Podcast: Imagine This

Episode: Why are there waves?

Duration: 9’12

[ABC Podcast sting - This is an ABC Podcast]

Bri: Hello. My name’s Bri.

[Sounds of the beach, waves, seabirds]

Today on Imagine This, we're going on an adventure to a place where you might want to bring a bucket and a spade. It's somewhere where you could find lots of shells.

Kids: A Beach!

To the beach.

Bri: Yep. We're going to the beach. Have you ever been to the beach?

Kids: Yeah, I went to the beach with my mummy.

Bri: What do you do when you're at the beach?

Kids: We play.

And you throw shells out of the ocean.

I want to hear the beach.

Bri: Good idea. Let's listen and see what we can hear.

[Waves crashing on the shore]

Bri: What is that sound?

Kids: Waves.

Bri: Yep. It's the sound of the waves, crashing on the shore. Well, today's question is about waves and it comes from Evie.

Evie: Hi, my name's Evie. I'm 6 years old. I would like to know why are there waves in the ocean?

Bri: Good question, Evie. I wonder where those waves come from. Lucky for us, our good friend Mark Hemer is also at the beach today. Mark is a scientist who has studied how waves work in the ocean.

[Footsteps crunching on sand]

Bri: And I'm pretty sure he's under one of these beach umbrellas. I think it's this one. Hey, Mark.

Mark: Hello.

Bri: You better be wearing sun cream on a day like today?

Mark: Of course.

Bri: Just checking. I've got mine on. Do you have yours on too?

Kids: Yeah.

Bri: Then we're ready for the beach?

Kids: Look at those waves!!

Bri: Oh yeah. Are they big waves or little waves?

Kids: Big waves!

Ginormous.

Mark: Yep. Big waves.

Bri: How big?

Kids: Bigger than him.

Bri: Bigger than Mark?

Kids: Yeah.

Bri: Well, that's a big wave. Are all waves that big?

Mark: No, some waves are little.

Bri: Like baby waves?

Mark: Yeah. Tiny waves.

Bri: So what's in the ocean?

Kids: Water.

Mark: Yes. The ocean is made up of water. Lots and lots of water.

Bri: Then what are waves made from?

Kids: Water!

Bri: And where do the water waves come from?

Kids: From the sea.

Mark: Yes. Some of them have come from a long way out at sea.

Bri: How do they start?

[Building cello music]

Mark: Sometimes out in the middle of the ocean, a big storm brews.

Bri: Ooh, a storm.

[Music intensifies, under sounds of thunder and rain]

Kids: Crash! Thunder!

So loud it hurts your ears.

Lighting!

Look at the lightning!

Bri: Wow. There's something else in a storm too.

Kids: Wind.

Mark: Yep.

Bri: What does the wind do?

Mark: The wind can blow. And the wind can howl

[Kids make blowing and howling noises].

Bri: Which way does the wind blow?

Mark: The wind blows this way.

Kids: This way.

[Kids making blowing noises]

Mark: And the wind blows that way.

Kids: That way.

[Kids making blowing noises]

Mark: And the wind can be so strong, it makes the ocean water move.

Bri: How does it move?

Mark: It turns the ocean water into waves.

Bri: Oh, I know how the wave starts.

Kids: By the wind.

Mark: Yes. The wind is what makes the waves. When the wind blows the water, it makes a small wave on the surface.

Bri: How does that work?

Mark: If you blow gently on the top of a glass of water, you'll see tiny waves in your cup.

Bri: Okay.

[Bri blows]

Mark: Hey Bri. You just made a wave.

Bri: I did?

Mark: Yeah, but they're not big enough to go surfing on.

Bri: How do I make big waves?

Mark: The stronger the wind, the bigger the wave.

[Kids make blowing noises]

[Exciting magical music builds]

Mark: And, further the wind blows, the bigger the waves can get. And storms can make big waves.

Kids: There's a big giant wave.

And it can go high up.

Yeah big ones.

The ocean is getting wet.

Yes.

Bri: How big are the biggest waves out there?

Mark: They're as big as two brachiosaurus and standing on top of each other.

[Dramatic music sting]

Bri: A brachiosaurus is pretty tall. There must be some big waves out at sea.

[Pleasant classical music]

Mark: Yes. And sometimes the sea is calm. The water almost looks still. But if you listen close, you might hear a tiny wave roll onto shore.

[Soft crash of waves]

Bri: So big waves and little waves all start by the wind?

Mark: Yep. The wind kind of starts the wave and then pushes it along.

[Kids blowing]

Mark: But when the wind stops blowing, the wave can keep traveling all by itself.

Bri: Waves can travel?

Mark: Yep. They can start in one place and end up in another.

Bri: Which way do the waves come from?

Mark: Some come from this way.

Bri: Which way?

Kids: This way.

Mark: Then some come from that way.

Bri: This way?

Kids: That way.

Mark: Waves come from different spots. They can travel far across the ocean.

Bri: How far?

Mark: Sometimes there's a storm maybe in America. And then we might see those waves turn up on our shore.

Bri: But America is on the other side of the world.

Mark: Yep. They can go from one part of the world to the other. Sometimes waves can keep moving for five days across the sea.

Bri: Five days is a long time for a wave to travel.

[Sound of waves crashing]

Mark: Yeah. Waves have lots of energy. But the waves are very powerful.

Bri: How powerful?

Mark: Powerful enough to knock you over.

Bri: But I love jumping in the waves.

Mark: Jumping in the waves is really fun but, you've got to hold someone's hand.

Bri: Why?

Mark: Or else the wave might knock you over.

Bri: The wave can knock me down?

Kids: Yes!

Yes, yes, yes!

It's dangerous.

Bri: So you don't go in the ocean by yourself.

Kids: No Mama holding me.

Bri: Phew. Who do you go to the beach with?

Kids: I go to the beach with my mummy and my mama.

Daddy and my mummy.

Poppy lift me up so I can jump out of the way so I didn't get salt in my eyes.

Bri: So when you're holding an adult's hand, what do you do when the wave comes?

Kids: Jump over the tiny waves.

I can jump over the big ones too.

Bri: And which way does the wave come?

Kids: Um... to me.

Bri: Yep. The waves roll into the beach and sometimes surfers and sailboats can ride the waves back to shore.

Kids: With a surfboard.

[Sound of the ocean; waves crashing, seabirds chirping]

Bri: Yep. And sometimes those waves have come from a long way away to crash at your beach. So Evie, waves are made by the wind. And when the wind blows the water out at sea, it makes a small wave on the surface of the water. And that wave can move through the water and move the water up and down. Sometimes the waves are really big, and sometimes the waves are tiny. But once that wave starts, it can move all by itself. So, who knows where it might end up.

Kids: At the beach!

[Waves crashing, fading to silence]

Bri: Imagine This, is a co-production brought to you by ABC Kids Listen, and the conversation. A special thanks today to Dr. Mark Hemer from the CSRIO. Bryce Halliday for mixing, and all the kids who had their say on today's show. I'm your host and producer, Brianna Peterson. To find more episodes of Imagine This, you can download the ABC Kids Listen app or find them wherever you get your podcasts.