

Mars Base Camp – Crop *Curiosity*

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00:00:09.059 --> 00:00:19.770

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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00:00:20.340 --> 00:00:27.360

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

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00:00:28.380 --> 00:00:39.270

Torey Earle: If you hadn't noticed this year, we're doing the 4-H STEM Challenge training, just a little differently. This third activity is called Crop *Curiosity* from the 4-H STEM Challenge.

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00:00:44.760 --> 00:00:55.740

Torey Earle: Our third activity in the Mars base camp experiment today is called Crop Curiosity and the goals and objectives of this activity in the experiment.

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00:00:56.190 --> 00:01:06.090

Torey Earle: Are you able to compare and contrast the environmental conditions between Earth and Mars to understand the conditions required for plant growth and development on Mars.

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00:01:07.680 --> 00:01:16.170

Torey Earle: described some of the natural disasters or other things that could happen to cause a crop, not to grow or to fail all on Mars.

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00:01:16.560 --> 00:01:26.280

Torey Earle: Can have a little fun here to us find the best strategy to win the game and to understand human nutritional requirements and how plants could be capable of growing

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00:01:27.630 --> 00:01:34.470

Torey Earle: Their Crop Curiosity is the Canasta based card game. And for those of you who have not played Canasta before

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00:01:34.860 --> 00:01:44.340

Torey Earle: The Facilitator Guide does go through step by step and gives you a very good explanation on how to do this. So what we're going to do today is

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Torey Earle: I'm going to actually deal a couple of hands of cards and then we will go through how you would play the game and how you would get tokens and things like that.

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00:01:55.170 --> 00:01:59.970

Torey Earle: But the full activity is going to take anywhere from 30 to 60 minutes

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00:02:00.810 --> 00:02:09.000

Torey Earle: Recommended the activity itself is 15 to 45 minutes depending on how long you play the game and then five minutes for an intro

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00:02:09.360 --> 00:02:22.680

Torey Earle: And about 10 minutes to reflect the end. So the Facilitator Guide would walk you through all this. And again, prevent scripts for you and things like that. But the materials that you're going to need to do the Crop Curiosity game.

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00:02:24.300 --> 00:02:35.760

Torey Earle: You'll need for each set of players now the recommended number of players is four per group, you can do it as a one on one player game.

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00:02:36.330 --> 00:02:51.870

Torey Earle: If you only have to use. But if you are working with the educator kit. It's designed for up to 12 so you could have three teams for each. So, you need one set of the Crop Curiosity cards per each team of two or four that are applying

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00:02:53.490 --> 00:02:58.320

Torey Earle: For each team of two or four that are applying you would need to have the module cards.

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00:02:59.520 --> 00:03:16.230

Torey Earle: You need one set of the marker chips and then one youth GAD per youth, that's going to be doing this as well as a score sheet for keeping score if that's the way you're going to play this particular game. There are several variations of it that we can talk about

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00:03:17.490 --> 00:03:28.140

Torey Earle: not included in the kit. But you might want to have on hand. If you're working with a group of youth, you might want to have main cards or table tents for them to name their teams. Also, you may want to have a pencil for scorekeeping

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00:03:29.280 --> 00:03:46.770

Torey Earle: The Facilitator Guide does give you a list of vocabulary words that will show you here and these vocabulary words are important vocabulary that you would want to emphasize that the youth learn from the this activity and experiment.

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00:03:47.820 --> 00:03:57.630

Torey Earle: Some of the questions that you might ask, as you start this is what are some of the things humans need to survive. Think about what you use and do every day.

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00:03:58.530 --> 00:04:09.780

Torey Earle: Like humans plants can also depend on certain certain resources for survival. What are some of the resources that you can think of for the plants to the to need to live and grow.

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00:04:11.220 --> 00:04:17.460

Torey Earle: Our if you've gone Pam plants in the past. What did you do kind of describe that this is some of that intro and

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00:04:18.120 --> 00:04:22.950

Torey Earle: Getting to know the different things that they're going to be learning about in this experience.

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00:04:23.520 --> 00:04:39.690

Torey Earle: We follow the four H motto of learn by doing. But we're going to call this learn by playing. So, let's move into this. Like I said, I'm going to do a couple of hands. And we'll see how you would collect cards and how you would play the game.

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00:04:41.940 --> 00:04:50.550

Torey Earle: To start the game, you're going to choose the scorekeeper if that's applicable for the style of game you're playing and a dealer before the first hand is dealt.

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00:04:51.450 --> 00:04:57.510

Torey Earle: Teammates should sit across from each other. And if you're playing one on one, your competitors will sit across from each other.

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00:04:58.350 --> 00:05:10.410

Torey Earle: Each team will get one of the module cards or each individual if you're playing one on one. We're going to module card and lay those on the table to put the marker chips on

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00:05:12.420 --> 00:05:24.330

Torey Earle: The preferred style three different preferred styles of games that you can play the module completion of a team or an individual would win by collecting all 10 component on the module card.

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00:05:25.110 --> 00:05:35.820

Torey Earle: Can play by points, the winner would reach 2000 points. First player still collect module cards and components, but the first 2000 points earns all the remaining components needed

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00:05:36.480 --> 00:05:45.720

Torey Earle: Or strategy. The winner is the first to collect all the module card components or to reach 2000 points. Therefore, earning the rest of the modules.

