

Teacher Resource

Episode 25 6th September 2016

Nuclear Forum



FOCUS QUESTIONS

- 1. Before you watch the BtN story, record what you know about nuclear energy.
- 2. Briefly summarise the BtN Nuclear Forum story.
- 3. The school kids at the forum had some questions about nuclear energy. Give an example of one.
- 4. In which state are they proposing that nuclear waste be stored?
- 5. What does the State Government say about the advantage of SA storing nuclear waste?
- 6. Why are some people against the idea?
- 7. How many kids were invited to the meeting in Adelaide?
- 8. What were some of the kids' concerns?
- 9. Do you think nuclear waste should be stored in South Australia? Explain your answer.
- 10. Name three things you learnt watching the story.



ACTIVITY

Before watching the BtN *Nuclear Forum* story, ask students what they know about nuclear energy. Record their responses.

The students in the BtN story were given the opportunity to ask questions about nuclear energy, focussing on the issue of nuclear waste being stored in South Australia. What were some of the questions the students had?

Ask students to make a list of 3 questions they have about nuclear energy or the storage of nuclear waste. Use the internet to find answers to your questions. The ABC's <u>Ask an Expert</u> website may have answers to some of their questions. Students can compare their questions and answers with their classmates.

- How is nuclear energy made?
- How much of the world's energy is produced by nuclear power?
- Is it economical to make nuclear energy?
- Why is nuclear energy controversial?
- How is nuclear waste stored?



Students will investigate the issue of storage of nuclear waste in South Australia.



Science - Year 6

Scientific knowledge is used to solve problems and inform personal and community decisions (ACSHE100)

Science - Year 7

Some of Earth's resources are renewable, but others are non-renewable (ACSSU116)

Science and technology contribute to finding solutions to a range of contemporary issues; these solutions may impact on other areas of society and involve ethical considerations (ACSHE120)

Summarise <u>data</u>, from students' own investigations and secondary sources, and use scientific understanding to identify relationships and draw conclusions (ACSIS130)

Geography - Year 4

The natural resources provided by the <u>environment</u>, and different views on how they could be used sustainably







Students will investigate in more depth some questions they have about nuclear energy or the storage of nuclear waste.

Define: What do I want to know?

Key questions to research

Students can choose one or more of the following questions or come up with their own:

- How does uranium generate electricity?
- What is radiation?
- How is nuclear waste transported and stored?
- What are the safety considerations?

Locate: Where do I find the information?

What resources will help answer my questions? (Internet, people, resource centre, organisations, print). Discuss with students what a reliable source is.

Select: What information is important for the investigation?

Students may need support to sort through and select relevant information.

Organise: How do I make sense of the information?

Students can organise their research by creating main headings from their questions. Write each heading on a separate piece of paper. Record the information found for each question.

Present: How do we let others know about this information?

Each group needs to discuss then decide on the best way to present the information. Possibilities could include:

- A 'Did You Know' Facts sheet
- Create an Infographic
- A community service announcement
- Design a poster

Evaluate: What have we learnt?

Each group reflects on what they have learnt about the moon during their investigation. Students will reflect on their learning and respond to the following.

- What I learned...
- What I found surprising...



ACTIVITY

Students watch the BtN <u>Nuclear Dump story</u> to find out more about the debate about storing nuclear waste in South Australia the answer the following questions:

- 1. What is uranium?
- 2. Finish the following sentence: Nuclear waste is
- 3. What type of energy does nuclear waste release?
- 4. Why is it dangerous?
- 5. How does nuclear waste need to be stored?
- 6. In which state are they proposing that nuclear waste be stored?
- 7. What are the benefits of a nuclear waste dump?
- 8. Why are some people worried about the idea?
- 9. What do you think? Should Australia have a nuclear waste dump? Explain your answer.





What do you think?

Students use the information they have researched about nuclear energy and the storage of nuclear waste to make a recommendation about whether they think nuclear waste should be stored in South Australia. Students need to weigh up the pros and cons of the issue then write a short persuasive argument stating why nuclear waste should or should not be stored in South Australia.

Provide students with the following structure to follow help them write a persuasive text.

Structure of a persuasive text

Introduction

- What is the point you are trying to argue? Construct an introductory paragraph which states the issue or topic.
- Introduce the arguments that will be developed in the body of the text.

Body

- Construct arguments that support your point of view.
- Each paragraph starts with a topic sentence which introduces each point.
- · The rest of the paragraph gives more reasons.
- · Arguments can be ordered from strongest to weakest.

Conclusion

- Restate your position on the argument.
- Construct a concluding paragraph that provides a summary of your arguments and a call to action.





Behind the News – Nuclear Dump http://www.abc.net.au/btn/story/s4409211.htm

Behind the News – Nuclear Industry http://www.abc.net.au/btn/story/s4178056.htm

ABC News – A timeline of South Australia's nuclear dump debate http://www.abc.net.au/news/2015-09-22/a-timeline-of-south-australia's-nuclear-dump-debate/6794606

