

national science week 2026



An Australian Government Initiative



BRAIN BREAKS 2026

LOWER
PRIMARY
(P-YEAR 3)

QUESTION 1

Which part of a plant helps it make food using sunlight?

- A** Roots
 - B** Stem
 - C** Leaves
 - D** Flowers
-

QUESTION 2

How long have First Nations peoples lived in Australia?

- A** 1,000–5,000 years
 - B** 10,000–20,000 years
 - C** 20,000–40,000 years
 - D** More than 65,000 years
-

QUESTION 3

About how fast does a human fart travel?

- A** 50 metres per second (m/s) (the length of an Olympic swimming pool in a second)
 - B** 10 m/s (the length of a school bus in a second)
 - C** 5 m/s (the length of a big crocodile in a second)
 - D** 0.1 m/s (the width of a sheet of toilet paper in a second)
-

QUESTION 4

What makes common wombat poos unique compared with any other species in the world?

- A** They are dark blue
 - B** They are cube-shaped
 - C** They have an extremely high water content
 - D** They have a special scent that attracts scavenger birds
-

QUESTION 5

What was the largest dinosaur to have ever roamed the Earth?

- A** Tyrannosaurus rex
 - B** Patagotitan
 - C** Triceratops
 - D** Giganotosaurus
-

QUESTION 6

When baby turtles hatch from their eggs, they immediately make their way to the ocean. How do they know which way to go?

- A** The sound of the waves
- B** The smell of the seawater
- C** The reflections of the Moon and stars on the water
- D** The vibrations of the ocean currents



QUESTION 7

Are fluffy clouds that hang low in the sky, or wispy clouds that sit high in the sky, more likely to make rain?

Fluffy clouds Wispy clouds

QUESTION 8

True or False: Cats and dogs can be left or right pawed, like humans can be left or right-handed.

True False

QUESTION 9

Emu eggs are an important bush tucker food for many First Nations Australians. One emu egg is about the same size as how many chicken eggs?

- A 1 chicken egg
 - B 5 chicken eggs
 - C 10 chicken eggs
 - D 100 chicken eggs
-

QUESTION 10

A Woomera is an Australian First Nations invention that has many different uses. They look like long sticks (sometimes flattened) with a hook at the end. Why are Woomeras often used with spears?

- A They help throw spears more quietly
 - B They help throw spears further
 - C They allow the spear to be thrown backwards
 - D They make the spear come back, like a boomerang
-

QUESTION 11

If you put honey in the fridge, would it become thicker or runnier than honey left on the bench?

Thicker Runnier

QUESTION 12

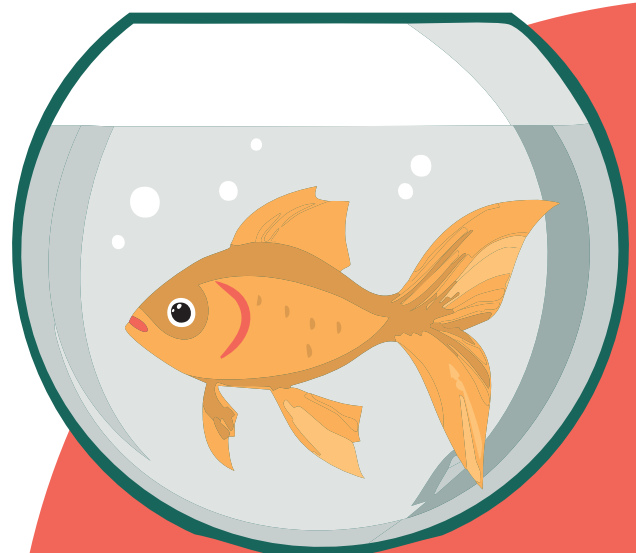
Why is yeast important when making bread, or pizza dough?

- A It makes it taste yummy
 - B It helps make the dough stretchy
 - C It helps the bread go brown on top when cooked
 - D It releases gas, which makes the bread light and fluffy
-

QUESTION 13

There's a common saying about people who forget things easily: that they 'have the memory of a goldfish.' How long is a goldfish's memory?

