



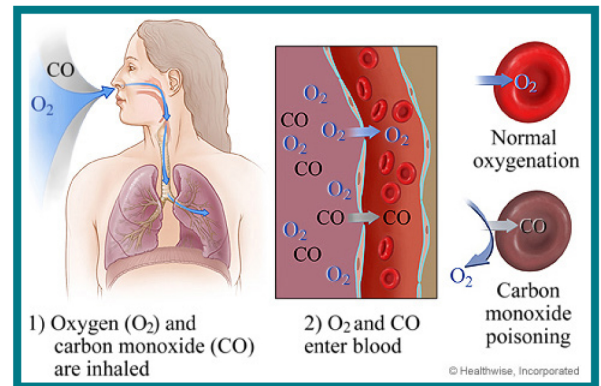
# Safety Science Tools

## The Dangers of Carbon Monoxide

Open your students' eyes to the importance of scientific literacy. As a Science Educator, you can help them draw connections between science, engineering, math, and language. These lessons can help build their confidence, strengthen their interest, and apply their knowledge to solve new problems.

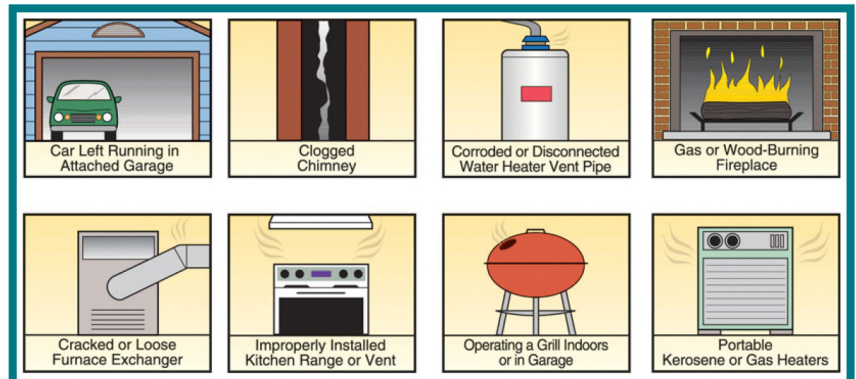
### WHY IS CARBON MONOXIDE DANGEROUS?

Carbon monoxide is an odorless colorless gas formed during combustion. When carbon monoxide is inhaled - even in tiny concentrations - it combines with the hemoglobin in the red blood cells to prevent the delivery of oxygen to the body. Considering we humans are all about getting oxygen, that's a problem.



### WHAT ARE THE CO DANGER SPOTS?

The chart below shows several points in the house where Carbon Monoxide leaks can occur. Chimneys and appliances should be checked regularly by a certified inspector to make sure there is no danger of a CO leak.



### WHAT ARE THE SYMPTOMS OF CO POISONING?

#### CARBON MONOXIDE POISONING – WHAT ARE THE SYMPTOMS?

You can't see it, taste it or smell it but it can kill quickly and with no warning.



Unsafe gas appliances produce a highly poisonous gas called carbon monoxide (CO). It can cause death as well as serious long term health problems such as brain damage.

### HOW CAN I KEEP MY HOME SAFE?

Carbon monoxide is odorless, colorless, and tasteless, making it impossible for people to detect. Fortunately, there is a solution. A carbon monoxide detector measures the amount of CO in the air and sounds an alarm if CO levels enter the danger zone. These alarms are an inexpensive and important safety addition to any home. Make sure your home is has a working CO detector and remember to check the batteries regularly.





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### THE ACTIVITY

For this activity, your students will be creating a Public Service Announcement (PSA). A PSA is an advertisement that is used to increase people's understanding of an issue and / or get them to change their behavior.

Have your students break into groups. Ask each group to brainstorm ideas for increasing people's awareness of the dangers of CO and what they can do to protect themselves. After the groups have determined which idea they want to focus on have them create a skit. From the skit they can develop a PSA video about the dangers of Carbon Monoxide poisoning. The videos should include all the information they've learned about Carbon Monoxide, including the sources of CO, the symptoms of CO poisoning, the science behind CO poisoning, and the things you can do to prevent and detect CO leaks.

After the PSAs are complete, challenge students to share them with others and become Safety Smart Ambassadors of CO Detection!

**EXTRA CREDIT:** Post your PSA to one or all of your school's social media channels and [#safetysmartschool](https://twitter.com/safetysmartschool) for a chance to be featured on [ulsafetysmart.com](https://www.ulsafetysmart.com).

