

Name:

## **Measuring emissions**

There are lots of different activities that emit particles and gases into the air. Some of these particles and gases affect our health. Others, such as carbon dioxide (CO<sub>2</sub>) can change the climate. But how do we know which of these particles and gases cause the most damage?

Petrol used in cars, and wood and coal used for heating all emit carbon dioxide and particles. The amount of gas and particles created depends on the fuel type used.

The number of things that emit anything to the air, what fuel they run on, and how they are being used are all important parts of an emission inventory. An emission inventory is a big list, or spreadsheet, that includes everything that emits in an area such as a town, region or country.

Things in your house that would be included in an emission inventory include a car, fireplace, gas cooker or motorbike. Other things in town included in the emission inventory could include trains, buses, factories, ships and quarries.

Everything in the inventory has an emission factor, which is how polluting that thing is. The emission factor for cars is how much carbon dioxide is produced for every kilometre driven.

The emission factor for wood fires is the amount of pollutant (woodsmoke and gases) for every kilogram of wood burned.

For both wood fires and cars, newer models are usually cleaner and more efficient than older models.

### ***Key Points to Take Away***

- Emission inventories list everything that can pollute the air in a town, city or region.
- Things can emit different amounts of pollution depending on the fuel used and how often it is being used.

1. What is an emission inventory?

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2. List three things in your home that would be included in an emission inventory.

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3. List three things in your town that would be included in an emission inventory.

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4. What is an emission factor?

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