- A 3 seconds
 - B A couple of minutes
 - C A few weeks
 - D Several months
-



QUESTION 14

What is the strongest animal in the world relative to its size?

- A** Wedge-tailed eagle
 - B** African bush elephant
 - C** Musk ox
 - D** Dung beetle
-

QUESTION 15

What do comets smell like?

- A** Rotten eggs
 - B** Urine
 - C** Burning matches
 - D** All of the above
-

QUESTION 16

Why aren't LEGO bricks used to build full-size buildings?

- A** They're too weak
 - B** They're too expensive
 - C** They're too colourful
 - D** They'd take too long to build
-

QUESTION 17

Which of these would be most likely to float in a bucket of water?

- A** A marble
 - B** A coin
 - C** An apple
 - D** A metal teaspoon
-

QUESTION 18

Can astronauts burp in space?

- A** Yes, astronauts can burp in space, exactly like we do on Earth
- B** No, astronauts can't burp in space (at least, not like we do on Earth)

QUESTION 19

If you are unlucky, you may have stood on a bindii while running barefoot on the grass. Why does having spiky seeds help the bindii plant?

- A** It stops animals eating them
 - B** It helps them cling to animal fur to travel and grow plants in new places
 - C** It makes the seeds last a long time
 - D** It makes it hard for people to remove the plants from their yards
-

QUESTION 20

How does a phone or tablet sense where you touch its screen?

- A** It senses the warmth of your finger
- B** It senses tiny electrical signals from your finger
- C** It sees your finger with a camera
- D** It has secret buttons under the screen



Answers

QUESTION 1

Answer: C Leaves

Leaves contain a substance that enables plants to use sunlight (with the help of water and gases in the air) to make their own food so they can grow. This substance is called chlorophyll (pronounced clor-o-fill) and the process of making food is called photosynthesis (pronounced photo-sin-thi-sis).

MORE INFORMATION

- <https://education.nationalgeographic.org/resource/photosynthesis/>
- <https://ssec.si.edu/stemvisions-blog/what-photosynthesis>

QUESTION 2

Answer: D More than 65,000 years.

As the first scientists and innovators of this land, Aboriginal and Torres Strait Islander peoples have cared for Country in Australia for at least 65,000 years.

MORE INFORMATION

- <https://www.nma.gov.au/defining-moments/resources/evidence-of-first-peoples>

QUESTION 3

Answer: D 0.1 m/s (the width of a sheet of toilet paper in a second).

Farts travel at a speed of about 0.1 m/s (which is 10 centimetres, or the width of a sheet of toilet paper, per second), but they can go as fast as 3 m/s, depending on the surrounding flow of air. For example, if you're near an open window, or if it is windy – no pun intended!

MORE INFORMATION

- <https://www.youtube.com/watch?v=R9OORrQ0N5g>
- <https://www.houstonmethodist.org/blog/articles/2020/oct/flatulence-everything-you-wanted-to-know-about-farting/>

QUESTION 4

Answer: B They are cube-shaped.

Wombats poo up to 100 cube-shaped droppings per night. They often create 'poo castles' on high points, including on top of rocks and logs, to help mark their territory.

MORE INFORMATION

- <https://www.abc.net.au/news/2019-09-14/wombat-faeces-cube-shaped-because-of-intestines-scientists-learn/11510952>
- <https://www.bbc.com/news/world-australia-46258616>
- <https://news.uga.edu/why-do-wombats-have-square-poop/>
- <https://www.science.org/content/article/how-do-wombats-poop-cubes-scientists-get-bottom-mystery>

Answers

QUESTION 5

Answer: B Patagotitan.

The Patagotitan is thought to be the largest dinosaur ever to have lived. With a long neck, small head, and barrel-shaped torso, the Patagotitan was up to 37.5 m long and weighed up to 57 tonnes! While there are other contenders for the world's largest dinosaur, including the Argentinosaurus and Puertasaurus, scientists haven't found enough fossil material for these dinosaurs to confidently estimate their size.

