

Mars Base Camp – *Insight From Mars*

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00:00:07.290 --> 00:00:18.240

Torey Earle: Hi everybody, my name is Torey Earle, and I am an Extension Specialist for 4-H Youth Development with the University of Kentucky College of Agriculture, Food and Environment Cooperative Extension Service.

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00:00:18.810 --> 00:00:25.830

Torey Earle: We're here today to introduce you to this year's 4-H National STEM Challenge which is called Mars Base Camp.

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00:00:27.480 --> 00:00:40.560

Torey Earle: If you hadn't noticed this year, we're doing the 4-H STEM Challenge training, just a little differently. This fourth segment is on the Mars Base Camp Insight From Mars activity from the 4-H STEM Challenge.

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00:00:46.920 --> 00:01:05.850

Torey Earle: In our fourth activity from the Mars base camp challenge we are going to look at insight from Mars. This is where we are sending back information from Mars to people on earth on what we've discovered and in doing this, we're going to use Scratch, which is a block-based coding program.

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00:01:07.020 --> 00:01:12.210

Torey Earle: To develop our own unique message to send back to Earth.

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00:01:14.460 --> 00:01:32.550

Torey Earle: In doing this, either become familiar with the Scratch block-based program language coding language, learn more about computer science concepts and sequencing and logical thinking and be able to have a fun and creative project to develop in Scratch.

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00:01:34.170 --> 00:01:54.210

Torey Earle: In doing this. You will need A computer and internet access for it. So, this is not necessarily one that everyone may do but it's a fun one for youth to do if they're interested in computer science. The Facilitator Guide, which the activity itself starts on page 30 and

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00:01:55.230 --> 00:02:12.540

Torey Earle: The activity page which is available at four dash h.org slash insight from Mars. Other things that you will need deterring the kid or the Scratch coding cards and computers with a Scratch installed. If you are not able to do it to do it in an online version.

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00:02:13.800 --> 00:02:19.410

Torey Earle: So, let's take a look at what this is going to look like on the screen itself.

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00:02:21.150 --> 00:02:31.080

Torey Earle: For the Mars Base Camp insight from Mars. We're going to start right here at the four dash h.org or ha STEM challenge web page.

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00:02:32.190 --> 00:02:38.610

Torey Earle: And to get to insight from Mars, we will scroll down to the center of the page.

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00:02:39.870 --> 00:02:41.340

Torey Earle: And will click on Get started.

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00:02:42.570 --> 00:02:53.580

Torey Earle: That is going to take us to the insight from Mars web page as you scroll down through here, you can see it gives you some information about insight from Mars.

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00:02:55.560 --> 00:03:05.850

Torey Earle: It also gives you a chance to see a video from some 4-Hers, as well as from one of the Google employees who helped develop this

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00:03:06.990 --> 00:03:17.970

Torey Earle: And the middle section here is where we will get started with the insight From Mars Scratch activity. But before we do that, we'll scroll on down.

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00:03:19.020 --> 00:03:27.720

Torey Earle: And you can see that you can download the coding challenges, both in English and in Spanish.

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00:03:29.250 --> 00:03:40.350

Torey Earle: These are the same coding challenge cards that are in your kit and if you got the educator kit that are on the USB drive that came with it.

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00:03:41.430 --> 00:03:53.280

Torey Earle: But you can download these and utilize them or you can utilize the Scratch coding cards that are in your kit but to get started with the Scratch coding itself.

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00:03:54.000 --> 00:04:15.690

Torey Earle: Will go to this center section and click on start coding and that will bring us up to the Scratch website and it will look like this that we did 2020 4-H STEM Challenge Insight From Mars. And if you're wanting to do this with youth and have them share their different

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00:04:18.180 --> 00:04:36.540

Torey Earle: Scratch coding activities that they've created, they will have to create a Scratch account and you can do that by going right up here, it will be if the, if you're not already logged in, it will have you logging in. And if you don't have an account, you can create one.

