2026

Engines Off Schools

Anti-idling Program Toolkit

ENGINES OFF

RAQC
Regional Air Quality Council

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About the Engines Off Toolkit for Schools

This comprehensive anti-idling toolkit provides schools with a detailed, step-by-step guide to successfully implement and promote their campaign. Designed to be both practical and engaging, the toolkit features a curated selection of resources tailored to support outreach, education, and community involvement.

As you explore the contents, you'll find customizable templates and examples for:

- School-wide emails and newsletter announcements
- Social media posts to boost visibility and engagement
- An official anti-idling pledge to encourage participation
- Creative and interactive lesson ideas for students in **grades 3 through middle school**

These materials are intended to make campaign planning seamless while fostering student involvement and environmental awareness. It is recommended that this campaign is run between **September and October, or late March to May**.

For added convenience, all resources are also available as individual documents in a shared Google Drive folder, allowing for easy access and distribution.

Introduction

This is an education and outreach program of the Regional Air Quality Council. The audience for this program is very targeted: school communities. Parents and Guardians of elementary and middle school children are a moveable population because they are invested in the health of their kids. So, with just a little bit of education, they can be convinced to stop idling their vehicles.

PUBLIC HEALTH, CLIMATE IMPACTS, COST SAVINGS!

Vision

Inform and educate teachers, students, staff, parents, and school communities on the health, climate, and vehicle expenses associated with idling that they will carry with them through years of school and in other parts of life.

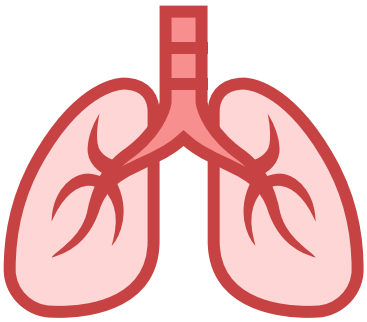
Mission

To provide accessible, inclusive, and hands-on anti-idling educational campaign that is personalized to every school and the capacity of students, staff, and volunteers.

Idling Impacts

What is idling?

Vehicle Idling is when a vehicle's engines is running while the vehicle is not in motion. Essentially the vehicle is stopped but the engine is still on.



Health Impacts of Idling

- Air pollutants that come from idling can be associated with asthma, impaired lung functions/development, increased allergies, impaired reproductive health, and lead to cancer and cardiovascular diseases later in life (Center for Environmental Health, 2019).

- Vehicle sourced air pollution includes PM 2.5 which is a pollutant that can easily pass through lung membranes.

- Children breathe more air per pound of body weight than adults, meaning a higher dose of pollutants when they come in contact (U.S. Environmental Protection Agency, 2015).

- High levels of air pollution have been linked to increased school absences and hospital visits.

Idling Impacts (cont.)

Environmental Impacts of Idling

- Idling a car for one minute can fill 150 balloons with emissions, including carbon monoxide, nitrogen oxides, PM2.5, benzene and other VOCs, and more (Leibrock, 2013).

- Idling vehicles contribute to Colorado's ground-level ozone pollution problem.

- Idling releases CO2, which is the largest contributor to climate change.

Economic and Vehicle Impacts of Idling

- Turning off your vehicles ignition for just 5 minutes can save more than $200 per year in fuel and wear and tear costs.

- Idling your vehicle for 10 seconds uses more fuel than turning your engine on and off.

- While idling, the engine may not reach its optimal operating temperature, leading to incomplete fuel combustion. This can cause fuel residue to build up on engine components like spark plugs and contaminate the engine oil (Elk Grove Village, n.d.).

Engines Off Timeline

This is a suggestive timeline for the Engines Off campaign, adjustable based on staff capacity and activities. Best run in mild-weather months; aligns well with October's National Children's Health Month or April's Earth Day for easy lesson plan integration.

- **Introduce Engines Off to staff:** Late September or late March
- **Run Idling Observations:** 1st week of October or April
- **Introduce Engines Off to Parents & Student Body:** 2nd week of October or April
- **Ongoing Education & Outreach:** One message per week on each platform
- **Optional Activities:** Can be implemented over span of entire month
- **Closing Out the Campaign & Outreach:** 1st or second week of November or May

Idle-Free School Pledge

As schools become involved in the Engines Off campaign they are encouraged to sign our pledge to be idle free.