MORE INFORMATION

- <https://www.nhm.ac.uk/discover/dino-directory/patagotitan.html>
- <https://theconversation.com/curious-kids-what-was-the-biggest-dinosaur-that-ever-lived-250885>

QUESTION 6

Answer: C The reflections of the Moon and stars on the water.

Baby turtles move toward the brightest horizon, which is usually the reflection of the Moon and stars on the water. The downward slope of the beach also helps them find their way safely to the sea, even on nights with no Moon.

MORE INFORMATION

- <https://oceanservice.noaa.gov/facts/turtle-hatch.html#:~:text=In%20some%20areas%2C%20these%20events,%2C%20raccoons%2C%20and%20wild%20dogs>
- https://www.nature.com/scitable/blog/saltwater-science/three_steps_to_success_how/
- <https://oceanservice.noaa.gov/facts/temperature-dependent.html>

QUESTION 7

Answer: Fluffy clouds.

Their proper name is stratocumulus clouds (pronounced stra-toe-cum-you-lus). Sometimes they can also make hail or snow!

MORE INFORMATION

- <https://education.nationalgeographic.org/resource/cloud/>

QUESTION 8

Answer: True.

Cats and dogs can have a favoured paw – just like we have a favourite hand. Scientists even found that male cats and dogs usually prefer their left paw, while females prefer their right paw. You can test your own pet by putting a treat in a toilet roll tube and seeing which paw they use to retrieve it!

MORE INFORMATION

- <https://www.sciencefocus.com/nature/this-simple-test-will-reveal-if-your-pet-is-left-or-right-pawed>
- <https://www.qub.ac.uk/News/Allnews/2018/Queensresearchersdiscoverthatfemalecatsaremorelikelytoberight-handed.html#:~:text=In%20all%20cases%2C%20male%20cats,to%20have%20a%20side%20preference.>

QUESTION 9

Answer: C 10 chicken eggs.

An emu egg weighs about 600 grams – that's roughly equal to the weight of 8–10 chicken eggs!

MORE INFORMATION

- <https://www.sbs.com.au/food/article/did-you-know-emu-eggs-are-a-nutritious-chef-approved-ingredient-with-a-deep-indigenous-connection/ptzih9fh2>
- <https://www.abc.net.au/news/2023-09-21/taste-like-chicken-eggs-why-emu-eggs-are-becoming-more-popular/102860064>

Answers

QUESTION 10

Answer: B They help throw spears further.

A Woomera acts like an extension of the hunter's arm, allowing them to throw the spear further, faster and with more force.

MORE INFORMATION

- <https://www.facebook.com/watch/?v=403384310246994>
 - https://deadlystory.com/page/culture/Life_Lore/Science/Tools_Technology
 - <https://www.australiangeographic.com.au/history-culture/2015/03/aboriginal-australian-inventions/>
-

QUESTION 11

Answer: Thicker.

Honey gets thicker if it is cooled down, and thinner or runnier if you heat it up (for example, put it in the microwave). Lots of fluids change their thickness (or viscosity) based on their temperature. Some fluids, like cornflour slime, change their thickness when a force is applied, for example, by mixing them quickly, or even punching them!

MORE INFORMATION

- <https://streetscience.com.au/what-is-viscosity/>
-

QUESTION 12

Answer: D It releases gas, which makes the bread light and fluffy.

Did you know yeast is alive? Yeast is made of super tiny living things that are a type of fungus (so they are distantly related to mushrooms). When yeast is in a warm, moist environment (like a mixture of flour and water), they eat sugars and produce carbon dioxide gas, the same gas made in bicarb soda and vinegar volcanoes. This gas makes tiny bubbles inside bread or pizza dough, that make it rise.

MORE INFORMATION

- <https://www.snexplores.org/article/scientists-say-yeast>
 - <https://kidsdiscover.com/teacherresources/science-of-yeast-for-kids/?srsltid=AfmBOorT0egCUR7K4dhFgR01qgizqj0tyKm8Y2KX02Jpq8vtHlOymJei>
-

QUESTION 13

Answer: D Several months.

Despite the common myth that goldfish have a 3-second memory, some studies have found that goldfish can remember things for as long as 6 months!

