# Kindergarten Integrated English Language Development in Science: Causal Explanation About Sea Otters in Their Habitat

## Introductory Slides (00:00–02:28)

**Narrator:** Welcome to the California Department of Education Integrated and Designated English Language Development Transitional Kindergarten through Grade Twelve Video Series.

**Narrator:** Science with Integrated English Language Development in Kindergarten. In this lesson, the students are in the middle of a science unit on marine ecosystems. At the end of the unit, each student will write and illustrate a book in which they describe sea otters and their habitats, explain why the animals are critical to the ocean ecosystem, and communicate why ocean ecosystems should be protected.

**Narrator:** The California Next Generation Science Standards Driving the Lesson. The Science Performance Expectation is Kindergarten, Earth and Space Science 3, Sub-Item 1: Earth and Human Activity, where students who demonstrate understanding can use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. Watch for how these California standards are addressed throughout the lesson.

**Narrator:** The Supporting California English Language Development Standards used in Tandem with the Science Standards. The English Language Development Standards at the Bridging Level are: Kindergarten, Part 1, Standard 1: Exchanging Information and Ideas, where students contribute to class, group, and partner discussions by listening attentively, following turn-taking rules, and asking and answering questions; and Kindergarten, Part 2, Standard 6: Connecting Ideas, where students combine clauses in a wide variety of ways to make connections between—and and join—ideas in shared language activities guided by the teacher and independently. Watch how students move from early levels of proficiency toward the Bridging Levels of these English language development standards throughout the lesson.

**Narrator:** Watch how the teacher leads the students toward accurate expression of their science content knowledge by providing opportunities for them to listen to the language. Then watch how the teacher provides opportunities for the students to speak with their peers using learned causal explanation language features to explain about sea otters and their habitat.

## Teacher Introduces the Lesson (02:28–04:32)

**Teacher:** Emiliano, I see you pointing right here. [Teacher points to a picture on large graphic organizer that shows causes and effects on the food web if there were no more sea otters.]

**Student 1:** No, I was pointing to the sea otter.

**Teacher:** Oh, you were pointing to the sea otter?

**Student 1:** Yeah.

**Teacher:** Okay let me read this again. “Then the sea urchins will eat all the kelp because this is their diet.” Was that about the sea otter?

**Student 1:** [Shakes his head]

**Teacher:** Now Emiliano, I agree with you. Since it's a cause and effect, this would not happen if the sea otters weren't extinct. So, it is important that when we look at this causal, or causal explanation, this cause and effect, it starts with the sea otter. I agree with you. And the first sentence, or the second sentence, says that. “Without sea otters there are too many sea urchins.” And then the sea urchins eat all the \_\_\_\_\_ .

**Students:** Kelp.

**Teacher:** Okay. So now we need to think about what do we need to write next. Follow me. [Teacher follows the graphic organizer of causes and effects with her finger.] Ooh, I see you following me with your eyes. Okay. Think in your brain. What happens next? What do we need to write? And boys and girls, I need you to look at me for a second. Because when we write a causal explanation, we also need to use the \_\_\_\_\_\_.

**Students:** [choral response] language features.

**Teacher:** Of a causal explanation. And we have them up there on our chart, but I also wrote it down here for us. “Without \_\_\_\_\_\_ there are \_\_\_\_\_\_\_ because \_\_\_\_\_\_.” Can you read that with me? “Without \_\_\_\_\_\_ there are \_\_\_\_\_\_\_ because \_\_\_\_\_\_.” So, when you talk to you partner in just a moment, Ethan, you're going to use those language features. When you talk about what would happen next.

## Students Discuss in Pairs and Triads (04:32–05:30)

**Student 2**: The alive animals, they are, there all that's left is sea stars, and sea, what is that called right over there?

