



Transcript for the [Video:](#)
Investigating...Nature

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Teacher: Do you know what these seeds are for, Anna? These are called herbs. Does anyone know what an herb is?

Niloufar Rezai, Director: An investigation consists of selecting a topic and investigating it or really learning as much as we can about the topic over a long period of time. We had a giant post-it with different ideas, and then we asked parents to select one and we also left a blank space for them to write their own.

Cynthia DeJesús, Preschool Teacher: We actually included the parents in choosing the investigation topic, and then each classroom chose where they wanted to take the nature approach.

Claudia Ahern, Preschool Teacher: Nature just lends itself during the summer. They just thought it would be perfect for the teachers to go in different directions, and with nature it was just endless.

Amie Theriault, Toddler Teacher: We thought it was a really good time of year for it. We knew we could do a lot of planting and what-not with the kids, and it's just all around them this time of year.

Claudia: James, would you like to water the flowers and the vegetables?

Child: Sure.

Claudia Ahern: We decided we were going to start with gardening. They didn't have the background knowledge of what a raised bed garden was, so we visited the gardens. Each child was able to plant a vegetable and a flower.

Child 1: Tomatoes!

Claudia: Look!

Child 2: The tomatoes are already big?

Claudia: The tomatoes are coming out!

Claudia Ahern: The children would go out approximately twice a week and we would weed the garden. Any part of the gardening, they did.

Claudia: Alright, let's get these weeds. We can make a pile.

Amie Theriault: We thought about all the different things we wanted to put in the garden and we had seed packets, so we showed them the pictures.

Amie: Alright, let's look at another one. What's this?

Boy: A flower seed!

Amie: A flower seed!

Amie Theriault: We compared the seeds. We did a lot of comparing, so we shook them...why do you think this one sounds different than that one? Do you think the seeds will look the same? Do you think they'll look different?

Amie: That's a big, white seed. Now what's in this hand?

Child: Little seeds.

Amie: Little tiny seeds. I wonder if that's why they sounded different?

Amie Theriault: They were able to see the seeds were all very different, and we took them outside and we planted them in our garden.

Niloufar Rezai: There were so many opportunities for science experiences during our nature investigation—predicting, observing, identifying,

Cynthia DeJesús: We had a big discussion: if you find an insect that's not alive, we can bring it back to our classroom and observe it. They really enjoyed that because they got to see hands-on a dead insect and to manipulate it and look closely at its body parts.

Claudia Ahern: The children learned to gain sensitivity and respect for the insects and that when they see an insect, their first instinct shouldn't be to step on it.

Claudia: See how it has a little, teeny piece of sand? He's coming out.

Child: That's just like a snowball!

Claudia: It kind of does look like a snowball. Now look what happens. When he gets all the way to the top.

Amie Theriault: I did quite a bit of research on different experiments I could do that would be developmentally appropriate for that age. We went on a water hunt. And they found, there's water in the fish tank, there's water in the sink, there's water in the bathroom. And then my next question was, well what do we use water for?

Amie: We said what do we use water for? We said, swimming, we also said growing plants, drinking, washing, and playing.

Amie Theriault: And so I posed the question, can we wash without water? Could we clean our hands without the water? So we did an experiment in which they got really dirty and they stuck their hands in soil. Then I handed them each a paper towel and I said ok, clean your hands.

Ana: Mine aren't clean.

Amie: Wait a minute. What'd you say?

Ana: Mine isn't clean.

Amie: It isn't clean? Show your friends. Do Ana's hands look clean?

Amie Theriault: Then they had the opportunity to clean with the water. They realized that we really did need the water for washing.

Amie: Did the dirt go away?

Ana: Yeah.

Amie: How come?

Ana: Because.

Amie: Because why?

Ana: Because I didn't like the dirt.

Amie: You didn't like the dirt? You had to get it off? What did you use to get it off?

Ana: Water.

Amie: Ah!

Niloufar Rezai: There were many opportunities to incorporate literacy into this investigation.

Claudia Ahern: We created a web, and then every child has a chance to say what they know about worms.

Claudia: Anthony, what do you think you know about worms?

Child: They slither like this.

Claudia Ahern: It gives teachers an idea of where we have to begin. We began by reading several non-fiction books about worms.

