

Name:

## **How do we improve air quality?**

The biggest way to improve air quality is to reduce emissions. You can work out where the emissions come from by looking at an emission inventory.

Emissions inventories record the things that emit pollution, how long they are used for, and how much pollution they emit. Reducing any of these three things will reduce emissions.

### **Using vehicles and heating that produce fewer or cleaner emissions**

An effective way of reducing emissions is by using non-polluting vehicles and equipment. Electric cars and heat pumps use electricity which produces zero emissions instead of petrol, coal and wood which can produce lots of emissions.

There are many ways of making emissions cleaner. Hybrid cars produce less emissions by sharing the work between an electric motor and a petrol engine. Ultra-low emission wood burners burn wood more cleanly than standard wood burners. Burning wood pellets is a good way to reduce smoke, as well as using dry wood rather than wet wood.

### **Cutting down the amount you use vehicles or heating**

Driving less and burning less wood also reduce emissions. Living close to school or work, means you don't drive as far which creates less emissions. It also gives you the choice to walk, cycle, or use public transport like taking the bus or train reducing emissions even less. Working from home is another way to reduce emissions because you don't have to commute. Having good insulation in your home means you don't have to use as much energy to warm your home. Insulation works the same way as being tucked into a blanket, trapping all the warmth in and keeping the cold out.

### **Reducing the amount of pollution that reaches your house**

Reducing emissions can't be done everywhere, so another way to improve air quality is to try and reduce the amount of pollution around you. Building houses back from roads reduces the amount of traffic pollution that reaches the house. Building barriers such as walls or planting trees can also help to capture road pollution before it gets to the house. Another way to reduce the amount of pollution that reaches people is to have taller chimneys. Having taller chimneys releases emissions further away from the air that people breathe.

### **Removing pollution once it's there**

Once pollutants get into a building, ventilation is the simplest way to remove it. It can be as simple as opening a window for ten minutes or using a fan to blow the pollution back outside. Another way to remove pollutants from the air is to use a filtration system like an air purifier, but these can be quite expensive.

1. What is the biggest thing we can do to improve air quality?

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2. List four ways we can reduce emissions.

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3. Match the cars and heating options below to the type of emissions they create.

Ultra-low emission wood burner

Zero emissions

Electric car

Cleaner emissions

Hybrid car

Zero emissions

Burning dry wood

Cleaner emissions

Heat pump

Cleaner emissions

4. In the picture below, the house has been built away from the roadside to reduce the amount of traffic pollution entering the house. Can you draw the other two things that could be done to reduce pollution around the house?



5. Ventilation is important to remove pollution from your house. What is an easy way to ventilate your house?

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