



Teek and Tom Explore Planet Earth

Episode 2: The Ocean is Key to the Weather and Climate We See!

TRANSCRIPT

Teek

Hi, I'm Teek. I live on planet Queloz. For my final class project, my teachers said,

Teacher Puna

Find a planet in this galaxy and explain how its atmosphere works

Teek

So with my trusty spaceship BARY

BARY

That's me!

Teek

I headed to Earth. That's where I met NOAA scientist Tom.

Real Tom

You've come to the right person.

Teek

Now he's showing me how awesome Earth is.

Cartoon Tom

It's so beautiful.

Teek

I can't wait to learn more. Let's go!

Parental Figure

Oh, Teek. Wah wah wah

Teek

Good, parental figure!

Parental Figure

Wah wah wah wah, Teek.

Teek

Yes, parental figure!

Parental Figure

Teek, Wah wah wah. Wah wah wah wah.

Teek

Yes, parental figure! It's going well. But I really need to go to meet Earthling climate scientist Tom now.

Parental Figure

Wah wah, Teek. Wah wah wah.

Teek

Yes, okay. Okay. Love you parental figure. Bye. Huh! OK BARY, let's surprise Tom. Go ahead and ring his Zworple Watch.

Teek

Hi, Tom from NOAA.

Real Tom

Hi, Teek from Queloz. Oh this is so cool. I can see you right now. Where are you? Hello...Hello, Teek, hello? Hello ... Whoa!

Teek

Hahaha! Got you! Hey Tom!

Real Tom

Heh-heh-heh Hey! Great to see you again! How was your trip? No traffic I hope?

Teek

Nope. I took Wormhole 51. No traffic on Thursdays.

Real Tom

I hope you liked learning last time how our ocean affects weather on Earth. It's wild, right? And why us humans really care about our weather and climate.

Teek

Liked? I LOVED learning so much about weather and climate at the farm. What are we going to learn today?

Real Tom

More about how the ocean has a huge influence on our weather and climate. And if we're gonna talk about the ocean, we'd better head to the beach!

Teek

Woohoo! BARY, activate Beach Mode.

BARY

Activating Beach Mode.

Teek

Let's GO!

Teek

Oh wow, it's getting late. We really lost track of time.

BARY

Not BARY. Our time here has been tracked precisely. We have been at the beach for 3.4 Queloz minutes or 6.2 Earth hours.

Cartoon Tom

Thanks BARY. Sunset is a perfect time to talk science. Since the ocean absorbs energy—or heat—from the sun, it has a major influence on weather and climate.

Teek

Huh! Sorta like how your body turned all hot and red from the sun's energy?

Cartoon Tom

Wait, what? I'm sunburned? Aww, no. I really should have put on sunscreen.

Teek

Oh, don't worry. Use this. Been keeping our skin healthy for millennia.

Cartoon Tom

Ahhhhhhhhhh! Thanks! Since we can't bring the sun to Earth, thank goodness, let's use a beach bonfire instead to show how water absorbs energy differently than land and air.

Teek

Good idea. Someone tried to bring the sun to Queloz once and pkow-ow-ow! I can help with the fire! BARY, put Earthling bonfire experience right here. Huh! Oh my gosh! What are these delicious food concoctions?

Cartoon Tom

You don't have s'mores on Queloz?

Teek

Mmmmm, No. These are so good! Mmmphm!

Cartoon Tom

Remember to chew! So, check this out. Water heats slower than land. Feel how the ground and air around that fire are already pretty hot?

Teek

Yeah! I don't want to get my tentacles closer to that fire.

Cartoon Tom

Me neither.

Teek

BARY can tell us the temperature from now on.

Cartoon Tom

But if I put my finger in the water, it's not that hot yet.

Teek

Woah! It's warm but not as hot.

Cartoon Tom

This is like a summer day by the beach! Hot land, cooler ocean. The hot land heats the air above it causing it to rise. Cooler air over the ocean rushes in to replace it. And that causes a cool sea breeze.

Teek

Like when those winds picked up in the late afternoon, and we got some serious kite flying in?

