e.g. two weeks) and ask students to try to honour their commitment and to keep a log of how the process goes. **Provide students with an option not to make a personal commitment to change. These students could keep a log of all of the opportunities that they had to do something differently and an explanation of why they chose not to take the emission-reducing option each time.**

Examples are:

- Ride a bike if the trip is during daylight hours and an appropriate distance.
- Before going to a group activity (soccer practice, a friend's house, etc.) arrange to carpool with at least one other friend who is also going.
- If it is alright with your parents/guardians, use public transport more often to get around. Use Google Maps to help you plan your trip.
- If you are inspired to help others reduce their emissions, organize a ["walking school bus" to school](#) (older students/adults walk younger students to school so they arrive safely without fossil fuels) or a carpooling program for your school.
- Create a mileage log for your family. Log where you drive and the distance so that you can calculate your family's emissions footprint. Ask your family—can we reduce it?

These actions will be more powerful than any 'education campaign' you can create. **Be the change you want to see in the world!** -Mahatma Gandhi



## Student Information Sheet



# PERSONAL COMMITMENT TO REDUCING EMISSIONS

Just because you don't drive doesn't mean you don't generate vehicle emissions. Every time you are driven to school, to an activity or to a friend's house, you are contributing to the creation of emissions! It's easy to calculate your own carbon dioxide emissions; you can use the 'local', 'mid' and 'out of town' distance estimates, or you can work out the actual distance travelled using Google Maps and multiply the distance by 190g of emissions per kilometre.

Remember to count each time you do an activity in a week and to count the return trip

Activity	Average Times a week	Local (5kms) 950g	Mid distance (15 km) 2850g	Out of town (40kms) 7600g	Actual Kms x 190g	Totals
<b>Example</b> Soccer Practice	2					30 km 5700g
<b>Weekly Totals:</b>						

- 1) **How** can you reduce your emissions? (For example, are there places you can walk, ride a bike or take public transit to?)
- 2) Is it important to you to reduce the amount of fossil fuels you use? Why or why not?

## Activity E3: Publish A Story to the Our Canada Project Website

**OUR CANADA PROJECT** has made a call for submissions:

Calling all students, teachers and Action Team members: We would love to publish stories about your Action Projects and/or any other sustainability projects taking place in your school and community. Please submit your Action Project through [ourcanadaproject.ca](http://ourcanadaproject.ca)

Write a story about your project and/or your personal commitment to reduce your own emissions. Submit your story to the [Our Canada Project Website](http://ourcanadaproject.ca) to be published. Ideas for the story include:

- Why did your class choose this action project?
- The consequences (social, health, economic, ecological) of idling, air pollution, and climate change your class feels are important.
- Surprising facts that you found about idling emissions at your school.
- The impact that your campaign had (before and after findings).
- A summary of the video/photo display projects your class made with links to where people can view them.
- Funny/exciting moments that happened when making your projects/campaign.
- Tell others why they should do a project similar to yours.
- If you want, provide an email address for students who are doing the project to contact your class for help.

# APPENDIX A: HOW TO START A CONVERSATION WITH FRIENDS AND FAMILY ABOUT ENVIRONMENTAL AND SOCIAL ISSUES

Now that you have identified a problem, the next step is to do something about it. It may seem impossible to make a difference, but that is not the case. Often, making a difference starts at home. A conversation with the adults in your life, a brother, a sister, or a friend, can get the ball rolling. Here are tips for talking about an environmental and/or social issue that is important to you with the people that matter most in your life.

- **Get informed:** What is the issue? Why it is a problem? Who/what does it harm? What are the myths? Why do you care about it?
- **Think about what matters to your audience:**
  - Are the adults in your life concerned about money? If they are, let them know about how much idling costs in dollars.
  - Are some of your friends and family concerned about health issues? If they are, tell them about how much pollution idling emits and how that affects everyone's health?
- **Choose a good time to talk:** Sometimes when people are busy, they aren't good listeners. If you get a chance, talk about idling at the dinner table or when you are driving in the car with your family or friends.
- **Be excited:** You can be inspirational. Try to show your passion for the issue. Tell them the reasons it matters to you. Excitement is contagious.
- **Tell them how you plan to change your behavior:** Sometimes people care about an issue, but don't know what changes to make. By telling them what you plan to change they will get ideas about how they could change their actions. Lead by example!
- **Share your work:** Talk about your project as you work on it and learn more. Sometimes people need reminders for new information to sink in. Don't pester them, just encourage them.
- **Take small steps to achieve big goals:** Everyone is not always listening, but someone is. If you catch one person's attention you have succeeded.
- **Be a good listener:** Make sure you listen to the person's response to your comments. Try to be open-minded. Also, make sure you listen carefully the next time she or he has an issue they want to talk about with you.



# APPENDIX B: ASSESSMENT OPPORTUNITIES

Throughout this action toolkit, there are many assessment opportunities available. We recommend going beyond the rubric and journal entry to include options for students to showcase their abilities in ways that benefit their strengths. Below, we have included some assessment ideas that can be used before, during or after the learning! To find out more active learning strategies, check out the [Active Learning Strategy Bank](#), a part of our [Climate Learning resource](#)

## 1) Graffiti wall

- The students are school artists and are invited to explain to the school community about what they think they know prior to and what they have learned in the lesson. Offer a space for students to add words or draw up on the wall.
- A graffiti wall is a tool where you can share ideas and opinions about topics discussed in class.

## 2) Choice board

- Choice boards are graphic organizers that offer a chance for students to differentiate their learning by having the students choose what assessment they would like to complete. A choice board is composed of different squares, with each square being a different option of activity. Students choose one or more of these activities to complete. They can progress from one activity to another in whichever way it works for them.
- For more information on choice boards, [check out this website](#)
- Example of a choice board:

Create a Bumper Sticker	Oral Story about how the “fish/plant/animal” feel being in nature	Make an Announcement
Draw a Picture	<b>FREE CHOICE</b>	Create a dance or yoga session
Make Music (any materials)	Sing a Song	Use Recycled Materials to Make a Model

### 3) Exit Tickets

- At the end of class, have the students explain how their thinking has changed (with a personal example) as a result of the inquiry during the lesson. This can be done through writing or drawing!
- Checking out this document detailing what [I used to think... Now I think model](#) for exit tickets.

### 4) Change the School!

- This is a fun challenge that can be done often at the end of the inquiry to have the students make a change in their own school! Students come together in partners or small groups and come up with a plan that will make the school “greener” by using ideas from this action toolkit. Have the students present their ideas to the principal/superintendent/custodians or any other stakeholders.
- Funding is available through **Learning for a Sustainable Future to purchase anti-idling signs**. The grant application is available at <https://lsf-lst.ca/forms/youth-forum-grant-request-2022/>.

### 5) 3-2-1 Strategy

- Have students summarize their learning by identifying 3 things they have learned, 2 things they would like to learn more about and 1 question they still have.
- [Check out this website for more information on the 3-2-1 strategy](#)

### 6) 30-Second - 1 Minute Sound Bite

- The students work in partners or small groups to summarize a topic to their peers in 30 seconds
- [Check out this video detailing this activity!](#)

### 7) Tableau

- This drama activity is a great way to have the students engage in their inquiry in a different and unique way! Students create a still picture without talking with their bodies, which communicates the meaning of a concept that they

learned in class. Teachers can effectively use Tableau to see newly gained knowledge from the inquiry.

- [For more information on Tableau, check out this website!](#)