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00:04:38.340 --> 00:04:54.900

Torey Earle: But in order to share their activities. What they will have to do is they will have to click remix and remix is basically the Save and be able to share function with Scratch. But to start the activity itself, you're going to click on see inside

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00:04:56.430 --> 00:05:12.750

Torey Earle: And that will take you to the Scratch programming window. Now over here on the right-hand side of the screen is the stage. The stage is where you will be able to see what's going to be on the screen. And as you notice here, it's already got some created

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00:05:15.420 --> 00:05:23.880

Torey Earle: In the stage, you can change backdrops, which will be over here on the right-hand side where it looks, he said, you can choose a backdrop

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00:05:25.710 --> 00:05:37.560

Torey Earle: In the center of the screen. The white area is actually your coding screen, you'll be able to move the different coding blocks over to make

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00:05:38.520 --> 00:05:49.950

Torey Earle: Different things happen on the stage over here. Now the Mars Rover that they have here in the center of the stage is called a sprite. There are many different sprites in

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00:05:51.030 --> 00:06:01.470

Torey Earle: Scratch that you can choose from. And as we get started with our activities. I'll show you some of the different sprites that are used and then give you a chance to

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00:06:03.540 --> 00:06:13.980

Torey Earle: Play around with that and create your own, but we will go through three or four of the Scratch coding challenge cards just to show you what it looks like to

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00:06:15.930 --> 00:06:17.010

Torey Earle: To be involved with

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00:06:18.300 --> 00:06:30.390

Torey Earle: Again, the center here is your, your coding screen that's where you're going to put all your code, I mean. And these blocks on the left-hand side are the

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00:06:30.900 --> 00:06:41.250

Torey Earle: Code blocks for Scratch. If you'll notice, there they are in different colors. The ones in blue, have to do with motion making your sprites move around the screen.

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00:06:42.660 --> 00:06:43.830

Torey Earle: The ones in purple.

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00:06:45.030 --> 00:06:49.770

Torey Earle: Have to do with looks or act are things that the sprites will do

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00:06:51.300 --> 00:07:00.630

Torey Earle: It may be a bubble that comes up and has them, say something. The down here, you can actually switch costumes, which we'll talk about that in a few minutes.

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00:07:02.070 --> 00:07:18.210

Torey Earle: You can switch backdrop. So, if you have a different backdrop. You want to appear. You can switch that there. You can change the size of your sprites, you can change the color of

your sprites. So, there are all different things that you can do to your sprites, as far as the look those

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00:07:19.560 --> 00:07:31.350

Torey Earle: The next section and the pink is sound you can add sounds to your sprites and some of the challenge cards will have that listed that you can do.

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00:07:33.390 --> 00:07:54.300

Torey Earle: In the yellow our events, the events are if then statements. For example, when the green flag is clicked, so you could also say if the green flag is click, then something else happens. And we'll show you that with a couple of the sprites and just a second.

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00:07:55.710 --> 00:08:08.250

Torey Earle: Orange our controls, controls can tell your sprite to wait a certain amount of time for it before it does something to repeat something a certain number of times, and we'll get into those as well.

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00:08:11.310 --> 00:08:18.690

Torey Earle: Sensing, we're not going to get into as much. It's one of those things that you can play with a little bit

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00:08:20.130 --> 00:08:26.910

Torey Earle: For example, if something is touching the mouse pointer, then you can make make a different action happen.

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00:08:28.320 --> 00:08:40.830

Torey Earle: Operators we're not going to get into those as much with with this activity, either. But just keep in mind that it's, it's something that you can do you can do on earth would take action and cause another action to happen.

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00:08:42.390 --> 00:08:46.740

Torey Earle: Variables. We're not going to use those as much either. In this one, but

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00:08:48.510 --> 00:08:56.640

Torey Earle: You can use those to make certain things happen and then you can actually create your own blocks in this. So, we're going to go back up here to motion.

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00:08:57.600 --> 00:09:06.660

Torey Earle: To other tabs that are up here. Our costumes, you'll see that when we click on costumes, the sprite that we have highlighted comes up.

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00:09:07.290 --> 00:09:16.230

Torey Earle: And you can actually change the costume and basically and changing a costume. All you're doing is making the sprite move

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00:09:17.130 --> 00:09:24.900

Torey Earle: Something that's on the sprite itself or change the image that the sprite has, for example, if I go from costume one on the rover.

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00:09:25.470 --> 00:09:33.480

Torey Earle: To costume to on the rover. You notice that the arm moves up and if you look over here on the stage, the arm moves up

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00:09:34.200 --> 00:09:52.680

Torey Earle: I got a costume three the arm moves down and you can see that on the stage that they are move fail, but we're going to move back to costume one and then sounds at this point we don't have any sounds loaded but down here at the bottom, you can click on choose a sound and

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00:09:54.000 --> 00:10:05.280

Torey Earle: It will give you all the different sounds that are available. We're not going to add sound. At this point, but will click on back, which is the at the upper left, and we'll go back to our code.

