Podcast: Gardening Buds

Episode Title: How do plants work?

Duration: 10’ 10”

[ABC Podcast sting – This is an ABC podcast]

**Costa:** Hi, it's Costa here. Thanks for joining us at Gardening Buds. If you're new to the podcast, head back and start from episode one. If you've been with us from the start, let's get into it.

[phone rings]

[hold music starts]

**Costa:** Welcome back to the Gardening Buds hotline. Your bud is smelling the roses, but we'll be with you shortly.

[hold music ends]

**Costa:** Hello?

**Caylee**: Hi.

**Costa:** Caylee. How are you?

**Caylee:** Good. How are you?

**Costa:** I'm really well. Ready to go. What's happening?

[upbeat music starts]

**Caylee:** Before we get started, I've got a joke for you.

**Costa:** Jokes? I love jokes.

**Caylee**: Knock, knock.

**Costa**: Who's there?

**Caylee**: Leaf.

**Costa**: Leaf who?

**Caylee:** Leaf me alone.

**Costa:** Okay. See ya.

**Caylee**: No, don’t leave!!

[Costa and Caylee laugh]

**Caylee:** Costa, I have a question. I've finished my site assessment. So what are we going to do today?

**Costa**: Fantastic. Well, the next step is you need to learn a little bit more about how plants work.

**Caylee:** How should we do that?

**Costa:** Well, the best place to do that is right here at Gardening Buds HQ.

**Caylee**: Cool. I'll go and see if my mum will let me come over. Mum, can I go to Gardening Buds HQ, please?

**Mum:** Sure. Let's go.

**Caylee:** Yay. I'll see you in a bit.

**Costa**: Okay. See you soon.

**Caylee**: Bye.

[dial tone]

[door opens and closes]

[sound of skipping]

[music ends]

[birds tweet]

[chilled folk music starts]

**Costa**: Welcome to Gardening Buds HQ, Caylee.

**Caylee:** Whoa.

**Costa**: This is your nature oasis in the city.

**Caylee:** This is big. Mama, look.

**Costa**: Welcome mum, too. And look, over here we have our special parents' pen. Caylee, you can leave your mum in there. She'll be totally safe, and be here when we come back later because we've got work to do.

**Caylee**: Okay. See you soon, mum.

**Costa:** Okay, Caylee. Let me show you around Gardening Buds HQ. But first of all, throw some gloves on.

**Caylee**: Okay, let's... Where? Okay, so here's- There we go. Let's go.

**Costa:** Let's go. Caylee, I want to talk to you about plants because there's three main things that you need to know about plants so that you can pick the right plants for your place. The first thing is sunlight. The second thing is water. And the third thing is food. Now to capture sunlight, which part of the plant do you think they use to capture sunlight?

**Caylee:** I can only think of the leaf.

**Costa:** You thought correct. The plants use their leaves to capture sunlight and that runs the plant. When it captures the sunlight, then it can grow. So think about it. Some plants can live, like look over there in the garden. Underneath the big trees there's less light, but there's still plants growing under there. And then over here, these plants are growing in full sun. So some plants need more light. Some plants need less light. And then when it comes to water, it's the same thing. Some plants need more water. Other plants need less water.

[music ends]

**Caylee:** That makes sense.

[bright music starts]

**Costa:** Where do you think they, the plants draw the water through?

**Caylee:** The roots.

**Costa:** Exactly. Caylee, what do you call it when the sun heats something up and the water disappears?

**Caylee:** Evaporation. I think that, if it's a really hot day, that the water evaporates and it goes up into the clouds. And then that turns into lots of water inside the clouds. And then, and then the rain comes out and it keeps on going.

[sound of thunder, and rain falling]

**Costa:** You just explained what the water cycle is. That is how water cycles around the planet. Because the sun heats it up, brings it up into the air, the clouds get filled, then it rains. The soil will hold the water and then the plants take the water up.

**Caylee**: Cool.

**Costa:** So the third thing we want to talk about today is where do plants get their food. Where do you think they get their food?

**Caylee:** It's tricky, but I'm pretty sure it's worms.

**Costa:** And where do they eat? Where do- Do plants have a mouth?

**Caylee**: No, but what they do have are roots.

**Costa:** And how do the roots get food?

**Caylee:** Well, when water comes into the soil, the roots suck it. And then it goes up into, inside the plant.

[sound of squelching mud]

**Costa:** Exactly. The soil is basically where the plants go to eat. The soil has not only water, but it also has nutrients. And those nutrients are the things in the soil that have broken down. And so there's minerals, and it's those minerals which is the food for the plants. It moves with water and the plants, like you said, suck the water and the minerals up through their roots. And that makes them grow. Do you know that you can help make soil?

