Transcript - Science - Activity 2

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Hi, and welcome to activity number two with Habitat and Environment. For this activity, we are going to be creating a habitat. So kind of applying some things that we've learned in previous activity to this particular scratch with CS First project. Now first, you're going to be learning about different types of habitat. And then you're going to learn how to change the costumes of your characters, right. And then you will add sounds to your characters right to create an interactive habitat. So before we start, what is a habitat? Let's start diving deep. I'm sure you've heard of this word before. But I want you to come up with your own definition if you can. And teachers feel free to pause this video, facilitate that discussion with your students. And once they're ready to go come back to this video.

Now if you have connected to some of the stuff that we have learned in the previous activity, a habitat is something where primary consumers and secondary consumers live, then you are on the right track. So this is my definition. A habitat is a location where organisms make its home. And what you need to remember is that habitat changes according to many different factors, like environmental conditions, so different weather would create a different type of habitat, different location would also create a different habitat. So here is my one example. So imagine this and I have a huge hit here. I have like my shark, sheltered reefs and lagoons have anemones. So if you don't know what anemone is, remember Finding Nemo. So these anemones act as habitats for many organisms, such as the reef shark, and this is only one organism out of many, many, many, many organisms that live in the anemone. And this is only one example that I've provided. So I want to give you some time and start thinking about other examples of habitat. Teachers feel free to pause this video, give your students that time and shout out those answers. And once they're ready to go, then come back to this video and click play.

Okay, so if you have provided with other types of examples, like forest or the desert, or cave, then those are fantastic examples of habitat. So thank you so much for sharing that. Now. Some of you may have already know this, but we have been playing around with music and sound in previous activities. So we're gonna go back into it again. In a habitat, an organism makes it its home, so it's always interacting with the habitat. So we're essentially going to try and create and play around with like the dance party aspect of music and sound, and make our animals move in such a way that it is interacting with the habitat. So I want you to hop on over to lesson number two, dance party in music and sound. And click on number one, remix the dance party starter project and watch that video. Teachers I'm going to give you some time make sure to pause this video. Allow time for your students to finish watching this video and then return to this video whenever you're ready.

I bet some of you have realized oh, hey, I've seen this video before in music and sound. Okay, I think I know how to remix this Scratch project. But the key thing is we're connecting it back to our habitat and environment. So start thinking about what kind of organisms live in this particular environment? And how can I make them interact with the habitat? So just as a review, I know in this video they've mentioned this what are costumes and where do you find them in Scratch for CS First. So teachers I'm going to give you some time feel free to pause let your students answer this question and once they're ready for the answer, come back to this video.

Okay, so if you have mentioned something along the lines of costumes, or essentially looks for a sprite, then you're We're on the right track. And the way I have found it is just to click on the costume tab here. So this is my example, here for one of my sprites, I have two different costumes for my sprite. And the idea is that if I go back and forth between these two costumes, then it kind of creates some kind of animation with my sprite. And if I couple that with other types of blocks, then I can have this sprite interacting with its environment. So that's where I find it in the costumes tab in CS First, scratch for CS First, so perfect. So I'm glad that this is a little bit of a review for you. We're going to keep going. Now, with the music and sound unit, make sure you click on the starter project. And once you're in the starter project, I would like you to add three character sprites and an appropriate background to this habitat. So start thinking about where do you want to set place in this habitat, I think you saw a little bit of my project there, I'm going to stick with the under the ocean theme in my coral reef anemone area, and I'm adding aquatic organisms. Feel free to do that if you want as well. Otherwise, you can be as creative as you'd like. So set it in a different place. Teachers feel free to take a pause in this video, give your students time, three characters right and an appropriate background. And then once they're ready to go, come back to this video.

Okay, so if you have added three different character sprites, then your project should look something like mine, I have my underwater theme. As I've mentioned, I have my crab, my jellyfish, and my Octopus. Now I've added them in and I'm just sort of dragging them all around my scratch for CS First area. And I want to make sure that there, you can see their lovely faces in my habitat there. Another thing that I also wanted to double check is to see if there are other costumes as well. So I can see my jellyfish has other costumes. And then I can see that my crab has other costumes. And then let's see, my Octopus also have other costumes as well. And it's important, because you want to make sure that you have different costumes for different organisms so that they're kind of interacting. And if you're taking a look at some of the costumes, and you're like, you know what, it's not realistic. So for example, the third, fourth and fifth, that's too human like for my tastes. So feel free to delete those costumes, you don't have to stick with the ones that comes with. Okay, so always play around with the costumes. And there you have it. So thank you for adding three appropriate characters, right. And there are three different organisms that you would be able to find in that habitat. So right now, what I want you to do is click on the second video there, make a Cassi dance in one spot, make sure you watch that video. And once you have watched that video, change the costumes of one of your character spreads just change the costumes of one of your characters Sprite. Teachers, feel free to take a pause in this video and give your students time to watch the video and change the costumes of their character sprites.