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00:10:07.410 --> 00:10:19.500

Torey Earle: Now our first Scratch coding challenge card and they are numbered in your kid is called continue the conversation. And in this Scratch.

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00:10:20.850 --> 00:10:31.320

Torey Earle: coding challenge card. We are going to add two sprites to our stage. And then we're going to have those sprites interact with each other in a conversation

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00:10:35.160 --> 00:10:47.430

Torey Earle: To add our sprites. I'm going to go down to the bottom right hand corner of my screen, not the backdrop, but where it says where you hover over it and it says, choose a sprite.

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00:10:48.090 --> 00:10:59.790

Torey Earle: I'll click on that. It's a little cat and the two sprites that they use in the example, our band. And if you see while I hover over be him. He's got

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00:11:01.200 --> 00:11:07.830

Torey Earle: Three different kind of three or four different costumes that he has. You can tell that because he's in motion. So, I'm going to choose been

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00:11:08.460 --> 00:11:14.820

Torey Earle: That's going to put him down here in this little sprites grade. And it's also going to put him up here on the stage.

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00:11:15.540 --> 00:11:23.460

Torey Earle: From there I can click on Ben and I can drag him around to different places. So, I'm going to stand him right up here on this ledge.

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00:11:24.270 --> 00:11:37.830

Torey Earle: And then if I go over to costumes and Ben is highlighted. Every time that I would click on a different costume for being he's going to change positions so we'll leave it on costume one for right now.

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00:11:40.170 --> 00:11:45.450

Torey Earle: And then I'm going to choose another sprite. Because if we're going to have them have a conversation. We need more than one

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00:11:46.770 --> 00:12:06.060

Torey Earle: The second one that they use in the example is goblin click on goblin goblin appears over here on the stage and I want to stand goblin on this ledge over here. Same with Ben, I can go to goblin and I can change costumes.

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00:12:07.800 --> 00:12:21.000

Torey Earle: Got a happy face goblin waving. I've got a sad face and something that looks like goblin maybe a little upset so going to go back to goblins first costume. And then over here to our code.

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00:12:22.110 --> 00:12:43.230

Torey Earle: Now, and continue the conversation. If you look on the back of your coding card, it gives you the code to put in to have them have a conversation will go through this step by step and then you might get a chance to work on this on your own, as we

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00:12:44.790 --> 00:12:45.690

Torey Earle: Finish up a little bit.

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00:12:46.920 --> 00:12:53.820

Torey Earle: So, the first person that we're going to have interact or have a conversation is bad, So,

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00:12:54.930 --> 00:13:01.050

Torey Earle: I'm going to put. I'm going to go over here and I'm going to click on Ben's sprite icon.

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00:13:02.520 --> 00:13:03.630

Torey Earle: And

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00:13:06.150 --> 00:13:18.390

Torey Earle: I'm going to have been actually answering goblin so we're going to look at our continue the conversation coding card and we're going to go to the bottom half of it.

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00:13:19.080 --> 00:13:24.420

Torey Earle: So, the first thing that we're going to look for is an event that's going to get everything started

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00:13:25.410 --> 00:13:42.780

Torey Earle: So, our event according to our coding challenge card is when the green flag is clicked, so all I will do is, I'll go over here. Click and hold on the event when the green flag is clicked, and I will drag it over to the coding window.

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00:13:44.400 --> 00:13:46.500

Torey Earle: The second thing at the bottom.

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00:13:47.700 --> 00:13:59.220

Torey Earle: Is a control. Now I can get to my controls below right below the events and I drag this over. It's our white control.

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00:14:00.270 --> 00:14:12.420

Torey Earle: And if I don't get it connected to my event. It won't do anything. So, I have to make sure and you'll see a little shadow appear there that I connected to the event.

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00:14:13.380 --> 00:14:25.530

Torey Earle: And on the coding challenge card, it has you to change that variable in there to wait four seconds. Wait one second is the default on it.