Cartoon Tom

Exactly! At night, this happens in reverse as the land cools faster than the ocean. Just like if we put *out* the campfire. The air and ground cool faster than that pot of water. Right BARY?

BARY

Confirmed. Air and ground have cooled to a manageable temperature. Water has not.

Cartoon Tom

So at night, air over the warmer water rises, and is replaced by cooler air over the land. And you get a cool land breeze. Put together, these breezes keep coastal temperatures from getting too hot or cold.

Teek

Which we get to take advantage of! My classmates are gonna be so jealous!

Cartoon Tom

Congratulations on winning by the way. Maybe next year for me.

Teek

The coast is nice and all, but what if you're not near the ocean?

Cartoon Tom

What if I told you, that even if the ocean is a *thousand* miles away, it's *still* involved, even in a thunderstorm. Let's head back to space, and I'll show you how!

Teek and Tom

BARY, take us to space!

Cartoon Tom

[whispers] Yes, space!

Cartoon Tom

Four Earth days ago, these Kansas thunderstorms started as a bigger storm over the Pacific Ocean. See there?

Teek

Hmmm I can't see. Maybe my vision's too...cloudy.

Cartoon Tom

Heh. I shouldn't have taught you what puns are.

Teek

Yeah, what on EARTH were you thinking? Maybe my joke didn't...LAND.

Cartoon Tom

Please, stop.

Teek

Wait Tom! Let's go back in time so we can watch!

Cartoon Tom

Really? You can, time travel?

Teek

Uh...Yeah! Check this out. BARY, rewind Earth's space time!

BARY

Accessing time stream...powering up to reverse temporal speed in 3...2...1

Cartoon Tom

Did it work?!?

Teek

Of course not! We can't time travel. I was just teasing. That would be cool though! But we can reverse the video.

BARY

How many days would you like to access?

Cartoon Tom

Let's go back four days.

Teek

This is like my favorite kind of movie! Let's watch!

BARY

And, BOOM!

Cartoon Tom

There's that bigger storm over the Pacific Ocean—see it? It's picking up moisture before moving into the United States and the Central Plains. And there's moisture blowing in from the Gulf of Mexico. The air from the Pacific Ocean collides with the warm moist air from the Gulf of Mexico in the Central Plains.

BARY

Tada! Weather!

Cartoon Tom

So the next time you're at the beach and swimming in that big blue sea, know you're also swimming in one of the biggest controllers of our planet's weather and climate.

Teek

Gosh, this planet is awesome! What are we learning next?

Cartoon Tom

We're going to learn about how the ocean influences *extreme* weather and climate events! I know it looks scary, but making sure people are prepared for extremes is why I do this job. Oh, Oh, I gotta go Tom. Parental Figure expects me home by dinner. We're having zworple pie!- Oh, I almost forgot. My parental figure baked you a zworple pie!

Cartoon Tom

Thanks! Do you know if it's gluten free?

Teek

Ahhh, what now?

Cartoon Tom

Nevermind.

Teek

Ok, let's drop you off back at NOAA. See you next time, Tom!

BARY

[loud belch]

Real Tom:

Ahhh, Again? Ugh. The things I do for students.

Teek

BARY, open Student Log.

BARY

Student Log accessed. Now recording.

Teek

Day 2: Final Project. Ok important thing to remember. The ocean has a HUGE influence on weather and climate. That's because ocean water cools and heats slower than the land, which helps to make sure coastal temperatures are not too cold or hot. Oh, BARY, what was that tasty campfire thingie called again?

BARY

A s'more.

Teek

Some more of what?

BARY

Ha. Ha. Earth pun detected

Teek

Hehe puns are awesome. Back to sciency things. Fun fact: storms in the middle of the United States could have started thousands of miles away *and* with water that was once in the OCEAN too! Everything is interconnected...WEATHER humans like it or not.

BARY

Activate audience groaning.

Teek

One last thing. Remember s'mores recipe to share with friends.

BARY

Recipe saved. Student log archived. That was a...breeze.

Teek

Uhh, HEY!

Teek

Aww, no. Whee! Haha.

Real Tom

Whoaaaaa! Whoaaaaa! Ahhhh!

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