

LESSON PLAN

Introduction

Every year, poor gas work and faulty or old appliances cause approximately 40 accidental deaths and more than 200 non-fatal cases requiring hospitalisation in England and Wales. Over 4,000 people also attend A&E, diagnosed with CO poisoning.

Use the **Get Gas Safe** resources as part of your school's **Safety Week** to ensure that your pupils stay gas safe in their homes.

These resources have been created by **Gas Safe Charity** and supported by **Electrical Safety First** and **RoSPA**.



Learning outcomes

Pupils will be able to:

- Describe the basic nature of household gas
- Understand the risk posed by faulty gas appliances
- Explain how to stay 'gas safe' at home

Resources

- Three short **videos**
- **Interactive House**, including a spot-the-hazards activity, a multiple choice quiz and a gas infrastructure diagram
- A **PowerPoint presentation**
- **Two activity sheets**
- Lesson plan, including classroom tasks to maximise understanding for all ability groups
- Homework activities and ideas for involving parents and carers

Age group

Recommended for pupils aged 9 to 11.

Please note: This lesson has been designed for teachers and pupils in the UK. Some of the information included may not be relevant to teachers and pupils from other countries.

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Gas Safe key messages

Pupils will learn these key gas safety messages:

1. What to do if gas is smelt.
2. Badly fitted and poorly maintained gas appliances can cause gas leaks, fires, explosions and carbon monoxide poisoning.
3. Carbon monoxide is poisonous, has no smell and is hard to detect.
4. All gas appliances should be safety checked once a year and serviced regularly.
5. What the Gas Safe Register is and how to find a registered engineer.
6. Only a Gas Safe registered engineer is legally allowed to fit, fix or service gas boilers, cookers, fires and other gas appliances.

Running the lesson

Time required

50 minutes

Open the **PowerPoint presentation**.

Slide 1: Hazards in the home (5 minutes)

The **Interactive House** is a fun independent activity which teaches pupils to recognize and manage household hazards. In pairs or individually, pupils explore the house and try to spot all the hidden hazards. The challenge is to click on them all.

The house should be used to introduce the concept of gas appliances as potentially dangerous. Briefly discuss as a class:

1. What the gas hazards are? (Boiler, gas cooker, gas fire)
2. Why gas is hazardous? (It is highly flammable)
3. Why it is easy to overlook gas as a hazard? (It can't be seen)

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Slide 2: Hazards in the home video (5 minutes)

As a trigger, before you watch the video, show pupils a carbon monoxide alarm and ask if they know what it is.

Now watch the **first video**. The **Hazards in the home** video covers:

- What carbon monoxide is, why it is dangerous and the importance of fitting a carbon monoxide alarm
- What the Gas Safe Register is and how to find a registered engineer
- Why gas appliances need to be checked once a year and serviced regularly.

Slide 3: Make it safe video (10 minutes)

Demonstrate how gas is supplied to the home by using the gas infrastructure screen at the top of the **Interactive House**.

Then play the **second video**. The **Make it safe** video covers:

- What gas is, including that it is often invisible and odourless
- The dangers of poorly fitted or maintained gas appliances
- What to do in an emergency.

Recap that gas is naturally odourless, so a chemical is added to it to make it smell of cabbage. Ask the class why this is done.

Activities:

Activity Sheet 1 (10 minutes)

- Working in small groups, pupils should complete **Activity Sheet 1: Make it safe**
- The pupils should decide which items from the 'toolbox' can be used to make each of the hazards safe. Alternatively, the sheet could be cut up and used to play a matching pairs memory game.

Activity Sheet 2 (10 minutes)

- Working individually this time, pupils should complete **Activity Sheet 2: The gas safety checklist**
- This activity involves creating a gas safety checklist for their home. Pupils could create their own template using a blank checklist, or fill in the missing words in the checklist provided.
- Once completed, the checklist can be taken home as part of the homework task.

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Slide 5: Conclusion (5 minutes)

Ask pupils what they have learnt about safety in the home. Repeat the key safety messages:

- What to do if gas is smelt (open doors and windows, tell an adult, call the gas emergency number)
- Carbon monoxide is poisonous, has no smell and is hard to detect.
- Badly fitted and poorly maintained gas appliances can cause gas leaks, fires, explosions and carbon monoxide poisoning.
- All gas appliances should be safety checked once a year and serviced regularly (and this must be done by a Gas Safe registered engineer).

It is strongly recommended that you outline the accompanying **homework activity** at this point. This is so that important safety messages are taken home and discussed with parents and carers.

Certificates or stickers can be printed onto a sheet of standard labels to reward students for their work.

Extension ideas

1. In pairs take on the **quiz** which is found in the **Interactive House**.
2. Design a sticker which has an important gas safety message on it.
3. Write and/or illustrate a comic strip story about gas safety called 'My Gas Safe Hero'. This could be done as a whole school competition.
4. Research the history of gas safety, such as the use of canaries in coal mines to alert miners to the presence of carbon monoxide.

Homework activities

1. Ask pupils to complete their gas safety checklist at home with their parents or carers.
2. Pupils should be given a **parents' leaflet** to take home.