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00:14:27.330 --> 00:14:29.430

Torey Earle: Then we're going to have been say something

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00:14:30.840 --> 00:14:47.010

Torey Earle: Not a sound, but a look. So, we're going to go to our looks menu and you'll see the first block up here is say it indicates that he's going to say hello for two seconds now to go drag this over, make sure it's connected

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00:14:48.060 --> 00:14:55.380

Torey Earle: And instead of having him say hello for two seconds. We're going to have him say, I don't

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00:14:57.210 --> 00:14:57.660

Torey Earle: Know,

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00:14:59.100 --> 00:15:10.530

Torey Earle: With an exclamation mark. Okay, that's all band is going to say. So, when I click either on this green flag or on the green flag to start. Do you watch the stage.

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00:15:11.640 --> 00:15:15.930

Torey Earle: It's waiting for seconds and bn is going to say, I don't know.

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00:15:17.280 --> 00:15:17.760

Torey Earle: All right.

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00:15:19.530 --> 00:15:28.590

Torey Earle: But in order for that to make sense. Ben's going to have to interact with goblin so then I click on goblins sprite.

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00:15:30.330 --> 00:15:42.870

Torey Earle: And we want this to start when the green flag is clicked, that's going to be our trigger for all of our events. So, I drag when the green flag is clicked over to my coding window.

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00:15:46.350 --> 00:16:04.650

Torey Earle: I want goblin to wait for two seconds before anything happens. Now I had been wait for four seconds. Why did I do that because after goblin wait for two seconds goblin is going to say,

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00:16:07.830 --> 00:16:13.980

Torey Earle: What is this doing here with a question mark.

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00:16:18.240 --> 00:16:26.070

Torey Earle: And goblin is going to say that for two seconds. So, two seconds and two seconds is four seconds.

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00:16:28.350 --> 00:16:45.480

Torey Earle: Band doesn't say anything for four seconds. So, when my green flag is clicked 1001 1002, what is this doing here. I don't know. So, to have the conversation, you're going to have to work out timing as well so

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00:16:47.700 --> 00:17:03.330

Torey Earle: Goblin will wait for a couple of seconds and then says what is this doing here for two seconds and waits for four seconds before he says of anything. So, that is how a conversation will work, you listen to what one person says, and then you respond to it.

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00:17:05.730 --> 00:17:10.800

Torey Earle: So now we're actually going to have goblin white for another two seconds.

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00:17:12.750 --> 00:17:16.230

Torey Earle: And goblin is going to say So, mething else.

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00:17:18.810 --> 00:17:21.060

Torey Earle: Goblin is going to say,

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00:17:22.620 --> 00:17:25.890

Torey Earle: It looks scary.

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00:17:28.530 --> 00:17:29.700

Torey Earle: Okay, exclamation point.

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00:17:31.440 --> 00:17:35.400

Torey Earle: Now when I click on my green flag. We wait two seconds.

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00:17:36.450 --> 00:17:39.540

Torey Earle: Goblin asked a question and respond

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00:17:40.590 --> 00:17:46.410

Torey Earle: Goblin responds again and that is our first coding program.

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00:17:48.240 --> 00:18:03.690

Torey Earle: Our second coding challenge card is called animate a story title and in this one, you're actually going to create a sprite yourself to paint and to provide a title for your insight from Mars that you were sending back Earth.

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00:18:05.250 --> 00:18:18.450

Torey Earle: So, the first thing we're going to go down here and do is we're going to click on choose a sprite and we're going to choose on paint and that will bring up a blank sprite field here in the middle for us to create a costume or a sprite.

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00:18:20.580 --> 00:18:37.710

Torey Earle: What I'm going to do is I'm going to click on a rectangle and I am just going to draw a rectangle by clicking and dragging from one corner to the other. And you notice that it then appears on my stage over here.

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00:18:40.020 --> 00:18:57.210

Torey Earle: We can change the color of this to different colors. I think instead of doing purple to blue. I'm going to do green to blue or swap fat and I can do blue down to green.

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00:18:59.040 --> 00:19:04.860

Torey Earle: And all I did was, click on Phil and bring that over here to this.

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00:19:06.480 --> 00:19:16.650

Torey Earle: So, it appears at the top of my stage. Then I'm going to add some text to it. And you can see that there's all different types of texts that you can add

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00:19:18.120 --> 00:19:23.070

Torey Earle: To kind of look like what is on the challenge card itself. I'm going to use marker.

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00:19:24.090 --> 00:19:30.960

Torey Earle: And I just click inside my surprised to hear that I created. And I'm going to type

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00:19:32.820 --> 00:19:39.090

Torey Earle: Oh, I look at that and I can't see anything on it. So, what I want to do.

