



## Smoke Alarms - How do smoke alarms work?

### Fact

- A smoke alarm has a beeper and a battery to make it beep
- Inside the smoke alarm there's also a little round container called an Ionisation Chamber. In that container little electrical bits called Ions and Electrons move between two metal plates.
- When smoke gets into the chamber they attach to the Ions and Electrons, slowing them down.
- The smoke detector notices that the bits aren't moving very fast and it alerts the beeper.
- The smoke alarm beeps loudly to tell you there's smoke in the house and to get outside quickly!

### Do you know

- If your family is fire wise you'll have smoke alarms fitted in your house.
- If there's a fire in your house smoke alarms can save your life by telling you to get out of the house – even waking you up if you're asleep.
- You need to replace the battery in your smoke alarm regularly and if your alarm starts making funny little beeping noises it means it needs a new battery.
- Fire is always dangerous but smoke can be dangerous too because it makes it hard to breathe and to see so as soon as the smoke alarm goes off – get out!

### Experiments you can do

#### Plan your escape

Work out with your family the best ways to get out of the house from each room. And where you should all meet in an emergency. You should choose a place that's easy to get to for everyone that's far enough away from the house so that you're safe.

Talk to your family about what you should do when there's lots of smoke in a room. Remember smoke rises up so the air will be clearer down on the ground – get down, get low and get out!

Make sure that you have smoke alarms fitted in your house and that the batteries are fresh.

### Other Investigations

What other fire wise rules should you know?

Talk to your teacher and family about other fire wise tips and how you can keep yourself and your family safe.

### Jokes

What did the big chimney say to the little chimney?

You're too young to smoke!