

Unit 5.8 – Sustainable Digital Solutions



Year Group: 5
Number of
Lessons: 4



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Introduction

For these four sessions, the children will need to have their own individual logins to Purple Mash.

If you are currently using a single login per class or group and would like to set up individual logins yourself, then please see our guide to doing so at [Create and Manage Users](#). Alternatively, please email us at support@2simple.com.au, or call +61 (03) 8001 5024.

Medium-term Plan

Lesson	Aims	Success Criteria
<u>1</u>	To explore the ethics and impacts of management practices on the use of communication networks.	<ul style="list-style-type: none"> Children can produce arguments for and against government censorship of the internet.
<u>2</u>	To explore past information systems considering economic, environmental and social sustainability.	<ul style="list-style-type: none"> Children recognise different information systems used in past times by Indigenous Australians. Children can identify a local Indigenous Australian clan. Children can describe changes in information systems used by a local Indigenous Australian Clan.
<u>3</u>	To understand the opportunities and consequences of future applications of information systems	<ul style="list-style-type: none"> Children recognise the importance of conserving energy. Children understand the difference between renewable and non-renewable energy. Children understand how they can conserve energy.
<u>4</u>	To design a sustainable information system to meet a community or national need	<ul style="list-style-type: none"> Children publish a plan that extends a current information system design to meet a community need. They consider energy conservation in their design.



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Lesson 1

Aims

- To explore the ethics and impacts of management practices on the use of communication networks.

Success criteria

- Children can produce arguments for and against government censorship of the internet.

Resources

- [2Connect](#)
- [Internet Censorship Debate template](#)

Activities

1. Share the learning objectives and success criteria with the children.
- As a class, revise the definition of a 'communication network'. Brainstorm a few examples, you may wish to display these using [2Connect](#)
2. Ask Children if they think anyone regulates or censors these networks? If so who? Add student ideas to your class brainstorm.

If using 2Connect, Children can work together to brainstorm their ideas in collaboration mode. To turn on collaboration in 2connect, save the file in a shared folder such as your class' folder. Next click the green collaboration button in the menu.



3. Give Children a short period of time to investigate and discuss in pairs or small groups regulators/censorship of communication networks. Then share and discuss student findings. Where appropriate, add these findings to your class brainstorm.
4. Tell the Children that the next task relates specifically to the internet. Hand each student a sticky note. On their sticky note, Children must write whether they think the government should censor the internet. They must include one argument, if they have many, have them select the argument they believe is the strongest, that supports their answer.
5. Have Children place their sticky note on a yes/no table displayed in the class. Discuss the arguments put forward.

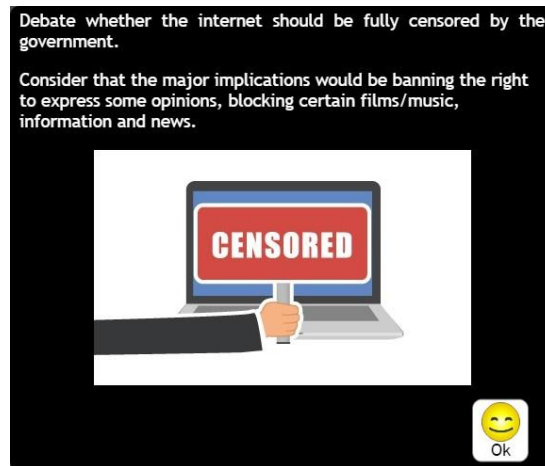
Yes	No



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6. Have Children complete the [Internet Censorship Debate template](#)



7. Display these either on your digital display board in Purple Mash or around the classroom. If time allows, divide Children into teams and hold formal debates.

Lesson 2

Aims

- To explore past information systems considering economic, environmental and social sustainability.

Success criteria

- Children recognise different information systems used in past times by Indigenous Australians.
- Children can identify a local Indigenous Australian clan.
- Children can describe changes in information systems used by a local Indigenous Australian Clan.

Resources

- [Indigenous Australian Technology publishing template](#) Remember you can edit this resource to suit the individual needs of you Children. Once you have made your changes, save the template and set as a 2do for your Children.
- The following website may assist to find Indigenous Australian clans in your local area.
<https://aiatsis.gov.au/explore/articles/aiatsis-map-indigenous-australia>
- [2connect](#)

Activities

1. Review the learning from the previous session. Share the learning objectives and success criteria.
- Reflect on the previous lesson and ask Children to consider a time before the democratic society we live in today. Ask them to consider a time prior to white settlement in Australia. What systems would have been used for communication, food production and delivery? Give Children some thinking time before creating a brainstorm of ideas. For additional stimulus, you may wish to pass around some images of past systems found in [Appendix 1](#) or give Children a short period of time to research online, using their effective searching skills developed in [Unit 4.7](#). You may wish to create a [2Connect](#) to present ideas discussed.
 - Discuss the names of Indigenous Australian clans who lived in your local area. This site may assist you in finding such clans <https://aiatsis.gov.au/explore/articles/aiatsis-map-indigenous-australia>
 - Children then complete the [Indigenous Australian Technology publishing template](#). You may wish to spend some time revising [effective searching](#) techniques as Children will need to do some research in order to complete the template.