Engines OFF Pledge

I care about the health of children, public safety, and clean air!

NO IDLING

Children Breathing

I hearby pledge to my child that I will improve air quality in the community and protect children's health by turning my ENGINE OFF when I am stopped for 10 seconds or more at or around my child's school.

* Exceptions emergencies, extreme weather, operating equipment for a disability

Adult(s) Name*

Parents, guardians, and community members are also given the opportunity to sign a separate pledge, as a reminder to turn their engines off when on school grounds.

These pledges can be downloaded and printed as a daily reminder to not idle!

**Both of these forms are electronic and are located on the https://www.enginesoff.org/schools*

School Handbook Example

**We encourage all schools to add an anti-idling policy to their school handbook to ensure clean air for years to come!*

Why do we have an Anti-idling policy?

Vehicle emissions release harmful pollutants that may impact children's health and the environment. Monitoring at schools has shown elevated levels of air pollution during the afternoon hours, coinciding with parents/caregivers picking up their children. By reducing vehicle idling time this can dramatically reduce these pollutants and exposure levels. Young children are particularly vulnerable to air pollution because their lungs are still developing. Pollution from idling vehicles is correlated with asthma attacks, decreased lung function and development, increased allergies, cardiovascular disease and some types of cancer.

The purpose of our Anti-idling policy:

The purpose of our Anti-idling policy is to reduce staff and children's exposure to outdoor air pollutants by eliminating all unnecessary or avoidable idling by passenger vehicles and delivery trucks. Doing so will protect the health of children and staff, especially those with asthma and other environmentally related illnesses.

Anti-idling policy guidelines

- When waiting for children to be picked up at school, all engines should be shut off. Exceptions for extreme hot or cold temperatures.
- All drivers should turn off their engines when they arrive on school property and when they expect to be parked for more than 10 seconds.
- Parents and families are notified and reminded of our anti-idling policy via email, newsletter, and other communication every semester.
- Anti-idling signs are posted in school parking lots to serve as a regular reminder for parents, staff, delivery personnel, and the community.

Children's Environmental Health Network. (2025). Sample idling policy. Eco-Healthy Child Care®. http://cehn.org/wp-content/uploads/2025/03/SampleIdlingPolicy.2.2025.pdf

Email Templates

Emails to Teachers/Staff

Dear Teachers and Staff,

Going forward, we will have a vehicle anti-idling policy to protect our school's air quality and reduce greenhouse gas emissions. The policy is: ***All persons operating vehicles at the school should turn off their engine when parked for more than 10 seconds.***

To spread the message, we're implementing an Engines Off at School outreach campaign, and we need your help! Here's how you and your students may be involved:

- *Please display the attached Engines Off at School flyer in your classroom and explain it to your students.*
- *Throughout the semester, we'll be sharing idling facts via social media channels and email newsletters - feel free to share these with your class!*
- *If your class would like to implement this program into your lesson plan, please access the following Google Folder for ideas or read through the PDF document provided.*

As a reminder, the vehicle idling policy at the school is in effect. We are implementing this policy to reduce the students' exposure to air pollution emitted from idling vehicles. Curbing idling also reduces unnecessary greenhouse gas emissions. We encourage you to eliminate unnecessary idling not only at our school but anywhere you are waiting for more than 10 seconds. This simple change will improve the air our children breathe, as well as the air quality in our neighborhoods.

Included with this letter is a flyer with more information about idling reduction.

Thank you for your support!

Email Templates

Emails to Parents/Community:

Dear Parents and Guardians,

As part of the school's effort to protect students' health and educate students about the environment, we are initiating an Engines Off anti-idling campaign! Going forward, we ask that ***all persons operating vehicles at or near the school turn off their engine when parked for more than 10 seconds.***

Idling vehicles produce particulate matter, which is dangerous and can easily penetrate the lungs. Just like you won't sit in a closed garage with an idling car, a row of idling cars outside near the school negatively impacts students' health. Did you know? Children breathe more air per pound of body weight than adults, meaning a higher dose of pollutants when they come in contact. And every minute a car idles, it emits enough emissions to fill 150 balloons with harmful pollutants, including nitrogen oxides and particulate matter, as well as greenhouse gas emissions.

