

Lesson: Meet the crayfish lesson
Teacher: Kim Nickerson
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Clip: Part 4

Abbreviations:

T = Teacher S = Student Ss = Students

1 [00:00:05]

2 T: So can I give you some instructions real quick and then I'll listen to you think because it's
3 probably exactly what you can put here. So now that you've talked for a little bit, you're going to
4 list three of the crayfish structures and describe each one's functions. So you see the blue paper,
5 Tatiana and Sam, you can use those sentences to help you write complete sentences, okay? So
6 what were you thinking?

7 S: I was thinking that since there is a little thing, I think that's where they get their [???].

8 T: So, we're not sure what that's—that's actually called the egg pore [???]. So you could write—
9 if you use that—one structure is the egg pore. Its function is to lay eggs. Right? Does that make
10 sense now? I'll come back and check on you, okay? But you can work together? Okay?

11 [00:01:04]

12 S: One structure of the crayfish is the eyes.

13 T: We can say that. Or the pincers.

14 S: The function of the eyes is to...

15 T: The function of the pincers is to grab stuff, okay?

16 T: Okay, what I am going to do while we're waiting is that for those you who are finished, I
17 thought what we could do was just write—now that we've spent a lot—write some questions.
18 What I'm trying to say. Ask some questions. And Natalie, can you go collect the crayfish now?
19 So I just want you to think about what you are wondering about the crayfish now. What do you
20 want to know about the crayfish? What do you want to know?

21 [00:02:02]

22 T: Okay, I think what we're going to do is hand your papers to your table captain and as soon as
23 you have done that, please join me on the carpet facing the glad way. So, I just wanted this, this
24 is the very beginning, and I wanted to capture some of our questions. I've been hearing so many
25 questions. What do we want to know about the crayfish? What are we wondering about?
26 Brittany?

27 S: What do they eat?

28 T: *[writing on board]* What do they eat? Christian?

29 S: How long does it take for a claw to grow back?

30 T: *[writing on board]* How long does it take for a claw to grow back? 'Cause we're missing one,
31 right? Marisol?

32 S: How long can they live?

33 T: *[writing on board]* How long can they live?

34 [00:03:12]

35 T: So we're thinking of the lifespan huh? Angelo?

36 S: How long can they be out of water?

37 T: *[writing on board]* How long can they be out...of water? Interesting things. I see several that
38 we're going to talk about later. Jasmine?

39 S: How long before eggs could hatch?

40 T: *[writing on board]* How long does it take for their eggs to hatch? Okay. I just wanted to
41 capture some questions. In your notebooks, after we do the next part, you're going to get a
42 chance to write in your science notebooks about your questions, okay? Brandon, Natalie, can you
43 join us quickly?

44 [00:04:16]

45 T: We're going to need your thinking here. Alright. So let's go back and think about our two
46 focus questions. I'm going to give you some "think" time. First, what are the structures of a
47 crayfish? Can you go and share with a partner?

48 Ss: *[students talking to each other]*

49 T: Alright, Ulysses, what's a structure?

50 S: An egg pore.

51 T: An egg pore! Natalie?

52 S: Um...carapace?

53 T: The carapace! We know the scientific word now, huh? Metine?

54 S: Pincer.

55 T: Pincer! Right? So let me show you how we would write this, okay? How about real quick—
56 hurry Brianna, Alina, Anna, Angelo.

57 Ss: Um....the legs. The tail. The ab-do-...abdomen.

58 [00:05:24]

59 T: The abdomen? So...as you know when we're answering a question, we can use the words
60 from the question to help us. So we might say, or write, *crayfish have many...*

61 S: structures.

62 T: Excuse me. Thank you for editing for me. *[writing on the board] Crayfish have many*
63 *structures.* Now we're just going to list a few so you could say *such as the egg pore, comma, the*
64 *leg joints, and pincers.* Okay?

65 [00:06:20]

66 T: Just give 3 examples is pretty good for us to remember what a structure is, right? Alright, the
67 next question, give you a little bit of think time, what are the functions of each structure?
68 Function being what it does. Go ahead.

69 Ss: *[students discuss and chat among themselves]*

70 T: You can start, Sam. What's one of the functions? Of a structure.

71 Ss: Maybe the shell...[???]/[???] antenna

72 T: What's the function of the antenna?

73 S: They can sense...

74 T: They can sense...,maybe hear? We're not quite sure yet, huh? But it might sense? Yeah!

75 [00:07:16]

76 T: What are the functions of the structures? Or of each structure? Know if I really like the word
77 "each" there, but...Leo?

78 S: The pincers are for grabbing prey [???]

79 T: Yeah, grabbing food, tearing it, ripping it and then defending itself against predators, right?
80 Trying to go with people who haven't shared yet. Alina?

81 S: I think the antennae are not for hearing, but when I was looking at my real crayfish, I saw the
82 antennae moving and I think they're for waving.

83 T: And so what would the function of it waving be? Alina? I'll wait.

84 [00:08:07]

85 T: Thank you those of you that have your attention on the speaker. Alina what would the
86 function of waving be? What would the purpose be?

