

## No way! What animals do that?



Today we have a few scenarios to share with you. We'll be doing lots of thinking, and we'll be hearing from some other children too.

Are you comfortable? Let's get started.

I want you to think of as many Australian animals as you can.



**Arabella:** Emu

**Shaun:** Wombat

That's a good start.



*Now I'm going to give you 10 seconds to see how many Australian animals you can think of.*

Thanks for that. What you were doing was thinking of examples of Australian animals.



*So ... what's the point of thinking of examples? What good are they?*

Here's a scenario to help us think about it.

Asha has been invited to a friend's party. Asha's dad asks what the friend might like for a present.

**Asha:** Oh, she likes making miniature scenes. So anything she can use to set up a scene.

**Asha's Dad:** Like what?

**Asha:** Oh, little plastic animals or plants or toy cars... or little plastic people – stuff like that.

**Asha's Dad:** Okay. I think I know what you mean now.



*What were the examples of things that Asha suggested her dad might get as a present for her friend?*

That's right, Asha told her Dad that she might like little plastic miniature animals, or plants, or toy cars, or little plastic people.



*How did giving these examples help Asha's dad understand what she was talking about?*

Let's see what some other children are thinking...



**Arabella:** Examples help you explain things to someone.

**Shaun:** It's like showing them what you mean.

Okay, let's think about another scenario...

Sam wants to join the local soccer team that plays on Saturdays, but her parents say it will be too hard to get her to games every Saturday.

**Sam's dad:** You know we work most Saturdays. You need to pick a sport that some of your friends play, so that all the parents can take turns in taking you to the sports grounds.

**Sam:** I have lots of friends who play soccer on Saturdays.

**Sam's mum:** Really, who?

**Sam:** Lots of kids – like Simon, and Tam ... and Mishi



*What are the examples that Sam gives her parents ...and how did giving these examples help Sam?*



**Arabella:** The examples were her friends that play soccer.

**Shaun:** And...showed her parents that she was right.

**Arabella:** When Sam gave examples, it made her reason stronger. She could name her friends, so it must have been true.

So, examples can help you ...explain what you mean, and can make your reason stronger by showing that it is correct

Let's think about this example...

Darma knows a lot about fish. He has a salt-water aquarium - just like the sea - and through the glass you can see bright yellow Dottybacks and beautiful blue and yellow Damselfish.

Today Darma is showing his friend, Mac, how he feeds the fish. He sprinkles some flakes on top of the water and, very quickly, all the fish swim up to the surface, open their mouths very wide and gulp down the food - together with lots of water.

They both watch without saying much.

**Mac:** This sounds like a silly question - I've never really thought about it much - but... how do fish breathe?

**Darma:** It's not silly. It's a good question. I had to ask it too. Water has oxygen in it, just like the air we breathe, and fish have gills that take oxygen from the water, just like our lungs take oxygen from the air. It's cool.

**Mac:** Wow! So things that live on land get their oxygen from the air and things that live in the sea get their oxygen from water.

**Darma:** Kind of. But some things that live in the sea breathe air just like we do.

**Mac:** No way! That can't be right. What animals do that?



*Can you answer Mac's question?*



**Shaun:** Turtles can do that.

**Arabella:** And dolphins too.



*So if Darma had given those examples to Mac, how would that have helped?*



**Arabella:** Well, Mac said that it was impossible for an animal to live in the sea and breathe air, but if Darma had given examples of animals that can do that, that would show Mac that it was possible.

**Shaun:** So the examples would prove that what Mac had said was incorrect.



*Do you know what we call an example that shows that what someone has said is incorrect?*



**Shaun:** It's called a counter-example.

That's right.

Here's another scenario.

Rennie lives in the country, close to a beautiful National Park. Rennie's cousin Elsa has come to stay for the school holidays like she always does, and today Rennie's dad is taking them for a picnic in their favourite part of the park. It's near the creek, where the ancient gum trees grow. Some of them have been there for over 300 years. And there are so many birds. They all make their nests in the trees. They've been doing that for a long time.

To get to this part of the park you have to walk for about 10 minutes along a rough path and, just before they arrive at the spot, Elsa almost trips over something on the ground.

**Elsa:** Look! An old bird's nest - it must have fallen out of a tree. It's so big!

**Rennie:** That doesn't look like a bird's nest. Some other creature must have made it.

**Elsa:** No way! No other animals make nests.

**Rennie:** Yes they do.

**Elsa:** Well, what animals?

**Rennie:** I'm not sure now, but I know there are some.

**Elsa:** I think you're wrong.



*Do you think Rennie is wrong – that birds are the only animals that make nests?  
If she is right, how could she convince Elsa?*



**Arabella:** By thinking of a counter-example



*Could you help Rennie think of a counter-example – an animal, other than a bird, that makes a nest?*



**Arabella:** Possums

**Shaun:** And rats



*How would thinking of a counter example help Rennie?*



**Shaun:** Rennie could use a counter example to show that she is right.

**Arabella:** Yeah, or to show someone else that they are wrong.



*Here is another statement. See if you can think of a counter example.*

All Australians can surf.



*Were you able to think of an example of Australians who can't surf?  
How about a counter example for this one:*

You have to be at least eight before you can learn to swim.



*Were you able to think of an example of someone who was less than eight who could swim?  
Would that help explain to someone how they were wrong?*

We heard some really interesting ideas today. Thank you for joining us. You might like to look out for times when you or other people give examples and counter-examples and think about why people are doing it.

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Thank you to our wonderful actors Arabella and Shaun who helped us to hear different points of view. While sometimes these points of view might have reflected their own opinions, at other times they were asked to express an opposing view in order to help us think more deeply about the topic.