We'd appreciate your help eliminating idling at and near school. Here's how you and your students may be involved:

- *Read the attached flyer about idling*
- *Go to the webpage linked below, watch our anti-idling video and talk about it with your kids.*
- *Keep an eye out for idling facts that we'll be sharing via weekly emails and social media.*
- *Students will take home information about idling, including an informational letter, and a flyer with a QR code to online pledge that you will be encouraged to sign and print out to place on your fridge, in your car, etc. Students will be asked to provide proof of guardian signature to win class points.*

As a reminder, we are asking you not to idle your vehicles to reduce the students' exposure to air pollution. Curbing idling also reduces unnecessary greenhouse gas emissions. We encourage you to eliminate unnecessary idling not only at our school but anywhere you are waiting for more than 10 seconds. This simple change will improve the air our children breathe, as well as the air quality in our neighborhoods.
Included with this letter is a flyer with more information about idling reduction.

Thank you for your support!

Classroom Lesson Plans

The lesson plans included in this toolkit are designed to align with *Colorado's Academic Standards*. Below is a list of relevant standards into which these activities can be seamlessly integrated. Incorporating the lessons within these frameworks helps ensure meaningful, standards-based learning that supports both educational goals and environmental awareness.

Colorado Academic Standards

- *Third Grade, Standard 3. Earth and Space Science Topic #3*
- *Fourth Grade, Standard 3. Earth and Space Science. Topic #5*
- *Fifth Grade, Standard 3. Earth and Space Science. Topic #3*
- *Middle School, Standard 3. Earth and Space Science. Topic #11*

Anti-idling Observations

How to conduct Observations:

- Make sure the weather is nice enough that conditions are safe for all observers.
- Be sure to cover all pick-up zones at the school
- Have observers ready about 20-30 minutes before school is dismissed.
- Be sure that any students conducting the observation are appropriately paired off, in groups and/or supervised, as determined appropriate.
    - All observers should be prepared to stay until student pick-up is complete.
- All observers should have the following items:
    - Observation sheets (See Observation Sheet in Google Folder)
    - Pen (don't use pencils)
    - Clipboard or hard surface to write on
    - Stopwatch or cellphone to track time
    - Observers' complete observation sheets

Have students or other volunteers collect the sheets, tally up the data (see above), and determine how much idling was observed at the school.

Anti-idling Observations Worksheet

Engines Off at Schools

Idling Observation Form

Observer Name:

School: **Zone:**

Day of Week: **Date:** **Start Time:** **End Time:**

Weather (circle one):
Sunny Partly Cloudy/Sunny Cloudy Precipitating Windy

Outside Temperature (circle one):
Hot Mild Cool Cold **Estimated Temp:**

Vehicle (passenger cars) or Truck (pick-up truck, SUVs, or minivans)		Brief Vehicle Descrip-tion	Arrival Time	Is Vehicle Idling? (Y/N)		Depart Time	If idling: how many minutes?	Notes
V	T			Y	N			
V	T			Y	N			
V	T			Y	N			
V	T			Y	N			
V	T			Y	N			
V	T			Y	N			
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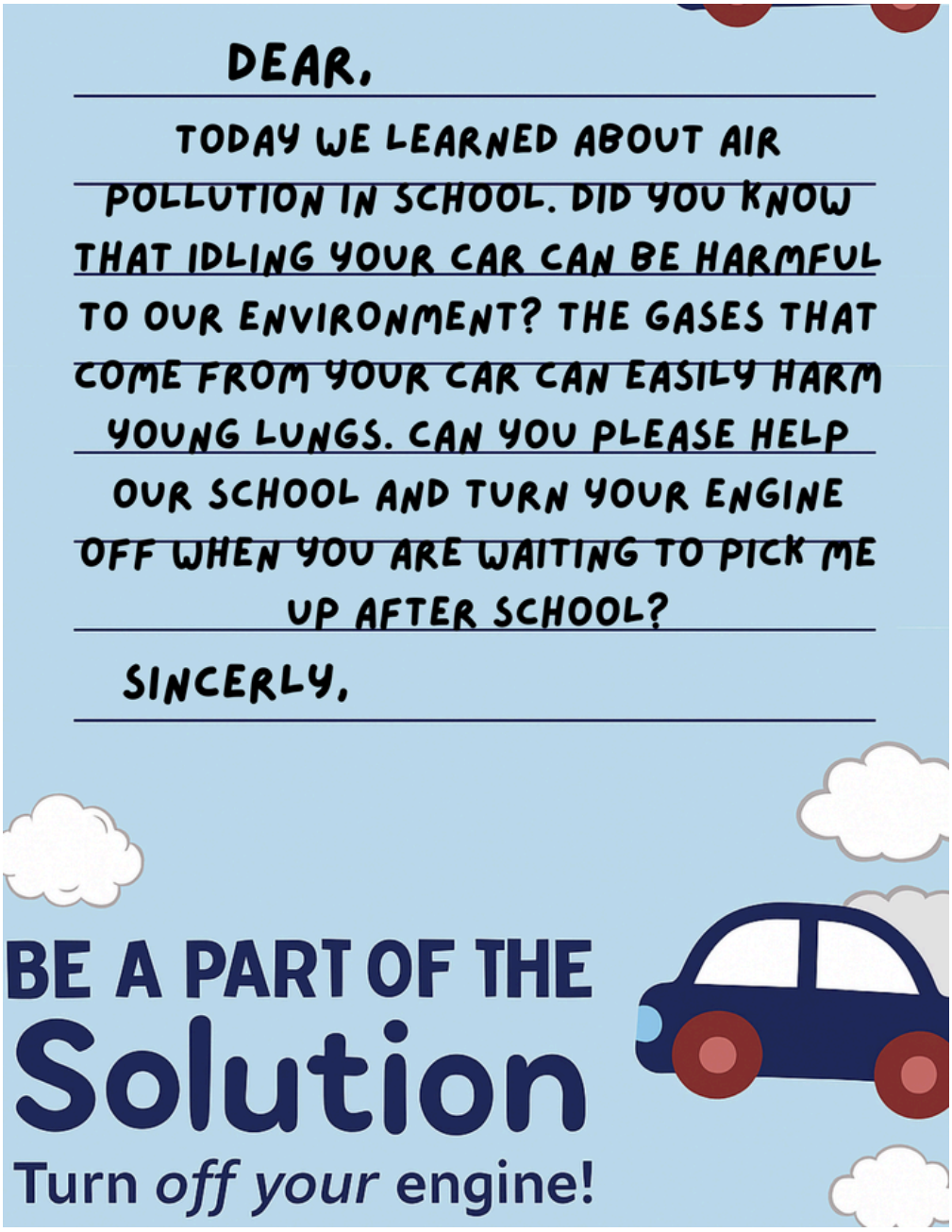
Student Letter to Parent or Guardian

As the Engines Off campaign kicks off at school, it is important to get parents and guardians involved and make them aware of the school's anti-idling policy. What better way to do this than with a personalized letter from their child!



Anti-idling Sign Design Contest

During the Engines Off campaign, teachers are encouraged to share information about idling with their class and have the students design anti-idling signs using any medium preferred by the art teacher.

Idling Background Information	Idling is when a vehicle is on but not moving. Idling is bad because it puts unhealthy pollution in the air that kids breathe, idling also wastes more fuel and money than turning an engine off and back on. Idling is bad for the Earth because it releases greenhouse gas emissions that cause the planet to warm up.
Environmental impacts of idling	• Personal vehicles generate around 30 million tons of CO2 every year just by idling. • Every gallon of gas burned while idling produces more than 20 pounds of greenhouse gases. • Eliminating idling would reduce an equal number of emissions as taking 5 million vehicles off the roads would.