MORE INFORMATION

- <https://www.amnh.org/learn-teach/curriculum-collections/young-naturalist-awards/goldfish-as-a-model-for-understanding-learning-and-memory-more-complex-than-you-think>
- <https://www.ripleys.com/stories/goldfish-memory>
- <https://www.discoverwildlife.com/animal-facts/fish/goldfish-memory>

Answers

QUESTION 14

Answer: D Dung beetle.

A dung beetle can lift over a thousand times its own body weight. Even though they weigh just 2 grams on average, some dung beetles have been measured pushing up to 20 kg! In terms of brute strength, African bush elephants win the competition, capable of lifting several tonnes.

MORE INFORMATION

- <https://www.sciencefocus.com/nature/strongest-animals-in-the-world>
- <https://www.discoverwildlife.com/animal-facts/strongest-animals-world>

QUESTION 15

Answer: D All of the above.

Comets smell like a combination of rotten eggs, urine, burning matches (and also almonds) because they contain traces of chemicals such as hydrogen sulfide, ammonia, sulfur dioxide, and hydrogen cyanide.

MORE INFORMATION

- <https://www.sciencefocus.com/space/what-does-a-comet-smell-like>

QUESTION 16

Answer: B They're too expensive.

LEGO bricks are surprisingly strong under pressure, but too expensive to use for full-size buildings. Building real buildings out of LEGO would cost millions of dollars for the bricks alone!

MORE INFORMATION

- <https://www.sciencefocus.com/science/why-arent-large-lego-bricks-used-to-build-full-size-buildings>
- <https://www.bbc.com/news/technology-18643491>

QUESTION 17

Answer: C An apple.

Density is one of the reasons things float or sink. Everything in the world, including water, is made up of tiny particles. In every kind of material, those particles can be more or less packed together. If a material is more tightly packed with particles, it's more dense. If it is less packed, it's less dense. Things that are denser than water will sink in water, and things that are less dense than water will float. Even though they are very juicy, up to one-quarter of an apple is made of air, which is not very dense. This helps the apple to float.

Perhaps surprisingly, a can of Coke will sink in water, but a can of Diet Coke won't sink. The sugar in regular coke makes it more dense than water.

MORE INFORMATION

- <https://www.uaf.edu/museum/education/kids-families/hands-on-programs/virtualearlyexplorers/pdfs/Sink-Or-Float-Activity.pdf>

QUESTION 18

Answer: B No, astronauts can't burp in space (at least, not like we do on Earth).

On Earth, gravity helps gas rise to the top of your stomach so you can burp. In space, there is no gravity, so everything in your stomach floats around and mixes together. This means if an astronaut tries to burp, they can bring up a bit of food and liquid too – a bit like throwing up in your mouth. Not very pleasant!

MORE INFORMATION

- <https://www.spacecentre.co.uk/news/space-now-blog/grossology/>

Answers

QUESTION 19

Answer: B It helps them cling to animal fur to travel and grow plants in new places.

Spiky seeds are an example of an adaptation that helps bindii plants survive and thrive. Other plants have different adaptations to help spread their seeds. Some seeds are shaped like a wing or helicopter, to help them fly on the wind!

MORE INFORMATION

- <https://weeds.org.au/profiles/caltrop-cat-head/>
- https://www.bbg.org/article/learn_how_seeds_travel_and_design_your_own_seed_activity

QUESTION 20

Answer: B It senses tiny electrical signals from your finger.

Your body carries tiny electrical signals. When you touch a screen, it senses these signals and knows exactly where you touched.

MORE INFORMATION

- <https://www.iop.org/explore-physics/physics-around-you/technology-our-lives/touchscreen>
- <https://www.bbc.com/reel/video/p0lv0hqk/watch>



Thanks for joining tens of thousands of people across Australia in completing a Brain Break! Brain Breaks are just one way to celebrate National Science Week. Held annually in August, National Science Week is Australia's largest science festival. Over 3 million people participate in 2,500+ events around the country to celebrate all things science.

Find more events near you by visiting:
scienceweek.net.au

We'd love to hear your feedback on these questions! Share your thoughts with us:

E scienceweek@questacon.edu.au
P 02 6270 9749

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