

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

### Level 2: Intermediate

#### 1 Warmer

a. Discuss these questions.

1. What do you know about Australia?
2. What is the geographical location of Australia, e.g. how far away is it from other continents?
3. What are some advantages and disadvantages of being a remote island nation or a country surrounded by water like Australia?
4. What other countries are island nations? How is their situation different or similar to Australia's?

#### 2 Key words

a. Read the definitions and use the words from the wordpool to complete the sentences. Then find and highlight them in the article to read them in context.

anchor	cease to exist	engagement	infrastructure	sabotage
backbone	disrupt	geopolitical	reinforce	statecraft
bandwidth	dredge	immune	resilience	vulnerable

1. when something is easy to hurt physically or emotionally  
*She's more \_\_\_\_\_ now because of the accident.*
2. to damage or destroy something so that your enemy can't use it  
*Enemy forces tried to \_\_\_\_\_ the roads and bridges to stop us from entering the town.*
3. not affected by a particular activity or type of behaviour  
*It doesn't matter how protected your computer is: no one is \_\_\_\_\_ from attack.*
4. the important systems (e.g. transport and communication) of a country  
*With the population increasing, the government needs to invest in its \_\_\_\_\_.*
5. the main or strongest part of something  
*Electronics is still the \_\_\_\_\_ of Silicon Valley.*
6. the amount of information per second that can move along a wire between computers  
*Sorry, but if you want to watch videos, you need much better internet \_\_\_\_\_.*

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7. When something stops being present and comes to an end

*Farming in the US really depends on government money. Without it, farming would \_\_\_\_\_.*

8. to stop something from continuing as it should

*Those two students often \_\_\_\_\_ the class with their jokes and their silly behaviour.*

9. describes the political and economic relationships between countries based on each country's size and power

*Recent \_\_\_\_\_ tensions have caused concerns about the price of crude oil.*

10. to make an object stronger than it currently is

*The security expert told me to \_\_\_\_\_ my wooden door with a section of metal.*

11. to collect animals or objects from the bottom of a river, lake or sea

*People who fish for oysters and other seafood often \_\_\_\_\_ the bottom of the ocean.*

12. a heavy, metal object that a boat drops into the water to stop it from moving

*The captain ordered us to drop the \_\_\_\_\_, so we had time to repair the boat.*

13. the skill of running a country and working with other countries

*The president showed some amazing \_\_\_\_\_ when she negotiated that deal with China.*

14. the strength needed to get better quickly after damage or illness

*The government is confident about the \_\_\_\_\_ of the economy despite recent problems.*

15. being involved with a thing or group and feeling connected to it

*These business ideas will only work with real \_\_\_\_\_ from the community.*

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*Last month two Baltic Sea cables were damaged, and experts say Australia's cables are not immune from threats. How worried should we be?*

**Tory Shepherd**  
**1 December, 2024**

- 1 More than 1 million kilometres of cables lie across the world's ocean floor, moving data between distant lands. Fibre-optic filaments send emails, Netflix and military secrets through deep water, where the cord – about as thick as a garden hose – collects seaweed. Australia is connected to 15 of them (that we know of), with the main landing stations in Sydney and Perth. And they're vulnerable to sabotage and accidents, to hacking and (very occasionally) sharks.
- 2 Last month, two cables in the Baltic Sea – one connecting Finland and Germany, the other connecting Sweden and Lithuania – were damaged in a suspected sabotage attack. And experts say Australia's own cables are not immune from threats. Despite the promises of satellite technology, and despite the difficulty of building infrastructure thousands of metres beneath the surface, these cables still carry 99 percent of Australia's data.
- 3 The maritime security expert Sam Bashfield is a research fellow at the University of Melbourne's Australia India Institute. He says satellites are critical for remote areas, war zones and some backup, but the "backbone" of the internet are cables. "We see this huge increase in demand for bandwidth ... even though we see satellite technology improving," he says. "The global demand for data is also increasing at this crazy rate, so it still requires these submarine cables."
- 4 "Without them, the internet as we know it would cease to exist," Cynthia Mehboob, who is doing her PhD on the politics of undersea cables, says. Mehboob, who is in the Australian National University's international relations department, says Australia's reliance on the cables will only grow. "Disrupting these cables would have a very serious geopolitical impact on Australian security."
- 5 In 2014, Google announced it was reinforcing cables with a Kevlar-like substance after a series of shark bites. A widely shared video showed a shark wrapping its teeth around a cable briefly before swimming off.
- 6 But that's not the biggest threat. Bashfield says fish bites are only responsible for 0.1 per cent of damage. It's fishing incidents that are far more common. Dredging, nets and trawlers can do damage, and anchors dragged over the cables can destroy them. Then there are geological events, such as underwater landslides or volcanoes.
- 7 "That's the unintentional damage," he says. "Then you get into statecraft ... the intentional stuff, this cutting of cables, they're intentionally sabotaged as an act of war or in a grey zone conflict."
- 8 When two of the three cables connecting Tasmania to the mainland were accidentally cut on the same day in March 2022, it gave an idea of the disruption that can occur. Tonga, which has only one cable connecting it to the rest of the world, spent weeks without the internet this year.
- 9 Last week, Google Cloud revealed its Australia Connect project. New cables will connect Australia with Christmas Island and Fiji, where other connections go on to Singapore and the US. Australia has also announced it will spend 18 million US dollars over four years on a cable connectivity and resilience centre to improve engagement in the region. But it doesn't own the cables – they're owned by telecommunications companies and increasingly the "hyperscalers", including Amazon, Meta and Google.
- 10 Mehboob says while Australia has cable protection zones, even flagging them makes it clear to potential bad actors exactly where the cables are. And there's no easy way to work out if damage has been done intentionally. "It's a tricky attribution space," she says. "Identifying intentional sabotage on the sea bed has always been a challenge. It makes things a lot more murky."