[music ends]

**Caylee**: How?

**Costa:** You can get your food scraps and put them in things like a compost bin.

**Caylee:** So, like a worm farm, you mean?

**Costa:** Exactly. And look what I have right here.

[inquisitive music starts]

**Caylee**: Cool. Can we have a look inside, please?

**Costa:** Let's have-

**Caylee**: There's a worm. Look how long it is!

**Costa**: It is. Do you want to grab it?

**Caylee**: Okay. Yeah.

**Costa:** Caylee, what does the worm farm smell like?

**Caylee:** I wouldn't wear it as a perfume, but it doesn't smell that bad. Just smells like earth.

[sound of squishing mud and wriggling worms]

**Costa:** Okay. Now Caylee, these are my benchtop kitchen tidies. So I collect my food scraps and when this gets filled up, I bring it down and I either give, give it to the worms or I put it in the compost.

**Caylee:** Careful of the worms.

**Costa:** Now, do you know what the worm is doing?

**Caylee:** No, but they look like they're digging into soil.

**Costa:** The worms eat leaves and broken-down flowers and food scraps. And they chew them up and they poop them out.

**Caylee**: That's worm poo?

**Costa:** And this has all of the minerals that were in the food. The plant's roots can go in there and they suck up all of the goodness.

**Caylee**: So this is fertiliser?

**Costa:** And that's how they grow. It's fertiliser. Exactly. So let's tip it out.

**Caylee:** Oh, it's heavy. Can I have some help?

[sound of compost being tipped out]

**Costa**: Okay, so all of this you see here, which is a mixture of food scraps and some paper and cardboard, became food for the worms.

**Caylee:** Then came poop!

**Costa**: Which is otherwise known as plant...

**Caylee**: Fertiliser! Our leftovers becomes food for our plants?

**Costa:** Exactly. The thing I want you to think about, Caylee, is nature turns dead things, it breaks them down, into soil which then grows new life. So compost actually turns dead things back into life again.

**Caylee:** Whoa.

[music ends]

**Caylee:** Now I want to see how much I've learned. So let's do the one and only Quiz Time.

[quiz theme music starts]

**Costa:** Challenge yourself with these three questions. Number one. Caylee, are you ready?

**Caylee:** Yes. Ready.

**Costa:** Where do plants collect sunlight?

**Caylee**: From their… leaves. Leaves.

[birds tweet and a crowd cheers]

**Costa:** Do-do-do-do!! One from one. Caylee, you're doing very well. What about you at home? Did you get it? Question number two. Whereabouts do plants get their water?

**Caylee**: Umm… The roots suck up the water into the plant.

[birds tweet and a crowd cheers]

**Costa**: And the third and final question for today's quiz. Caylee, are you ready?

**Caylee:** Yeah, I'm ready for anything.

**Costa:** Question number three. What are some ways that we can help plants get more nutrients?

**Caylee**: We can make a compost bin and a worm farm.

**Costa:** do-do-do-do-do-doo!!

[birds tweet and a crowd cheers]

[quiz theme music ends]

**Caylee:** Thanks, Costa, for letting me come to Gardening Buds HQ.

**Costa:** That's a pleasure, Caylee. It's been fantastic to show you around.

**Caylee:** I have to go and take my mum home from the parent pen, or as I like to call it, the chicken pen.

[chickens cluck]

**Costa:** Caylee, I can't wait till next time when you come back so I can show you around all of the habitats here at Gardening Buds HQ. Because gardens aren't just for us humans. They're for all the wildlife, all the insects, all the birds, everything that makes a happy ecosystem.

**Caylee:** That sounds awesome. I can't wait to come back.

**Costa:** I'll be ready.

[upbeat theme music starts]

**Costa:** Your Gardening Buds challenge, if you choose to accept, is to get one of those little stickers that you find on a piece of fruit and stick it on the leaf of a plant and watch what happens. From what we learned today, do you think you can guess what might happen? Leave it on for a couple of days and then go back and see what's happened to the leaf under the sticker.

[theme music ends]

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[bird sounds end]