

Australia is connected to the world by cables no thicker than a garden hose – and at risk from sharks, accidents and sabotage

Level 3: Advanced

Article summary: This article talks about how much the internet relies on cables and how vulnerable those cables are, using Australia as an example.

Time: 60 minutes

Skills: Reading, Speaking, Writing

Language focus: Metaphorical phrases

Materials needed: One copy of the worksheet per student

1. Warmer

- a. This activity aims to make students aware of how easy it could be to 'disconnect' a country from the rest of the world. Encourage students to think about how countries are connected (satellites, physical cables). Ask them to consider how those connections would be broken. Have them read the lesson title and imagine how thick a garden hose is and how easy it might be to cut it. End by discussing the possible effect of cutting that connection.

2. Key words

- a. Ask students to do this task individually and then compare their answers in pairs or small groups. As an extension activity, ask students to highlight the key words in the article and then think of their own example sentences for each word.

Key:

- | | |
|-------------------|-------------------|
| 1. vulnerable | 11. dredge |
| 2. sabotage | 12. anchor |
| 3. immune | 13. statecraft |
| 4. infrastructure | 14. resilience |
| 5. backbone | 15. engagement |
| 6. bandwidth | 16. choke point |
| 7. catastrophe | 17. espionage |
| 8. murky | 18. ramifications |
| 9. geopolitical | 19. reliant |
| 10. reinforce | 20. ferry |

3. Comprehension check

- a. If possible, encourage the students to add more explanatory information when they answer, e.g. in item 1, they may say, 'There are 15 cables connecting Australia to the internet and the main landing stations are in Sydney and Perth' or similar.

Key:

Suggested answers:

1. *There are roughly 15 cables connecting Australia to the internet.*
2. *Each cable is as thick as a garden hose (typically 12.55 mm diameter).*
3. *The cables are under threat from sabotage, accidents, hacking and sharks.*
4. *99 per cent of Australia's data travels through these cables.*
5. *The cables are the backbone because they provide almost all the connections (99 per cent) and are the only way to get a high bandwidth (necessary for video).*
6. *They are discrete areas where a lot of data can be accessed.*
7. *Finland, Germany, Sweden, Lithuania, Tasmania and Tonga all had damaged cables.*
8. *The new cables belong to telecommunications companies and Amazon, Meta and Google.*
9. *It is difficult to know if cables are deliberately damaged because they are on the bottom of the sea floor.*
10. *Doesn't say but probably not—the article talks about all the dangers and none of the protections mentioned are considered effective.*

4. Key language

- a. This activity helps students look at metaphoric language. Metaphors make a piece of writing more dramatic and provide shared images for the writer and the audience. The article uses a number of phrases which are metaphors for water. As an extension activity, ask students to look for the examples of metaphor in the article and ask them why water is an important metaphor in this article (because it is about water-based cables).

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Key:

1. *c*
2. *d*
3. *b*
4. *e*
5. *a*

- b. Students classify the metaphors into those that are about water and those that are not about water.

Key:

1. *W*
2. *W*
3. *NW*
4. *W*
5. *W*
6. *W*
7. *W*
8. *NW*

- c. Students write three personalised sentences using three of the metaphors. Invite students to challenge themselves and not write sentences that are similar to the ones provided. Save some time for students to share examples of their work.

5. Discussion

- a. Students discuss the statements related to the article and give their reasons and justifications for each answer, referring to their own experiences wherever possible.

6. In your own words

- a. Ask students to think about the advantages and disadvantages of underwater cabling. If possible, have students research more information about what underwater cables allow us to do and how vulnerable they are. Ask them to consider how dependent modern life is on the internet and what effect removing the internet would have on them personally and on society at large. Have them think about how realistic it is to protect the cables that connect us to the internet.
- b. Ask students to read the imaginary post from a member of the government of an island country. The post talks about taking money away from protecting an old way of life (life by the water) and investing in a new life (a technological life in the city). Encourage students to think about how dependent that modern, technological life is on protecting ocean-based cables. Ask them to write a reply to the post in which they convince the government of the importance of protecting underwater cables.

Encourage students to write in a dramatic style that persuades readers to pay attention to possible dangers and the consequences of not protecting the cables. Remind students that the use of metaphors is a good way to write dramatically.

Also, tell students that they can use the phrases provided to help them. The phrases are for when someone has not realised something important and also for describing effects and consequences.