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### 3 Comprehension check

a. Answer the questions using information from the article.

1. Roughly how many cables connect Australia to the internet?
2. How thick is each cable?
3. What are the different threats for the cables?
4. How much of Australia's data travels through these cables?
5. In what way are cables the 'backbone' of the internet?
6. Which represents a bigger danger for the cables: sharks or boats?
7. Which country lost its connection to the internet because of a cable?
8. Who will the new 18-million-dollar cables belong to?
9. Why is it difficult to know if cables are deliberately damaged?
10. In the opinion of the author, will these cables have a safe future?

### 4 Key language

a. Complete the sentences from the article using the passive form of the verbs from the wordpool.

connect

cut

damage

own

sabotage

1. Australia is \_\_\_\_\_ to 15 cables.
2. Two cables in the Baltic Sea were \_\_\_\_\_ in a suspected sabotage attack.
3. The cables were intentionally \_\_\_\_\_ as an act of war.
4. Cables connecting Tasmania to the mainland were accidentally \_\_\_\_\_.
5. The cables are \_\_\_\_\_ by telecommunication companies.

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**b. Complete the sentences using the verbs from the previous activity.**

1. It's a fantastic car, but it isn't mine; it is \_\_\_\_\_ by my company.
2. The computer is \_\_\_\_\_ to two different monitors.
3. The road across the mountains was \_\_\_\_\_ to prevent the army from attacking.
4. Once the cake was \_\_\_\_\_ into ten equal pieces, she gave a piece each to the kids.
5. The furniture was \_\_\_\_\_ by the smoke from the fire.

**c. Write three personalised sentences using three of the verbs from the previous activity.**

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_

**5 Discussion**

**a. Discuss these statements.**

- 'No country can completely protect itself from attack'.
- 'All technologies, even the most impressive, are physically vulnerable'.
- 'Countries should avoid having physical connections to the internet'.

**6 In your own words**

**a. List the advantages and disadvantages of underwater cabling. Consider how dependent modern life is on the internet. Use these questions to guide your ideas.**

- Is your house connected to the internet via a cable or via satellite?
- Why is bandwidth important for using the internet?
- What type of information is dependent on high-speed internet connection?
- Why do you think the military and other big industries need high-speed internet connections?
- How much of what society does every day uses the internet?

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- How long could you survive without using the internet?
- How long could our society survive without using the internet?
- What do you imagine protects underwater cabling?
- How much of the ocean can a country expect to be able to protect?

b. Below is a recent post from a member of the government of an island country (e.g. the UK, Japan, etc.). Read the post and write a response that convinces them of the importance of protecting underwater cables. Outline the dangers that exist and the consequences of not protecting the cables. Under the post are some phrases to help you.

As more people start new lives in our major cities, we must increase investment in city life and stop wasting money on protecting a life we no longer have.

We have evolved; we have moved out of the water and walked into a brighter technological future.

- *has failed to consider ...*
- *has not taken into account ...*
- *has not realised ...*
- *has not appreciated ...*
- *It must be pointed out that ...*
- *It is important to remember that ...*
- *The effect of this is ...*
- *The consequence of this is ...*