

Learn about SGN with and friends George prof Teresa Isabelle

Cool facts • fun games • adventures and more!

Natural gas with Prof. Paul

SGI

Professor Paul here, but you can call me Prof! Today we're going on an adventure to discover how natural gas is made.

What's a geologist?

How did it all start?

65 million years ago when dinosaurs ruled the earth the remains of tiny plants and creatures were buried under layers of mud and sand.

Over the years, the earth on top of the plants and creatures became so heavy it turned them into rocks, and over time they became oil and gas.

What happens next?

Gas tries to force its way up through the earth but is trapped within the folds of rock under the earth and sea.

How do we find it?

Special scientists, called geologists, have to figure out which rocks hold gas.

How do they do this?

The rocks are deep in the ground under the sea. Geologists set off small explosions on the surface of the ocean to create sound waves that go under the ocean and bounce off the rocks, like an echo. The geologists use the echo to make a map of where to find the gas in the rocks.

Cool.

Why do we need gas and electricity?

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Gas and electricity are both forms of energy. We need energy to create heat to cook our food and keep our homes warm.

Do you know what type of energy you use at your house? If your cooker uses a flame it might be gas.

Did you know... some cars can run on natural gas?

Natural gas is a type of fossil fuel, like oil and coal. We can also make biogas from food waste, landfill and wastewater treatment plants.

Looking after our environment

We need to burn fossil fuels to make energy but this gives off bad gases that damage our environment.

Not good for 🔿

These bad gases are called 'greenhouse' gases and they are making our world's climate warmer and changing our weather.

We use natural gas because, although a fossil fuel, it is cleaner and less damaging for our environment.

That's a good thing! 🙂



Start

We bring the gas from under the sea to the land using ships and pipelines.

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We use jet engines, like in an aeroplane, to move the gas through big steel pipes to cities and towns.

Our gas story begins in the sea. ____

Teresa, Gas technician

The pipes are very strong so gas does not escape. \square

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As the gas gets closer to homes, the big pipelines become smaller and smaller pipes.

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By the time gas reaches your home or school, the pressure in the pipe is the

same as in a balloon.

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We can convert waste from food and landfills into biogas which heats some family homes.

Isabelle, Innovation manager

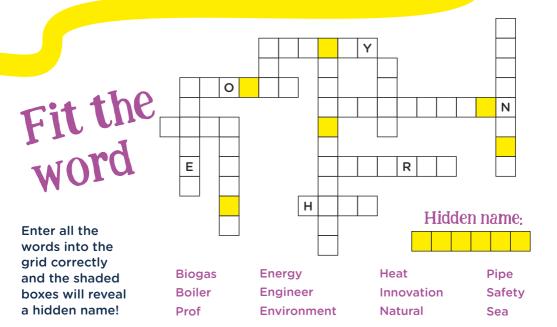
Gas in your home

The pipes that bring gas to your home and school are under the ground. S_G

George, Gas engineer

When the gas pipe reaches your home it passes through a meter which measures the gas. If your house uses gas, you might have seen your meter on the wall outside, in the garden or under the stairs.

The gas goes to your boiler which heats the water for you to have a shower, wash the dishes or heat your radiator.



Click here to download a printable version of this page and play connect the pipes.

other uses for gas

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When gas is burnt it provides energy to heat homes and water, and cook meals.

Gas provides energy to big factories which make cars, toys and other things we use every day.

Your school may use gas to stay warm in the winter, cool in the summer, or cook your lunch in the canteen.

Can you connect the small gas pipes to the big one?

Remember, always ask to see the engineer's badge before you let him/her into your house.

SG

George

engineer

Gas

Gas safety

If you smell gas, tell an adult. You can help them follow these six steps to gas safety:

> **Open all doors** and windows to let the gas out

If you can, turn off the gas at the meter

Ring the gas emergency number - 0800 111 999 - giving your correct address

Do not light any matches or lighters or let anyone smoke

Do not switch any electrical equipment (including lights) on or off

Do not enter a cellar if you smell gas

Girls and boys, we hope you've had a great time learning all about gas! George

Click here to download a printable version of this page and complete the word search.

Can you find all the hidden words we've learnt today?

Words can go from side to side, up and down or diagonally

Т	D	В	L	U	С	W	Y	V	Н	κ	L	Μ	Η	κ
Y	R	G	W	Е	Ν	V	I	R	0	Ν	Μ	Е	Ν	Т
S	С	R	Q	κ	Ρ	С	В	F	Q	н	Y	Η	G	С
D	Ρ	Е	Q	R	С	L	Μ	I	0	R	R	Е	Ζ	С
Ι	Μ	Е	н	Q	Ν	н	Y	D	L	S	G	L	V	D
Ν	Т	Ν	н	X	S	S	Ν	Q	С	X	S	Α	Ρ	Е
0	W	н	J	W	Α	I	G	С	S	W	U	Ι	S	X
S	Α	0	J	н	F	М	Х	F	Р	κ	Е	Ζ	L	Ν
Α	Z	U	Μ	G	Е	0	L	0	G	I	S	Т	Е	X
U	I	S	Μ	Z	Т	D	V	Н	W	N	R	κ	κ	Y
R	Ν	Е	J	L	Y	I	J	U	E	G	Μ	F	G	н
F	D	С	В	S	В	F	U	Р	1	М	L	R	В	Е
Ρ	I	Ρ	Ε	L	I	Ν	Ε	S	G	V	Е	С	F	Α
V	Ν	Α	Т	U	R	Α	L	L	J	Ν	W	Е	Μ	Т
н	U	Α	Ζ	Ε	Ν	G	I	Ν	Е	Ε	R	Ρ	Ε	Ι

Find me:

Dinosaur	
Energy	
Engineer	

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Environment Fossil Gas Geologist Greenhouse Heat Natural Pipeline Safety

Now you've learnt all about gas, why not test your knowledge and complete our quiz online?