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Lesson 3

Aims

- To explore past information systems considering economic, environmental and social sustainability

Success criteria

- Children recognise the importance of conserving energy.
- Children understand the difference between renewable and non-renewable energy.
- Children understand how they can conserve energy.

Resources

- [Different types of energy game](#)
- Renewable and non-renewable [sorting activity](#)
- [Conserving Resources Poster](#)
- [2Connect](#).

Activities

1. Review the learning from the previous session. Share the learning objectives and success criteria.
2. Reflect on the previous lesson and discuss the progression from past to current and future information systems. Focus on the increasing reliance on energy. Have Children complete two energy related games in pairs, small groups or if preferred, as a class.

- [Different types of energy game](#)



- Renewable and non-renewable [sorting activity](#)



3. As a class, brainstorm ideas to conserve energy. You may wish to display this using [2Connect](#).
4. Children then complete their own [Conserving Resources Poster](#)



5. Ask the children to share their posters to a class blog. Set up your blog to allow Children to contribute to discussions about each other's work. For support to set up your class blog, please see the [2blog user guide](#).

Lesson 4

Aims

- To design a sustainable information system to meet a community or national need

Success criteria

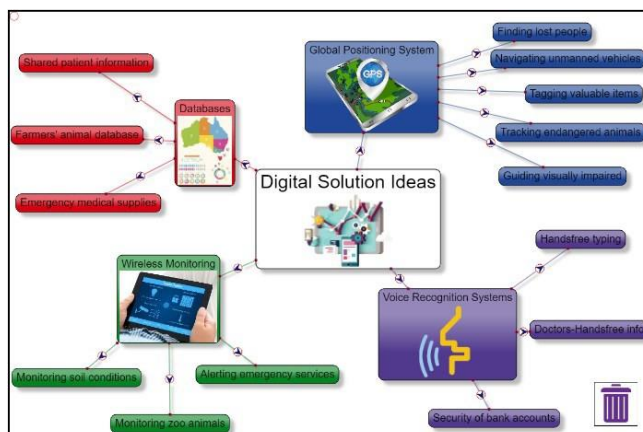
- Children publish a plan that extends a current information system design to meet a community need. They consider energy conservation in their design.

Resources

- [Digital solution ideas](#)
- Children choose a way to publish their plan and design using [2Publish Plus](#). If you would like to choose the template for Children, you can then customise the template with assessment criteria, think about prompts, writing prompts and a glossary. Once complete, you can set your customised template as a 2do for your Children.

Activities

- Review the learning from the previous session. Share the learning objectives and success criteria.
- Reflect on previous lessons in this unit of work. Revise the brainstorm/concept maps created along the way.
- Show Children the 2connect concept map about Digital Solutions.



Can we rethink and improve current digital systems to meet our needs today, and into the future, in a more sustainable way? Consider factors such as securing personal data, reducing the need to print (use of QR codes) and other influences that contribute to future sustainability.

- Taking the design of a current digital system, Children then plan to adjust and improve the system to suit a community need in a sustainable manner. They choose from a publishing template in [2Publish Plus](#) to present their ideas or complete the template you've set for them as 2do.
- Share student ideas to your class notice board. You may wish to send the link/QR code to your notice board home and invite parents to discuss student ideas with their children.



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Appendix 1



Assessment Guidance

The unit overview for Year 5 contains details of the Australian and Victorian Curricula mapped to the Purple Mash Units. The following information is an exemplar of what a child at an expected level would be able to demonstrate when completing this unit with additional exemplars to demonstrate how this would vary for a child with emerging or exceeding achievements.

Assessment Guidance	
Emerging	<p>Working with others, children can produce arguments for and against government censorship of the internet. (Lesson 1).</p> <p>Children has been exposed to different information systems used in past times by Indigenous Australians and local Indigenous Australian clans. Children have explored information systems used by a local Indigenous Australian Clan (Lesson 2)</p> <p>Children have an awareness of the importance of conserving energy. Children have explored both renewable and non-renewable energy and have an awareness how they can conserve energy. (Lesson 3) With support, children publish a plan that extends a current information system design to meet a community need. They consider energy conservation in their design. (Lesson 4)</p>
Expected	<p>Children can produce arguments for and against government censorship of the internet. (Lesson 1)</p> <p>Children recognise different information systems used in past times by Indigenous Australians. Children can identify a local Indigenous Australian clan. Children can describe changes in information systems used by a local Indigenous Australian Clan (Lesson 2)</p> <p>Children recognise the importance of conserving energy. Children understand the difference between renewable and non-renewable energy. Children understand how they can conserve energy. (Lesson 3)</p> <p>Children publish a plan that extends a current information system design to meet a community need. They consider energy conservation in their design. (Lesson 4)</p>
Exceeding	<p>Children can produce extensive and detailed arguments for and against government censorship of the internet. (Lesson 1)</p> <p>Children easily recognise different information systems used in past times by Indigenous Australians. Children identify local Indigenous Australian clans and describe changes in information systems used by local Indigenous Australian Clans (Lesson 2)</p> <p>Children recognise the importance of conserving energy and have a clear understanding of the difference between renewable and non-renewable energy. Children understand and communicate how to conserve energy. (Lesson 3)</p> <p>Children use their comprehensive understanding of information systems to design extensions to current information system designs that are used to meet community needs. They consider all considerations in their designs including energy conservation. (Lesson 4)</p>



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