

Lesson: Comparing the structures and functions of crayfish and land snails
Teacher: Kim Nickerson
Video URL: http://education.ucsc.edu/ellisa/case_studies/comparing_structures.html
Clip: Part 3 Writing and Lesson Closure

Abbreviations:

T = Teacher

S = Student

Ss = Students

Transcript

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[00:00]

T: So up here, those of you that are pretty sure you've thought of most of the stuff you could think of. You have used your crayfish structure or diagrams as a kind of a checklist make sure you have included them and had enough ideas. I want you to turn, not yet listen to the directions. I want you to turn; this diagram will get turned over. You don't have to do that yet. This is a hard task that I'm going to ask you to do. It's going to take a lot of thinking, so I need your full attention. I'm going to ask you to write at least three sentences. So my expectation is that you have at least three sentences. You could get a five if you had more than three. So I want you to write three sentences explaining how the crayfish and the snails are similar and different.

[1:16]

T: Remember is similar is close to same and different is not alike. Here's an example of a sentence you could write. Crayfish and snails are similar because they both have shells that protect them from predators. I would expect three ... thank you for asking ... three from your own brain. You could although write a sentence about how those two shells are different though. Let me give you an example of sentence for different.

[1:57]

T: Crayfish and snails are different because crayfish have walking legs to help them move but the snails have one foot.

S: They have one flat foot.

T: That's how they would be different. Three sentences ... if you finish early ... on another part of your paper, write a few questions about what you would like to know. What are you still wondering about? For example, Calvin had mentioned a question in our science talk. So these are for the early finishers.

[3:08]

T: If you had time you could go back and look at some of the other ones. You got some key ones. So do you want to think first or talk out the sentences first about how they are similar or different?

S: The snail is different because one ... and one ...

T: I do want you to say how they are sliding. The word cuz is because, good job. Can you tell me how their shells are different?

S: ...

T: Nice, so you used that thought but you are thinking deeper about they use those shells. So write that exactly. Nice.

[4:14]

T: So how is it going over here?

S: I just need one more function.

40 T: So thank you for explaining what the function is, you can actually extend that. You are
41 going to do all these similar? Are you going to do few about differences? Then you
42 would talk about the differences ... so you have a plan. Let's get you one more sentence
43 because you have two now. They both have their shells for protection when a predator
44 comes, the snails ... And then, the crayfish shell could be hard or soft. What about the
45 snail shells? So maybe add that part on there.

46 [5:36]

47 T: Your notebooks you know where they go? Your Venn diagram needs to be handed to
48 your team captain ready to be handed in. What do you think?

49

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51 [5:57] Lesson Closure

52 T: Like I said, if you needed some time if you were working on some questions and you
53 want to make sure to get those on your paper, we'll have a little more time later. So let's
54 go back to our focus question. How do structures of a crayfish and a snail compare?

55 S: [students discussing with each other]

56 [7:35]

57 T: Let's get a sentence starter here. So, you could say some structures are similar ... let's
58 just share some ideas about similarities. Christian?

59 S: Eyes.

60 T: Eyes. Maria?

61 S: Shell.

62 T: Brittney, I heard you sharing one.

63 S: Mouth and head.

64 T: Some structures are similar like eyes, head, and shell. Other structures are very
65 different. Like, Leo, what's one structure that's very different?

66 S: The legs.

67 T: The legs the walking legs and the foot. Marisol? Sam?

68 S: Tentacles

69 T: Yes, the antenna and the tentacles. Brianna?

70 S: ...

71 [9:48]

72 T: Right, we learned that word for two very different animals. The crayfish have an egg
73 pore and the snails have a respiratory hole or a breathing hole. So, like tentacles, walking
74 legs, and an egg pore. Since egg starts with e we put an. I hope for the rest of your life
75 you are observing organisms that you think a little bit deeply about, and question what
76 structure does that organism have? And what functions do those structures have? How
77 can that help them survive? Maybe think a little bit about behaviors. We studied a lot of
78 behavior of the crayfish.

79 [11:20]

80 T: I have a final question though. What's been interesting or surprising about snails that
81 you have learned?

82 S: Surprising?

83 T: Yes, interesting or surprising, go ahead and talk with your partner. You'll need to get
84 a new partner. Brandon can you talk please. Marie both members please.

85 Ss: [Students discussing]

86 T: Why don't you start it off? Keep going.
87 Ss: [Students discussing]
88 T: You can finish your thought and then turn back that's okay.
89 [13:10]
90 T: Alani what did you find interesting or surprising.
91 S: Left handed or right handed ...
92 T: I learned that in the science talk today I had. Yeah, and all of our observations I didn't
93 even noticed that the coil might have been on one side or the other. And, now that's
94 going to make me look even closer at our crayfish and our silk worm. Jasmine thank you
95 I saw several heads turn back toward Jasmine.
96 [13:47]
97 S: ...eye spot, I saw it go back
98 S2: ... it's like a big black line ... like a skinny cylinder ...
99 T: I was just letting Calvin finish his conversation with Lauren. Annie, what did you find
100 surprising or interesting?
101 S: I never knew that they had ... at all
102 T: Yeah, similar huh? I didn't know that either I thought that was really, really
103 interesting. I don't think I wondered how they breathed. Ulysess?
104 [14:57]
105 S: I think the heart is outside the body.
106 T: Where is it?
107 S: When I picked it up I saw the heart on the outside.
108 T: What did it look like?
109 S: Like a [sponge]
110 [15:21]
111 T: He's asking you a question, we could do little bit of investigation to see what he had
112 observed. I am curious I would like to do little bit more investigating about that.
113 Absolutely. I did hear several people mentioning ... I think it was Alexia and Alina ...
114 how the snail eats it has that radula, the tongue is helping them eat. I learned something
115 that was really interesting ... I'll wait ... one thing I heard was interesting and then it
116 reminded me when I hear Alexia and Alina was, Jeff hates snails he wants them out of
117 our garden he wants to try to kill them all the time.
118 [16:41]
119 T: and Alina shared with me yesterday about ...
120 S: my ... puts salt on them and they bubble up and flip over
121 S2: They shrivel up.
122 T: Lauren had just something, because they eat your garden. So, a lot of people think of
123 snails as pests. I didn't realize how snails are very, very, very useful and important to our
124 environment and to our gardens. Yes, they will eat some of our fresher leaves a lot of
125 Natalie had mentioned you need to open up the leaves where the dry and dead leaves
126 were ... they are decomposers. They help break down the dead leaves. Then, they
127 actually make the soil healthier. Because, through their scat, or poop, they are replacing
128 they are putting all the nutrients being into the soil. Which actually helps our garden
129 grow.
130 [18:21]

131 T: I did explain it to him. He is being more tolerant, accepting of snails but that was a big
132 aha moment for me. I've always thought of them as sort of a pest. As humans we just
133 think, 'oh they are eating our garden' but how important this organism but all organisms
134 are they have a place in our environment. But, we need to think about that before we go
135 and destroy them.

136 S: We should think about what we do before we do it.

137 T: We should do some investigating before so maybe what we can do Alina you can
138 educate your family on how useful the snails are. And why we really do need them.

139 When I give the signal word you have about 25 minutes to finish publishing.

140 Coelenterate: sack body, one mouth.