87 S: To say hi to other crayfish?

88 T: So we would call that communicate?

89 S: Yeah. Like how other bugs wave with their antennae.

90 T: And Jessie? Can you add on? I know that you and Sam were talking about the antenna.

91 S: Um...it can probably sense other objects for danger?

92 T: So we have food, defending or protecting itself, we have sensing danger or other crayfish or
93 communicating...

94 S: [???

95 T: Yeah. What else? Christian?

96 [00:09:05]

97 S: Uh, I think that maybe, um, the crayfish...[???] I think the crayfish can sense...

98 T: We call that a hypothesis and why? What are you thinking?

99 S: I think...

100 T: What were some of your evidence?

101 S: Um...I was going behind it, the crayfish and I, and um, I touched the water and it made like a
102 little wave and it turned around and it followed the waves. Like it...[???

103 T: So you're saying—is it—is this what—let me see if I can imagine. The crayfish was facing
104 this direction, you put your finger in the water behind, it turned toward your hand?

105 Ss: *[students murmuring what they saw]*

106 T: Natalie can you add?

107 [00:10:11]

108 S: When he touched the water, it made wave vibrations. [???

109 Ss: *[other classmates/students adding in or talking]* Think it's scared.

110 T: Hm...So...I know you this was kind of a question...can we put it right here? Like...

111 Ss: *[murmuring]*

112 T: Look at Eddy when we say this. What did we learn? The crayfish—would it be accurate for us
113 to say that the crayfish can sense? What do you want to say or how do you want to say it?

114 S: I think that...[???]...we can say the crayfish has a sixth sense.

115 T: Do we know that for sure? And that's why you said it was a question. Should we put it in
116 question instead?

117 S: *[murmuring]*

118 [00:11:19]

119 T: So could it be using...could...well the reason I'm wondering is as...that the fact...and I don't
120 know, I'm just wondering...if it is a sixth sense or if they're using one of the other five sense.

121 S: I think it just is a sixth sense.

122 T: Okay, so *you* think that. Well we'll put that as a question and I think that we might need to
123 maybe do a little more research on that. I'm not sure.

124 S: [???] another animal, they have like little dots and when you poke the water it's suppose to
125 sense you...[???]

126 [00:12:02]

127 T: And now...yeah...so maybe that could be a function of that. Right? So...if we think of the
128 function of some of these structures, if we think about defending itself against its predators, if we
129 think about food, Jessie, right? If we think about sensing or communicating, these are all thing
130 that the crayfish uses to survive. Right? So maybe that could be the purpose of all—or the
131 functions of all the structures is to help the crayfish survive. So I would say structures have
132 functions to help the—oh I'm going to use our new vocabulary term—the organism survive.

133 [00:13:18]

134 T: So structures have functions to help the organism survive. And for example, we have learned
135 that with—how to use our for example in our cooperative paragraph right? For example, oh boy,
136 I was combining my next word already. Have you done that before?

137 Ss: *[chatting among themselves]*

138 T: For example, the crayfish uses...did we want to say antenna, pincers, what's an example—

139 Ss: *[unanimously]* Pincers!

140 T: Pincers? Uses it's pincers to grab and tear food. That's one way to survive. We need food to
141 survive. Organisms need food to survive, right?

142 [00:14:22]

143 T: Uses its pincers to grab and tear food. And! Do you want to say defend or protect?

144 Ss: Defend!

145 T: Defend itself against predators. That's it. You just have to put an example. We kind of
146 followed the same the same pattern.

147 [14:53]

148 Alright. Final thoughts? Final thoughts on something you personally learned today? Someone
149 else might have noted, but what did you personally learn today? Go ahead and talk with a
150 partner?

151 Ss: *[discussing among themselves]*

152 T: What are some of the things you learned today?

153 [00:15:19]

154 T: What's something you learned, Marissa?

155 S: [???] Even though crayfish doesn't have one claw, it can still move fast.

156 T: So I'm going to skip this in case we can use it. A crayfish has only one claw, it can still move
157 fast. Important, right? If we think back to surviving, imagine how easy it was for a crayfish to
158 lose one of its pincers. What—if it didn't have the ability to still move fast, right, it wouldn't
159 survive.

160 [00:16:19]

161 T: Melia you thought of one? Sam, I'm going to come to you next.

162 S: I learned that when somebody is...[???] it only had one claw because...[???]

163 T: So your team, and one part we didn't get to today that we'll have to do in our next
164 investigation is really start to look at the differences between them. So your team was already
165 observing the differences between the two crayfish that were in your basin, huh? That even
166 though it might have been smaller, that it seemed to have move faster than the bigger, red one
167 with the claw missing—the pincer missing. Sam, what did you learn?

168 [00:17:19]

169 S: I learned that...[???]

170 T: Similar to what Melia had said? Yeah! Crayfish...okay, I know I didn't finish Melia's thought
171 here either. The gray crayfish was last. There are, and Marissa and we kind of—we call it
172 paraphrase, what you said. Or Melia, excuse me. I sort of paraphrased what you had said. You
173 had added it on here, but then I noticed that you were noticing the differences. So I'm going to
174 kind of say there are differences between crayfish.

175 [00:18:15]

176 T: Okay. So in our next investigation...in our next investigation, we will be observing again a
177 little more closely the different structures and we'll start to compare and look at the different—
178 differences between the crayfish and think about why they might have differences. Alright, will
179 you please, as a team, line up for lunch?

180 [00:18:54]