

Quick Start Guide

The **It's Not Cool to Idle at School!** anti-idling program is an exciting way to engage students in a hands-on project to improve air quality in and around your school. Designed primarily for 5th – 8th grade students, the project uses a multi-disciplinary approach to help reduce pollution and raise awareness of important health and environmental issues.

Engage

Get students involved.

Educate

Educate drivers about idling.

Inspire

Get drivers to pledge.

It's
Not Cool
to Idle
at School!

Get approval for your program

Talk with teachers, parents, and staff to ensure that all key participants and decision makers know about the program.

Watch and learn from the DVD

Review the DVD with those interested in the program.

Understand the issue

Use the enclosed materials to introduce students to why idling vehicles are a health and environmental issue. If a child in your class has asthma, have them talk about what it is and how it affects them.

Make a plan

Use class time to define the roles of students. Choose Idling Monitors, decide on the days you will measure idling, and allocate time to calculate and discuss results.

Appoint Idling Monitors (IMs)

IMs record idling behavior during drop-off or pick-up times with the Observation Form. IMs should try to be discrete when timing idling habits. This will help to ensure that drivers are not changing their behavior before the pledge campaign.

Calculate and report findings

Have IMs report findings to the class. Then use the Calculation Worksheet to estimate pollutants emitted.

Engage the school

community and spread the word

Have students educate their parents and ask them to pledge (see enclosed pledge medallions) to not intentionally idle around school grounds. Engage other classrooms in the pledge effort to increase the effectiveness of this project. Other ideas for educating your community include:

- making signs for the parking lot or drop-off zones;
- starting a letter writing campaign / letters to the editor;
- organizing projects with other classrooms;
- making pledge medallions by copying the sample enclosed or by creating a design or their own; and
- hosting an assembly for the entire school.

Count pledge participants

Calculate how many drivers took the pledge.

Follow-up observations

Have students do at least one follow-up observation to see if idling behavior has changed. Do this one to two months after the pledge medallions have been distributed.

Share your success!

Local papers and broadcasting stations might be interested in your story! Use enclosed news clippings for ideas on how to create your own story.

What you need:

- Interested students
- A teacher to help run the program
- Supportive administrators
- Chaperones for observation times
- 2-5 hours of class time
- Anti-Idle Toolkit
- Stop watches
- Clip boards
- Pens



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This is an empowering program for students with great benefit for the health of our environment and school community. Have fun getting started!

Fact Sheet

When cars and buses idle, their emissions increase dramatically, and these emissions include chemicals that have a negative affect on human health and the environment. **If you need to wait for more than 10 seconds**, turn off your vehicle to help reduce exhaust fumes emitted in the environment and around your school.

It's
Not Cool
to Idle
at School!

First, let's dispel the myths:

Many people idle their vehicles because they think it is better for their cars or uses less fuel. But think again! Here are a few simple facts to set drivers straight.

1

Restarting your engine uses more fuel than idling.

False!

According to the U.S. Environmental Protection Agency, idling for more than 10 seconds uses more fuel than restarting your engine.

2

Idling helps to warm up my car, especially in colder weather.

False!

Idling a vehicle is not an effective way to warm it up. The best way to warm up a car is to drive it.

3

Frequent restarting is hard on my car engine and battery.

False!

Frequent restarting has little impact on engine components like the battery and starter motor.

4

Idling won't hurt the vehicle – if anything it helps it run better.

False!

Excessive idling is hard on engines and can damage cylinders, spark plugs, and exhaust systems.

Get more facts on the back! 

Did you know?

A single car dropping off and picking up kids at school can put **three pounds of pollution** into the air each month. If parents band together and pledge not to idle at school, they can significantly reduce air pollution in our environment and around our schools. Remember...**It's not cool to idle at school!**



Idling facts:

1

An idling vehicle emits 20 times more pollution than one traveling 32 mph. By turning off your engine, you can reduce global warming, pollution, and smog.

2

Air pollutants from your vehicle's idling engine – ozone, sulfur dioxides, and particulate matter – are respiratory irritants. When inhaled, they can work together to increase asthma symptoms.

3

Vehicles left idling in traffic areas around schools cause surrounding buildings to have significantly higher pollution levels – inside and out.

4

Children are more vulnerable to air pollution because they breathe 50 percent more air per pound of body weight than do adults.

5

A single car dropping off and picking up kids at a school can put three pounds of pollution into the air each month.

6

Vehicle exhaust contains carbon which mixes with oxygen in the air to form carbon dioxide, a major contributor to human-caused global warming.

7

Breathing car exhaust can increase asthma symptoms – especially in children. In 2007, 73,000 children under the age of 18 were reported to have asthma in Oregon.

By turning off your vehicle's engine when parked or waiting, you can reduce air pollution around your school!



Asthma is reaching epidemic proportions in Oregon.

More than 282,000 Oregon residents have been diagnosed. In 2007, an estimated **73,000 Oregon children** under the age of 18 were reported to have asthma. Asthma is the most common chronic illness in children and the cause of many school absences. In 2003 alone, children who had at least one asthma attack (about 4 million American children) collectively missed **12.8 million school days** due to asthma.

Asthma Alert!

Remember, It's Not Cool to Idle at School! Take the pledge and spread the word!

Want to know more?

Visit our website for more information and additional resources on the effects of idling: www.oconline.org.