If the school and art teacher want to turn this art project into a contest and have reflective signs printed, students should follow the following guidelines:

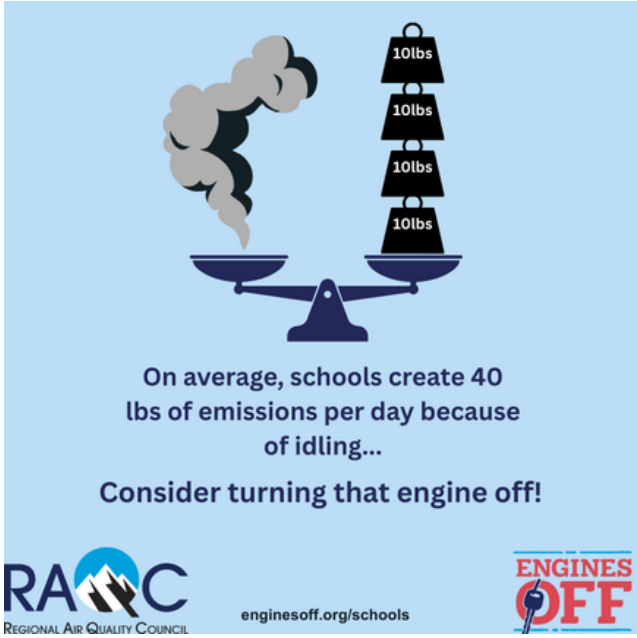
- Two winning sign designs from each school will be selected and printed by the Regional Air Quality Council.
- The completed signs will be 12 inches by 18 inches.
- Do not add 3D elements as those will not translate into a 2D printed sign.
- Do not use thin lines and fine details as those may be lost when digitally transferred.
- Do not use suggestive images or profanity.

Anti-idling Sign Design Student Examples

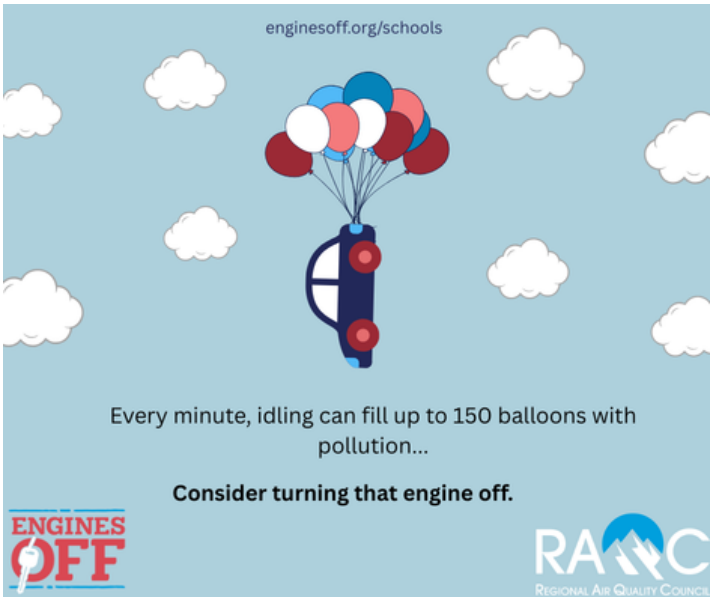
Promotional Materials

Flyer

Instagram



Facebook



Anti-Idling Signs

The RAQC is providing and installing reflective anti-idling street signs to public schools in the Denver Metro Region at no cost. We will try to accommodate every interested school, but preference will be given to elementary schools, Title 1 schools, and middle schools that are willing to participate more in the RAQC's free Engines Off program.

To request a sign, click HERE!

Contact us

Does your school want to participate in the anti-idling campaign?

You can find more information on our website **here** or all materials within our **Google folder**.

Please contact our Engines Off Schools Program Coordinator, Haley Mendoza, for more questions and to get started.
hmendoza@raqc.org

ENGINES OFF

A program of the RAQC
Regional Air Quality Council

This toolkit was inspired by the **EPA Idle-Free Schools Toolkit for a Healthy Environment**