

Your Shortcut to ... Cyclones, Hurricanes and Typhoons

They form way out over the ocean near the equator.. they can travel thousands of kilometres to reach our shores .. and there are lots of things we can do to prepare for when they get here . This is your Squiz Kids Shortcut to Cyclones, Hurricanes and Typhoons—the podcast where we dive into the who, what, when, where, why and how of the big news stories. I'm Christie Kijurina.

And I'm Bryce Corbett.

Bryce, if you've been anywhere near the news or social media lately, you will have heard about the damaging tropical cyclones that have been blasting coastal regions of northern Australia recently. And if you're inland, or a bit further south, you might have felt the after affects of heavy rainfall and flooding. But tropical cyclones, hurricanes and typhoons don't just occur in Australia.

Today, we're diving into the eye of the storm to take you through WHAT cyclones, hurricanes and typhoons are, WHY we're hearing so much about them lately, and HOW we can prepare, if one is headed our way. So grab your raincoats and hold onto your hats, because here we go!

Listen carefully - there's a Squiz at the end!

WHAT

Alright Bryce, let's start with the basics. Whether it's called a cyclone, a hurricane, or a typhoon, it's all about location, location, location. Here in Australia, we're familiar with cyclones. They occur in the South Pacific and Indian Oceans along the northern coast of Australia. If you're in the United States, Mexico or the Carribean, they're known as hurricanes, and if you're in China, Japan and the Phillipeans you'd call them called typhoons. But no matter the name, they're just the same. They're all giant, swirling storms.

But these aren't just any ol' storms Christie. They start over warm ocean waters near the equator. Picture this: warm, moist air rises and leaves an area of lower air pressure beneath it. Because the pressure is lower, cooler air then rushes in to replace it. This cool air then warms up, and rises too, creating a spiral and the spiralling air then churns up massive storm clouds.

That's right, and the Earth's rotation gives these storms their signiture spin. That's why in the Southern Hemisphere they spin in a clockwise direction and they go anti-clockwise in the Northern Hemisphere.

Yep. Imagine a giant spiralling storm forming above the ocean - that's what we're talking about.

The center of this storm, the eye, is eerily calm and quiet, but the eye is surrounded by a wall of clouds with the strongest winds and rain. Winds here can get up to 360 kilometres an hour!

Woah! The size of these storms can be massive too, covering hundreds of kilometers. They can last for days or even weeks, traveling thousands of kilometers across the ocean.

In Australia, the Bureau of Meteorology (you might have heard it called the BoM) categorises cyclones from Category 1, being the mildest, to Category 5 storms, which are extremely dangerous. These categories are based on wind speed, but it's not just the wind that's a problem.

No, it's definitely not. When these storms get close to land, they bring heavy rains with them. Rains that can cause flooding, landslides, and even create storm surges - which are huge waves that can causing flooding inland around coastal areas.

Phew! That's a lot of wind and water Bryce.

It sure is Christie. But WHY do we seem to be hearing more about cyclones and other tropical storms recently?

Why

Here's that swirling question again: Why do we seem to be hearing more about cyclones, hurricanes, and typhoons lately? You might think it's just because there are more of them, but hold onto your hats, because the answer is a little bit more complicated.

Christie, do you remember that I said that warm water is like a party invitation for these storms? So as Earth's temperature rises, so does the temperature of our oceans. Warmer water means more fuel for the storms to form and to become more intense. So the number of these storms is increasing because of climate change, right?

Well, while that's certainly a factor Bryce, here's a twist: in 2023, the number of cyclones, hurricanes, and typhoons was actually lower than the global average. Surprised? It goes to show that while climate change is a critical factor in the impact of these storms, it's not the only factor.

So what else is happening, because I know there's been a lot of cyclone news lately?

Well, even though there have been fewer storms overall, the intensity, meaning the wind speeds and the amount of rain these storms are dropping has actually increased. The percentage of cyclones that are reaching category four and five is going up.

So, there are fewer storms, but the ones we're getting are more dangerous and are causing more damage?

That's right. And we also need to consider where these storms are coming into contact with land.

Well, they form in the ocean so I'm guessing they come into contact with land on the coast. And I know that in Australia, 85 percent of people live pretty close to the coast, so when a cyclone hits, lots of people are affected. It's big news.

Your totally right Bryce. And these days, news travels ...faster than a cyclone...thanks to the internet, social media, and 24-hour news channels, we hear about storms almost as soon as they form. Every twist and turn of these storms is reported in real-time, giving us the impression that they're happening more frequently.

So, it's a combination of factors at play. More media coverage, growing coastal populations, and the impacts of climate change all contribute to why we're hearing more about these powerful storms. It sounds like it's important to stay informed so we can better prepare, but how can we be prepared for a cyclone?

HOW

Alright, so a big storm's on the horizon. What do you do Bryce?

I don't know, panic?

Nope! Preparation is key, and here's how you can do it. First, stay informed. Keep an eye on the BoM for the latest weather updates. They'll let you know if a cyclone's brewing and how severe it might be. Knowledge is power, especially when it comes to weather.

Ah, yes, and let's talk about your emergency kit. This should include things like water, non-perishable food like museli bars and tinned food , a first aid kit, a torch, and a radio that runs on batteries in case the internet goes down, so you can still get important news updates.

That's right Bryce. You should have some extra batteries too, pop any important documents or medicines in waterproof bags, and let's not forget about our furry friends – make sure you have supplies for them too.

Now, there might be some really strong winds on the way, so secure any loose items around the yard like garden furniture or trampolines. These can become dangerous in high winds and I don't want your trampoline landing on my roof.

No you don't! If there's time and someone's able, you could also get your parents to trim any tree branches that could fall on your house, and people who live in a cyclone-prone area, might consider installing shutters or stronger roofing.

But sometimes, even with the best plans and preparation, leaving the area for a bit might be the best option, and so it's really good to have an evacuation plan. Know your

local evacuation routes and have a plan for where you'll go if you need to leave. Remember, your safety is more important than your possessions.

And, never, ever, drive through flood waters. Even if you think the water doesn't look too high, "if it's flooded, forget it!" You never know what's happening beneath the surface and water is much more powerful than you might think.

And don't forget to think about your community. Check on your neighbors, especially the elderly or those who might need extra help. It's about looking out for each other – in true Aussie spirit.

So, there you have it, folks. Being prepared, not scared, is the way to go when dealing with cyclones, hurricanes, and typhoons.

THE S'QUIZ

"This is the part of the podcast where you get to test how well you've been listening...

1. Where in the world do cyclones, hurricanes and typhoons begin forming? (The equator)"
2. What percentage of the Australian population live near the coast? (85)
3. What's the name of the plan you should you have if you're going to leave your home while a cyclone happens? (evacuation)

That's all we have time for today. Thanks for joining us as we explored the who, what, how, where, when, and why of Cyclones, Hurricanes and Typhoons. Teachers, there are a whole heap of excellent classroom resources related to this topic on the Squiz Kids website and there's a link to them in the episode notes.

Now get out there, and have a most excellent day!

Over and out.