



Teacher Resource

Gas Shortage

Focus Questions

Discuss the BTN story as a class and record the main points of the discussion. Students will then respond to the following:

1. Gas is not a fossil fuel.
 - a. True
 - b. False
2. Why is there a shortage of gas at the moment? Give at least two reasons.
3. Which countries does Australia export natural gas to?
4. Which state keeps 15% of gas produced for Aussies?
5. What are some solutions to the gas shortage problem?

Activity: Class Discussion

Discuss the information raised in the BTN Gas Shortage story. Ask students to record what they know about natural gas on a mind map. What questions do students have? Use the following questions to guide the discussion.

- What is natural gas?
- Give some examples of what natural gas is used for.
- Where is natural gas found?
- Why is there a natural gas shortage in some parts of Australia at the moment?
- What impact is the war in Ukraine having on world gas supplies?
- Create a T-chart with the pros and cons of selling natural gas to other countries.



Activity: Glossary

Students will brainstorm a list of key words that relate to the BTN Gas Shortage story. Here are some words to get them started.

NATURAL GAS	ENERGY	NON RENEWABLE
FOSSIL FUEL	EXPORT	ECONOMY

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KEY LEARNING

Students will develop a deeper knowledge of what natural gas is and why it's in short supply at the moment.

CURRICULUM

Geography – Year 4

The use and management of natural resources and waste, and the different views on how to do this sustainably.

Science – Year 4

Science knowledge helps people to understand the effect of their actions.

Science – Year 5 and 6

Scientific knowledge is used to solve problems and inform personal and community decisions.

Science – Year 7

Some of Earth's resources are renewable, including water that cycles through the environment, but others are non-renewable.

Activity: Fossil Fuel Research

Discuss the information raised in the BTN Gas Shortage story. What questions were raised in the discussion and what are the gaps in students' knowledge? The following KWLH organiser provides students with a framework to explore their knowledge on this topic.

What do I <u>know</u> ?	What do I <u>want</u> to know?	What have I <u>learnt</u> ?	<u>How</u> will I find out?

Students will develop their own question/s to research or choose one or more of the questions below.

- What is natural gas and how does it form?
- When and where was natural gas first discovered in Australia?
- Where in Australia are natural gas reserves? Mark on a map.
- What are fossil fuels and what are the issues with continuing fossil fuel use?
- How do living things turn into fossil fuels?
- How much of the world's energy supply comes from natural gas?
- Will we ever run out of natural gas? Why or why not?
- What is the difference between renewable and non-renewable energy? Record your responses on a Venn diagram.

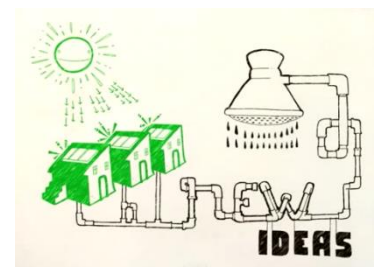
Activity: Design a Sustainable Community

Students will design a community that relies more on renewable resources. For example, redesign a community with an emphasis on pedestrians, bikes and public transport, rather than on cars. Students may create a community where we can work, go to school and shop closer to where we live, create more bike lanes, have more people living closer together so they can support public transport and create safer streets to encourage walking and riding.

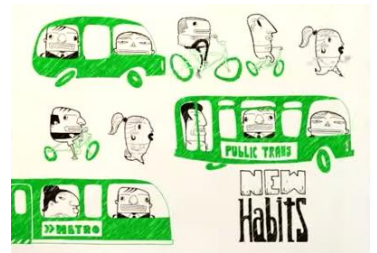


Students should consider the following:

- What renewable energies will you need to power your city?
- How can your city be more water smart? Consider including storm water harvesting technology.
- Will you build lots of little houses or a few high-density apartment buildings?
- Is your city pedestrian and cyclist friendly?
- What sort of transport will your city use?
- What recycling programs will your city have?



Watch this YouTube animation about [climate change, energy and action](#) to get inspired!



Activity: Quiz

1. Natural gas is a fossil fuel.

A. True

B. False

2. Which of these countries does Australia export natural gas to?

A. Japan

B. China

C. South Korea

D. All of the above

3. What is the main component of natural gas?

A. Hydrogen

B. Nitrogen

C. Methane

4. Natural gas is a renewable resource.

A. True

B. False

5. Which state keeps 15% of gas produced for Aussies?

A. Western Australia

B. South Australia

C. Queensland

Quiz Answers: 1A, 2D, 3C, 4B, 5A

Useful Websites

- [Federal government's 'gas trigger' to keep supplies onshore may not be pulled just to put a lid on high prices](#) – ABC News
- [Gas Bonanza](#) – BTN
- [Fossil Fuels](#) – BTN
- [Coal Explainer](#) – BTN