Okay, so you don't have to choose the very first sprite that you've added on. But I did because I added my crab here. So I have included many things here. This is my appropriate project here. So if I have my green flag is clicked, then forever, I have my next costume and you can play around with the

have my green flag is clicked, then forever, I have my next costume and you can play around with the timing. Maybe I can turn it change it to 0.1 instead of 0.2. And that's my code. And I always want to click on a green flag to double check. If my code is working appropriately, I can see that my crab is moving it is changing between the two costumes that is perfect. And you know what's great about this code is that once it's highlighted, you can just simply copy this from your keyboard and paste that into your other sprites. And you will be able to see all of your sprites moving in the same way. You don't have to keep dragging you all you have to do is just click on Ctrl C and then Ctrl V in the coding section. And you can just duplicate all that code. So you can do that very easily for all three of those sprites. If you want or you can just stick with one of them. That's also Okay, as well. So, I know we've done a lot, we started with a starter project, remove the pre existing sprites out of our own sprites and an appropriate background. And then we watched another video to make sure that it moves. Now we're gonna keep going. Okay, so I know it's a lot. So if you need time to slow down, that's okay, feel free to pause this video. And then whenever you're ready, I'm here. So just feel free to click on play again, to keep going. Now for those who are ready to keep going and you have followed along, we are going to get started with make Cassie move. Okay, so we're gonna make Cassie move. And make sure to watch that video. Once you have watched the video, make sure that you are making your character sprite move. So watch video number three of lesson number two and make your sprites move. Teachers, you're free to take a pause in this video. And once you're ready, your students have already created movement in their spikes, then come back to this video.

Okay, so if you're able to add our movement blocks or motion blocks, then it should look something like this with your code. So I have my little crab that's moving back and forth. It's trying to climb on top of the rocks. That's by the coral reef there, and it's kind of interacting with the environment. So play around with the motion block, it doesn't have to move horizontally like mine is right now it can move differently, it can be floating up and down, it can go to a random location, depending on what kind of organisms you have. Maybe it's an insect, so you can't predict its movement. So play around with it be creative motion blocks, there plenty of different motion blocks for you to play around with. Now I know that we have done our movement blocks, and we have done our costume look blocks, I think it's time to take a little breather to kind of just slow things down. Because I know we've done so much.

So it's important for us to kind of take a mindful minute because we are so focused on to our screens, on our projects that sometimes we get stuck. As you can see, I to myself have made a couple of mistakes as well. But that's also okay. Because we're all going to be taking a really nice and simple, relaxing mindful moment here, we're going to be using calm. So what I'm going to be doing right now is to share the screen so that you can hear the tap. Now, with our mindful breathing, you're gonna find yourself mind wander a little bit. And what's great about this video is that it's set in nature. So if you're finding yourself wandering a little bit, what I want you to do is focus on the habitat that is being presented right now. So it is presenting you with a habitat. If you are, you know wandering a little bit You're thinking too much you're thinking about your project, focus on what's being presented to you on a screen and if you still can't focus then focus on the habitat and maybe it will give you some inspiration. Okay, so we're gonna get started.

Okay, so I hope that that was a bit of a mindful moment for you, you were able to relax, focus on the stream there, that water sound, breathing in, holding on to your breath and then letting it all out. So that's perfect. We're gonna go back to our project there. You know it. We've been using video number two and video number three, we're going to keep going to video number four, add dance music for

Cassie. So make sure you watch this video, watch video number four, and then add music to your sprites as it is moving. Now because we're talking about music, we know it might be disturbing for others so make sure you have your headphones on. And so you are focusing only on your music and not on other people's sound effects. So teachers feel free to take a pause of this video and return to this video once the music has been in put it into your scratch for CS First projects.

Okay, so if you have found an appropriate sound for your animal, then you can just add on to it, I will show you my code here, I have found that chatter kind of resembles similarly to the clicking of the crab claws there. So I know at least I can hear the sound that if it is being played, I can actually hear that sound effect being played over and over again. And that's because of that forever block that I have here. So make sure that you find an appropriate sound, you can change out the sound if you found two sounds that work really, really well for your sport as well. So thank you for adding all of that. And we have combined so many different things, video number two, three and four all the way to our environment. Now. Obviously, we have add ons. So if you scroll down a little bit, click on add on. And you'll see that you have different types of add on videos, I'm just gonna ask you to choose one of these add on videos and then include that into your habitat. This is a little bit like a Choose Your Own Adventure Time. I'm not telling you what to do. So find what works best for you and your environment. And then add that into your scratch for CS First project. Teachers feel free to pause this video, see where your students are at. And then whenever they're ready, come back to this video.

Okay, I can't wait to see what you have and what you have created for your add on. So far on your own, obviously, we have chosen one of the add ons. But for the entirety of our activity, we've really only just focused on one of our sprites, maybe you can use that little tip that I taught you just now and maybe copy and paste the code to other sprites. But right now you want to make sure that the rest of your sprites are moving and interacting with the habitat. So not only does it have its costume getting changed, it's also moving and it also has a sound. So you want to make sure that all three of those things are in all of your sprites before you are ready to turn it in. So teachers feel free to pause this video give your students that work period that work time for them to continue on programming for the rest of their Sprite. And once you're ready, feel free to return to this video.

Okay, so all of your sprites are now moving and interacting with the environment. I can't wait to see what you have designed and when you have created. So before we break off, I would like to know how many sounds did you add? Did you add only one per sprite per organism? Or you added maybe multiple sounds? And where is your habitat located? Is your habitat located near the coral reef in the anemone like mine? Or is it somewhere else like the rainforest with you know forest animals or maybe perhaps it is in the city. Wherever it is, this is a great time for you to share. So teachers give your students the opportunity to share their projects with the class feel free to pause this video and whenever they're ready, come back to this video.

Okay, so thank you so much for sharing your projects with the class. And thank you so much teachers for facilitating that. It's been a blast to be joining you virtually in your classroom to show you how we can code our organisms to interact with the environment and essentially creating a little home for all of our different organisms. This has been fun using CS First with Google and I hope to see you in the next activity bye!