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00:05:48.210 --> 00:05:48.870

Torey Earle: The

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00:05:50.340 --> 00:06:01.020

Torey Earle: Starting of the game. Each person is dealt 11 cards and then there is a stockpile of the rest of the cards and a discard pile, which you would start like this.

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00:06:02.370 --> 00:06:08.190

Torey Earle: First part down as a wildcard, so that's going to be kind of handy for somebody

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00:06:09.360 --> 00:06:19.140

Torey Earle: But the idea of the game is in order to get a marker chip for your module card, you have to make a mill me LD.

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00:06:19.890 --> 00:06:30.420

Torey Earle: And the mail has to be at least three of the same matching cards so you can play some bell on the table at any time after you collect the cars during your term.

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00:06:31.170 --> 00:06:44.400

Torey Earle: And then you can continue to add cards to that you'll see in a few minutes that each of the cards has a point value to it as well as you would take your turn, you would look at your hand to show you here, see what we've got.

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00:06:46.080 --> 00:06:48.660

Torey Earle: All right, you notice in this hand.

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00:06:49.860 --> 00:06:57.150

Torey Earle: We do not have three of anything at this point. So, let's look at our other hand for other wire.

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00:06:59.280 --> 00:07:13.680

Torey Earle: And say this person was the the first person to start what they're going to do. They would either draw card from the stockpile or they would pick up all of the cards in the discard pile.

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00:07:14.580 --> 00:07:24.480

Torey Earle: So, I'm going to draw a card from the stock out, you can say that it's water. I do not have any more water in my hand. But I do have to

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00:07:25.140 --> 00:07:37.890

Torey Earle: Fertilizer cards and a wild card. So, that would be a male that I could lay down you can play no more than two wild cards together in a male of at one time. So, with that,

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00:07:39.000 --> 00:07:42.780

Torey Earle: Would be this side fertilizer. I will get a marker chip on fertilizer.

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00:07:43.980 --> 00:07:55.530

Torey Earle: All right, and then I would discard one. So, looking at this hand don't have anything else that would match with anything. So, I'm just going to discard containers.

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00:07:57.360 --> 00:08:00.510

Torey Earle: Next player would play, they look at there's

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00:08:03.810 --> 00:08:12.090

Torey Earle: They could actually do since they have a wild card as well. We could do to waters and a wild card.

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00:08:13.440 --> 00:08:17.910

Torey Earle: And they would get their martyr chip for water then

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00:08:20.670 --> 00:08:21.510

Torey Earle: They actually

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00:08:22.950 --> 00:08:25.500

Torey Earle: I should have drawn. First, but I'll put that there.

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00:08:27.000 --> 00:08:30.510

Torey Earle: And then I would discard something that I didn't think I needed at the time.

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00:08:31.710 --> 00:08:34.530

Torey Earle: So, we'll go with an atmosphere generator

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00:08:36.150 --> 00:08:38.100

Torey Earle: And the play just keeps happening like that.

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00:08:41.790 --> 00:08:54.270

Torey Earle: would draw card plant seeds, do not have anything to match that. But what I'm going to do now is I'm going to put down a disaster card that disaster card means that

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00:08:55.440 --> 00:08:59.460

Torey Earle: Person playing this hand could not pick up the discard pile.

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00:09:00.690 --> 00:09:03.900

Torey Earle: It would have to rotate again, they would have to draw from the stockpile.

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00:09:05.400 --> 00:09:09.420

Torey Earle: So, I'm going to look at this one to draw from the stockpile.

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00:09:11.070 --> 00:09:14.940

Torey Earle: We're going to tell us, do not have anything that would work with that.

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00:09:16.260 --> 00:09:36.180

Torey Earle: So, we'll put the trellis back down and play just continues like that until all the module cards would be full or you would reach 2000 points or either 2000 points or module card fall whichever one with the three different styles of gameplay.

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00:09:37.230 --> 00:09:37.530

Torey Earle: Now,

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00:09:38.550 --> 00:09:51.600

Torey Earle: Teammates can say this was my teammates card if we were playing for and I had a water in my hand. I could actually add a water to that and

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00:09:52.950 --> 00:09:57.870

Torey Earle: What you would do with that is you would actually try to

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00:09:58.950 --> 00:10:03.570

Torey Earle: Get a Canasta which is seven cards of the same type.

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00:10:05.250 --> 00:10:08.160

Torey Earle: And if a team or a player gets a Canasta

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00:10:09.180 --> 00:10:19.410

Torey Earle: They choose one of the following that they can do. They can actually steal a module from an opposing team stolen marker. It's got to be placed on the same module on their card.

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00:10:20.970 --> 00:10:23.610

Torey Earle: You won't you won't receive the points from those cards.

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00:10:24.720 --> 00:10:32.100

Torey Earle: They can collect a module or components. You have to be used on a needed component so they can just get a module chip without stealing it.

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00:10:32.970 --> 00:10:45.600

Torey Earle: They can pick up the full discard pile or they receive 500 bonus points. So, keeping that in mind it's, it takes a little bit to get the feel of how to play but

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00:10:46.410 --> 00:10:58.920

Torey Earle: As you would play this. It does teach you a little bit about what you need would need on Mars to make a crop or to get a sustainable food supply.

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00:11:00.060 --> 00:11:00.810

Torey Earle: The

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00:11:02.070 --> 00:11:09.270

Torey Earle: It let you have a little fun while you're you're learning about this and it encourages some strategy in some gameplay.