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00:19:40.530 --> 00:19:42.240

Torey Earle: Is I want to change the color.

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00:19:43.800 --> 00:19:49.020

Torey Earle: To a darker color that I can see. And I will type insight.

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00:19:50.100 --> 00:19:52.680

Torey Earle: From Mars.

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00:19:54.420 --> 00:20:14.970

Torey Earle: And if you'll notice, it comes up over here in my stage as well. So, click on that and then I can actually make this bigger by dragging and changing the size of the box that is in. So, now I have insight from Mars.

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00:20:16.740 --> 00:20:21.900

Torey Earle: It is my title on there and I can maneuver that around a little bit and

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00:20:23.490 --> 00:20:23.820

Torey Earle: Air

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00:20:25.350 --> 00:20:27.030

Torey Earle: maneuver around just a little bit.

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00:20:29.940 --> 00:20:31.080

Torey Earle: I can get a hold of it.

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00:20:32.760 --> 00:20:37.290

Torey Earle: Back from the center and get it kind of centered up in my screen.

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00:20:38.580 --> 00:20:51.930

Torey Earle: Right. And then on the challenge card itself. They add a little decoration to it. So, I'm gonna try my artistic ability here. I'm going to go here and grab a line and click

113

00:20:53.070 --> 00:20:55.110

Torey Earle: Girl click and draw

114

00:20:56.460 --> 00:21:04.140

Torey Earle: Draw and then release and then get another point. Click drone race. Click drawn relays.

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00:21:06.450 --> 00:21:08.340

Torey Earle: Just keep going like that.

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00:21:12.840 --> 00:21:17.910

Torey Earle: And I want to connect these two and not exactly the best in the world but

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00:21:20.640 --> 00:21:21.690

Torey Earle: I will click on

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00:21:22.860 --> 00:21:27.480

Torey Earle: After that, I'll go up here and click on my arrow. I'll go over here to fill

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00:21:29.340 --> 00:21:31.380

Torey Earle: Change my color a little bit

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00:21:32.550 --> 00:21:35.190

Torey Earle: Let's go with a reddish orange.

121

00:21:36.870 --> 00:21:46.830

Torey Earle: And we'll go down here to the little painful and click on it and you notice that I can hover over anything and it changed it will change the

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00:21:48.780 --> 00:21:54.810

Torey Earle: Font it'll change the box that I first created or it'll change the little thing that drew up here.

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00:21:56.160 --> 00:21:58.110

Torey Earle: So, after you're satisfied with it.

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00:22:01.230 --> 00:22:18.240

Torey Earle: By here and click on your arrow and I can actually move this down a little bit by grab it from the center I grab this one from the center. And if I grab this one from the center. I can move them all. You say, changes the spacing on the stage itself.

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00:22:19.650 --> 00:22:26.160

Torey Earle: So, I have created a new Sprite, a new costume and you notice it shows up over here and less bright window.

126

00:22:27.810 --> 00:22:31.620

Torey Earle: So, in order to make it do something I have to first go to an event.

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00:22:32.850 --> 00:22:34.410

Torey Earle: So, when the flag is clicked,

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00:22:35.490 --> 00:22:41.400

Torey Earle: And according to the coding challenge card. I want to go to looks again.

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00:22:42.660 --> 00:22:45.870

Torey Earle: And I want to scroll down until I find

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00:22:49.110 --> 00:22:50.940

Torey Earle: The set

131

00:22:53.760 --> 00:22:55.410

Torey Earle: Effect, which is right here.

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00:22:58.500 --> 00:23:03.090

Torey Earle: And then I'm going to drop down and I'm going to change it to ghost.

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00:23:04.980 --> 00:23:11.820

Torey Earle: And it sets the ghost effect to zero. Now we click on that we can see what the ghost effect is

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00:23:12.900 --> 00:23:13.980

Torey Earle: Not much right now.

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00:23:16.770 --> 00:23:27.870

Torey Earle: But if we want it to do something different, we'll go to our controls and we'll have it repeat changing something. So, this is going to mail base ghost effect is set to zero.

136

00:23:29.880 --> 00:23:34.950

Torey Earle: Going to go back to looks and instead of set. We're going to change the ghost effect.

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00:23:38.790 --> 00:23:44.700

Torey Earle: By to sweat it indicates on the car. So, we're changed that about two

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00:23:47.640 --> 00:23:52.440

Torey Earle: And then what it's actually having you do now is go to control

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00:23:56.820 --> 00:23:58.380

Torey Earle: Excuse me event.