Claudia (reading): "Worms need food just like you do. But they eat dirt and rotting leaves."

Claudia Ahern: The children learned that worms don't have eyes or ears, but they have a mouth. And then they learned how to tell the head from the tail and different body parts.

Claudia: The head is closest to where that bump is. So this is the head of the worm. This is the tail of the worm.

Claudia Ahern: Bringing out real worms is what you want to do as a preschool teacher. You want them to touch and feel, and get that experience. The next time they see a worm, they're not going to be afraid.

Niloufar Rezai: We were able to incorporate art into our nature investigation in a variety of ways.

Teacher: Which insect are you going to create?

Child: Butterfly.

Cynthia DeJesús: We wanted the children to create their own insects with what they know about it.

Teacher: I see the abdomen. Where's the thorax?

Child: I did the thorax already.

Cynthia DeJesús: She asked them to make your sketch first to make sure they had all the right body parts, and then take the materials and see if they can replicate what they sketched.

Child: One, two, three, four, five, six.

Teacher: I see one, two, three, four, five six.

Claudia Ahern: We asked the children what they liked about nature. And then we explained to them that they would be able to create their own painting. Saevion created a mountain. Anthony made a cardinal, and Kaya created a rainbow. I absolutely love them.

Amie Theriault: We got into the functions of the parts—what is the root for, what does it do? And so we got into, this is for bringing the water to the plant. I figured hosta leaves would be good because they're big and you can really see the veins in the leaves.

Amie: Why do you think it feels bumpy? Take a close look at it. What's this?

Amie Theriault: We were able to have a conversation about how the plant needs to eat the water and the water will cool off the leaves so they don't get too hot in the sun. So we did rubbings to preserve what we saw with the veins.

Amie: What do you think made those lines?

Child: The leaves.

Amie: The leaves, the veins.

Niloufar Rezai: We also took advantage of the community we live in during the nature investigation. One class visited a garden center.

Cynthia DeJesús: They let us walk through and see all the materials that were there. There was soil and pots and everything that the children needed. That led us back into our gardening web of what we might need, which led to our dramatic play center for a gardening store.

Cynthia: Alright, let's go over and see what we have so far and I want you to think of something, if we're missing anything. So in our garden store you said we need flowers, trees, seeds...

Cynthia DeJesús: In our classroom, the children are really heavily involved with the dramatic play center and they come up with the ideas; they come up with the materials that we use in there. For about two weeks the children make the items. And then the grand opening of the gardening center—which I think is the most integral part of the dramatic play.

Cynthia: I want you to pay close attention to what her job is and what my job is, okay? And watch what we do.

Teacher: So I'm the clerk of the garden store. So the first thing I'm going to do is make sure that my sign says "Open."

Cynthia DeJesús: I think it's so important that teachers model how to use the center, because although they were part of making the items, they still don't know how to really use them.

Cynthia: I was wondering if you had some of these items in your garden store.

Teacher: Sure, well let's take a look. Here, why don't you take this basket with you so as you find the things you need, you can place them right in there.

Cynthia: Okay.

Teacher: And what was on your list?

Cynthia DeJesús: I wrote down the things that I wanted and I brought it to the clerk, and that way the children can know that the paper and the pens and the writing are used for that purpose.

Child: Sam, come here. What do you need?

Cynthia DeJesús: What I think children got most out of this nature investigation is an appreciation of nature and the environment around them.

Claudia Ahern: I think what I learned is it's okay if someone asks me a question and I don't know the answer. Because with nature there's so many things to be knowledgeable about. It's okay as a teacher to say, you know, I don't know what the answer is to that, but we could find out.

Amie Theriault: I learned never to underestimate the toddlers. If you execute it the right way, they are really capable of learning anything.

Niloufar Rezai: I have learned that you don't need expensive fancy teacher gadgets in order to have a creative classroom. Children, families, teachers are finding things that are related to nature. These items are raising children's curiosity.

Child: Guys, guys! I found nature!

Claudia: What'd you find?

Child: A ladybug!

Niloufar Rezai: I love hearing children saying, "When you're outside walking or running, be careful; don't step on it. It's nature!" Whereas before this investigation, they'd see an ant and they'd say, "Squish, squish it!" They don't do that anymore.