What's in the Exhaust?

When cars idle, they emit many types of pollutants into the atmosphere, including the three described below. It is important to understand exactly how they are created and how they affect our health and well-being. Do you know other pollutants that cars emit?

1 VOC

Volatile Organic Compounds

VOCs are the by-product of the incomplete combustion of gasoline in an idling vehicle. They contribute to smog and cause various health risks, including eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment.

2 CO

Carbon Monoxide

Carbon Monoxide is a deadly gas known for its tasteless and colorless characteristics. It has the ability to reduce the flow of oxygen in the bloodstream, causing severe mental and visual impairment.

3 NOx

Nitrogen Oxide(s)

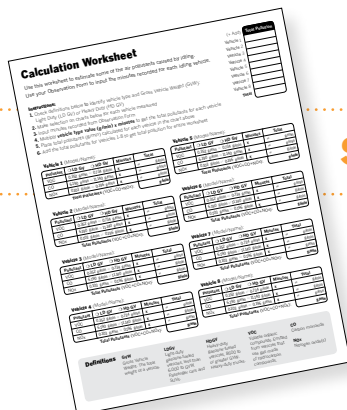
NOx forms when fuel burns at high temperatures, like in motor vehicles. It is a major ingredient in smog and causes respiratory difficulties.

Now you know the facts! You are ready to calculate the total pollution from idling vehicles observed around your school!

Calculate the Pollutants

Using the calculation tables provided on the back of this sheet, you will be able to determine the amount of each pollutant emitted in grams per minute and the “total pollution” put into the atmosphere. The pollutants you calculate using this worksheet are some of the pollutants you are helping to prevent being emitted by asking drivers to take the anti-idling pledge. Wait one to two months after the initial observations, then re-measure idling behavior around your school and see if there is a decrease in vehicle pollution.

With every pledge you get, you become closer to your goal of creating a healthier environment and school community!



See Calculation worksheet on the back!



Want to know more?

Visit our website for more information and additional resources on the effects of idling: www.oeconline.org.

Calculation Worksheet

Use this worksheet to estimate the amount of some air pollutants emitted when idling.
Use your Observation Form to input the minutes recorded for each idling vehicle.

Instructions:

1. Check definitions below to identify Gross Vehicle Weight (GVW):
Light Duty (LDGV) or Heavy Duty (HDGV).
2. Choose the appropriate column (LDGV or HDGV) for calculating pollutants for each vehicle.
3. Input minutes recorded from Observation Form.
4. Multiple each vehicle type value (g/min) x minutes to get the amount of each pollutant emitted.
5. Add your calculations for VOC, CO and NOx to get the total pollutants (g/min) for each vehicle.
6. Place total pollutants (g/min) calculated for each vehicle in the chart above.
7. Add the total pollutants for Vehicles 1-8 to get total pollution for entire worksheet.

(+ Add)	Total Pollution
Vehicle 1	
Vehicle 2	
Vehicle 3	
Vehicle 4	
Vehicle 5	
Vehicle 6	
Vehicle 7	
Vehicle 8	
Total	

Vehicle 1 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 2 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 3 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 4 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 5 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 6 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 7 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Vehicle 8 (Model/Name):

Pollutant	<input type="radio"/> LDGV	<input type="radio"/> HDGV	Minutes	Total
VOC	0.352 g/min or	0.734 g/min	x =	g
CO	6.190 g/min or	11.140 g/min	x =	g
NOx	0.103 g/min or	0.196 g/min	x =	g
Total Pollutants (VOC+CO+NOx):				g

Definitions

GVW

Gross Vehicle Weight. The total weight of a vehicle.

LDGV

Light-duty gasoline-fueled vehicles, less than 6,000 lb GVW. Passenger cars and SUVs.

HDGV

Heavy-duty gasoline-fueled vehicles, 8500 lb or greater GVW. Heavy-duty trucks.

VOC

Volatile organic compounds. Emitted from vehicles that use gas made of hydrocarbon compounds.

CO

Carbon monoxide

NOx

Nitrogen oxide(s)

(Your school logo or name here)

(Sample Letter)

(Date)

(Name of parent or guardian)

(Address)



Dear (Name of parent or guardian):

Our class is working to improve air quality around our school and we would like your help to do it.

Did you know that you can reduce air pollution by simply turning off your engine while you are waiting to pick us up and drop us off at school? This can reduce our exposure to air pollutants from auto exhaust. A single car dropping off and picking up kids at our school can put three pounds of pollution in the air each month.

To help you remember to turn off your engine when waiting, please sign both the enclosed **"It's Not Cool to Idle at School"** pledge medallion and the below pledge form. Please return the pledge form to your student's teacher. Hang the medallion on your rearview mirror as a friendly reminder not to idle. Also, please refer to the enclosed fact sheet for more information about how turning off your engine can help improve our health.

We will keep track of how many parents take the pledge. A study of how many parents stop idling will also be done to assess how our pledge program has worked on tackling pollution around our school.

Please sign the pledge and remember to reduce idling to help us all breathe easier around our school. Thank you!

Sincerely,

(Your Class Name)

.....
Cut along the dotted line and return to your child's teacher.

Take the Anti-Idle Pledge

"I pledge that I will improve and protect the air quality at our school and in our community by **not idling more than 10 seconds** around our school."

.....
sign here

.....
date