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00:24:00.630 --> 00:24:16.530

Torey Earle: And when you get to the end of this repeat that it does for 10 times you're going to broadcast a message. Now we'll have to create a message for to broadcast. So, let's create a message at

141

00:24:17.760 --> 00:24:20.250

Torey Earle: The end.

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00:24:23.730 --> 00:24:24.630

Torey Earle: And click on that.

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00:24:26.640 --> 00:24:27.360

Torey Earle: So,,

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00:24:28.560 --> 00:24:32.490

Torey Earle: Let's go click on our green flag and see what happens.

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00:24:38.190 --> 00:24:48.000

Torey Earle: Just does a slight change in it so we can change this to let's say 10 and see what happens.

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00:24:53.160 --> 00:24:56.820

Torey Earle: Makes it completely disappear. So, five

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00:24:59.700 --> 00:25:06.270

Torey Earle: Just kind of faded out. So, if we wanted to completely fight out, we would probably go to Tanner better

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00:25:08.820 --> 00:25:12.480

Torey Earle: But our card indicates changing it to

149

00:25:14.430 --> 00:25:19.620

Torey Earle: It just causes it to fight a little bit, then it broadcast the message. The end.

150

00:25:25.920 --> 00:25:32.040

Torey Earle: Let's go back and see what it broadcasting that message the end would change on something.

151

00:25:34.230 --> 00:25:50.190

Torey Earle: When we look at what we've got right now on our stage, we have our insight from Mars title that we just created with animated story title and we still have goblin and we have been on the screen on the stage.

152

00:25:52.200 --> 00:26:04.980

Torey Earle: We did find out that if the ghost effect was changed my to that this would stay on the screen but say we wanted to get rid of it. We found out that if we change this to 10

153

00:26:06.180 --> 00:26:09.750

Torey Earle: Only clicked on the flag it would make it go away. So,

154

00:26:11.250 --> 00:26:15.360

Torey Earle: And then we have this broadcast the end at

155

00:26:16.560 --> 00:26:28.230

Torey Earle: After the title disappears. Let's see how this actually works, we're going to do is we're going to go here to goblin and we're actually going to go back to our first

156

00:26:29.340 --> 00:26:41.670

Torey Earle: Coding that we did with goblin but instead of one. The flag is clicked, we're going to put on here when I receive the message the end which is what we just created.

157

00:26:45.810 --> 00:26:49.890

Torey Earle: Go back to our first card. We had goblin white two seconds.

158

00:26:51.570 --> 00:26:57.270

Torey Earle: We had goblin say what is this doing

159

00:27:00.510 --> 00:27:02.340

Torey Earle: Big here.

160

00:27:03.510 --> 00:27:06.450

Torey Earle: Question mark for two seconds.

161

00:27:10.890 --> 00:27:17.010

Torey Earle: And then we had goblin wait another two seconds.

162

00:27:19.980 --> 00:27:22.020

Torey Earle: And we had goblin say

163

00:27:23.850 --> 00:27:25.620

Torey Earle: It looks

164

00:27:26.790 --> 00:27:27.570

Torey Earle: Scary.

165

00:27:34.110 --> 00:27:35.610

Torey Earle: Then we had ban.

166

00:27:36.720 --> 00:27:46.980

Torey Earle: When the flag was clicked start the conversation to. But again, instead of when the flag is clicked, we're going to wait until we

167

00:27:48.360 --> 00:27:53.010

Torey Earle: Receive the broadcast of the end in order to start the conversation.

168

00:27:57.480 --> 00:28:02.310

Torey Earle: We're going to go through our control. We had been white for four seconds.

169

00:28:04.650 --> 00:28:06.360

Torey Earle: And then we had been say

170

00:28:07.560 --> 00:28:10.440

Torey Earle: I don't know.

171

00:28:11.700 --> 00:28:12.930

Torey Earle: For two seconds.

172

00:28:15.120 --> 00:28:31.110

Torey Earle: So, now we have been with this code, we have goblin with this code, and we have our new sprite with this code. So, when we start by clicking the green flag, there should be a series of events that happens. Let's see what it does.

173

00:28:40.620 --> 00:28:48.450

Torey Earle: And then we stop and it reset hit our stop sign and it reset. So, when we click the green flag our insight from Mars.