**Student 1:** Um, it's sea urchins.

**Student 2:** What do you think?

**Student 1:** Um, I think, I think, without the shark, the sharks eat crabs and fish. What else do you know?

**Student 3:** Um, um, with the fish and they’re extinct, the, the large animals don't have any food.

**Student 4:** What else?

**Student 5:** Without the kelp, they are no more small animals and because they have no more food.

## Students Share Out with Whole Class (04:31–06:57)

**Student 1:** Without kelp there's no more, there's no sea animals.

**Teacher:** Would you agree with Emiliano?

**Students:** [Use a gesture to agree.]

**Teacher:** Ava, what did Emiliano say?

**Student 6:** He said without kelp there are no more small, um, small sea animals.

**Teacher:** Thank you Ava. You were listening and you could repeat what Emiliano said. Now who can explain to me why? Because the language of cause and effect is not just "without \_\_\_\_\_\_\_ there are\_\_\_\_\_\_\_. Because . . .” Mustafa, why? Because . . .?

**Student 7:** Because they, the big animals have nothing to eat.

**Teacher:** Because the small animals have nothing to eat. Because what do they eat?

**Students:** [multiple students answer] They eat kelp.

**Teacher:** The kelp.

**Student 8:** And sometimes they lay their care, they make, they lay their care there.

**Teacher:** They lay their eggs? Sometimes, too. So, without the kelp they would be gone. So, should we write, “Without kelp there are no more small sea animals, because they have no more food.” Show me if you agree. Or disagree.

**Students:** [Use gestures to agree or disagree.]

Thank you Charleton, you are agreeing. Thank you, Jaden. I see you agreeing.

## Looking Deeply at Classroom Instruction (06:58-07:15)

**Narrator:** Watch how the teacher leads the students to use causal explanation language features to explain about sea otters and their habitat. Then watch the teacher provide the students opportunities to write collaboratively, eventually leading them to write independently.

## Teacher Prepares the Students for Writing (07:16–07:52)

**Teacher:** Echos on.

**Students:** [Choral response] Echos on.

**Teacher:** Without kelp

**Students:** [Choral response] Without kelp

**Teacher:** there are no more

**Students:** [Choral response] there are no more

**Teacher:** small sea animals

**Students:** [Choral response] small sea animals

**Teacher:** because

**Students:** [Choral response] because

**Teacher:** they

**Students:** [Choral response] they

**Teacher:** won't find

**Students:** [Choral response] won't find

**Teacher:** food.

**Students:** [Choral response] food.

**Teacher:** Echos off.

**Students:** [Choral response] Echos off.

**Teacher:** Okay. Without what? Without \_\_\_\_\_\_.

**Students:** [Multiple students answer] Food. Plants. Kelp.

**Teacher:** Without \_\_\_\_\_\_\_\_. [Points to graphic organizer]

**Students:** [many students in unison] Kelp!

## Students Write with Teacher Support (07:53–09:24)

**Teacher:** Let's write “kelp.” “Kelp” is right here. [Points to graphic organizer] Or we can even sound it out. K–e–l–p. Kelp. [Teacher writes the sentence students are verbalizing. Students take individual notes and write using clipboards on the rug.] We read.

**Teacher and Students:** [Students read as the teacher points to the sentence she just scribed.] “Without kelp there are no more small sea animals because they have \_\_\_\_\_.”

**Students:** no

**Teacher:** no

**Student:** [Spells ‘no’] N-O.

**Teacher:** No what?

**Students:** [Choral response] no more.

**Teacher:** No more. We already have “more.” More.

**Student**: Food.

**Teacher:** No more what?

**Students:** [Choral response] Food.

**Teacher:** Food. I heard Nadia say, "I used the sentence frame to help me write." Look at all the words that are up here. “Without \_\_\_\_\_ there are \_\_\_\_\_ because \_\_\_\_\_.” Does that help you?

**Students:** Yeah.

**Teacher:** Would you like to try what Nadia tried?

**Students:** Yeah. [Students read along with the teacher.] “Without small sea animals there are no more large sea animals, because they have no more food to eat.”

**Teacher:** Ohh, wait a second. I just found another strategy. Look, “because they have no more food to eat.”

## Closing Slides (09:25–10:40)

**Narrator:** Reflection and Discussion. Reflect on the following questions: First, how did you observe the following focal content standards and supporting English language development standards being implemented in this kindergarten integrated English language development lesson? Earth and Space Science 3, Sub-Item 1: Earth and Human Activity; English language development Part 1, Standard 1: Exchanging Information and Ideas; and Part 2, Standard 6: Connecting Ideas. Second, what features of integrated English language development did you observe in the lesson? Now, pause the video and engage in a discussion with colleagues.

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