174

00:28:49.710 --> 00:28:50.490

Torey Earle: Baby fades away.

175

00:28:51.690 --> 00:28:57.480

Torey Earle: Then when it broadcast the end, it gets to the end of this part in broadcast the end

176

00:28:58.560 --> 00:29:01.410

Torey Earle: And starts into our next set of code.

177

00:29:02.580 --> 00:29:15.000

Torey Earle: So, that way you can have a sequence of things happen when one ends, then another one starts. That's how the the end command are the broadcast command and the received command work.

178

00:29:16.770 --> 00:29:31.890

Torey Earle: In order to see what happens with our third coding challenge card, which is code a color change we're actually going to get rid of some of the things on our stage and I want to show you how to do that now.

179

00:29:33.420 --> 00:29:36.960

Torey Earle: You still see our code here from our sprite that we created.

180

00:29:38.310 --> 00:29:46.440

Torey Earle: In order to get rid of individual lines of code, you would click on it, drag it back over to

181

00:29:46.860 --> 00:30:01.800

Torey Earle: The code block storage area. But if you want to get rid of the whole thing. You grab it by the first action that is our first event that is triggered and then you can drag it over to the coding block area.

182

00:30:02.880 --> 00:30:05.970

Torey Earle: And if you notice that's going to get rid of all

183

00:30:07.920 --> 00:30:19.650

Torey Earle: Of the code for goblin and then if we want to get rid of goblin we come over here to our sprite area and we click on the trash can. That's at the upper right corner of that particular sprite.

184

00:30:21.690 --> 00:30:27.840

Torey Earle: Same thing with our insight from Mars. We're going to get rid of our code.

185

00:30:28.920 --> 00:30:33.540

Torey Earle: And we're going to get rid of our surprise, you're turning it over here to been

186

00:30:34.680 --> 00:30:53.430

Torey Earle: quicker way to do it. We can get rid of a sprite itself and it gets rid of the code at the same time. So, now we're left with our Mars rover that is on the screen and we are going to create a multi color effect for that particular sprite or that particular object.

187

00:30:54.570 --> 00:30:57.540

Torey Earle: So, we have chosen our sprite.

188

00:30:59.370 --> 00:31:04.560

Torey Earle: And first thing we do, we put an event in when the flag is clicked,

189

00:31:07.020 --> 00:31:13.110

Torey Earle: According to our challenge card we go to our code and we wait one second.

190

00:31:15.990 --> 00:31:18.330

Torey Earle: And then it asks us to repeat

191

00:31:20.850 --> 00:31:23.100

Torey Earle: For 50 times

192

00:31:26.070 --> 00:31:29.190

Torey Earle: A look that we're going to change.

193

00:31:31.380 --> 00:31:40.650

Torey Earle: Our color effect you see all the different things you can change here. You can change your color effect and they recommend by 20

194

00:31:42.570 --> 00:31:47.430

Torey Earle: So, as I click the green flag. Let's see what happens to our rover.

195

00:31:52.530 --> 00:32:00.660

Torey Earle: It repeated changing the color effect by 2050 times and you can see it just makes it look like it's flashing

196

00:32:03.000 --> 00:32:10.500

Torey Earle: So, that's a fun little activity or fun little thing that you can do, and you could actually link it to a

197

00:32:11.520 --> 00:32:18.690

Torey Earle: A broadcast and received command. As you can see, there are all kinds of things that you can do with

198

00:32:19.410 --> 00:32:30.630

Torey Earle: Scratch in making your stage and your final presentation do various things be interactive with each of the sprites in the chat or in the stage itself.

199

00:32:31.470 --> 00:32:47.580

Torey Earle: And at this time, just play with it a little bit. Use the the coding cards or the coding challenge cards and try to create your own story of what you would be sending back from Mars.

200

00:32:49.890 --> 00:32:57.480

Torey Earle: As you go through the insight from Mars activity, make sure to look at the reflection page on page 34 of your Facilitator Guide

201

00:32:57.990 --> 00:33:13.740

Torey Earle: Because each one of the activities that they do in Mars Base Camp can relate to the insight from Mars, they can provide information about their landing zone card that they got they can provide information about what it took to build a rover.

202

00:33:14.790 --> 00:33:25.680

Torey Earle: And they can also provide information about what they learned about crops on Mars. So, each one of those can go in this report that they're sending back to Earth from Mars.