

Transcript for Video Clip 2.3

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| Teacher/video ID: | Kawamura, 2.3_stella_GEN_kawamura_L2.2_c5 |
| Content area: | Genetics |
| STeLLA strategy: | Ask questions to elicit student ideas and predictions (STL strategy 1). Ask questions to probe student ideas and predictions (STL strategy 2). Ask questions to challenge student thinking (STL strategy 3). |
| Context: | In this lesson on genetics, students continue to wrestle with the claims from the previous lesson: Would puppies have a blend of two genes from both parents, or would one parent's genes determine the phenotype for length of the puppies' hair or fur? |

Video Clip 3

| Time Code | Speaker | Discussion |
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| 0:00:01.4 | SN | We're, like, one [hair-length trait] is dominant. |
| 0:00:02.7 | SN | Like, the short hair is dominant. So I did a big <i>S</i> for short hair, and then a little <i>l</i> for long hair, since that one's dominant and that's recessive. |
| 0:00:15.8 | T | Do you know? |
| 0:00:16.8 | SN | Well, no. |
| 0:00:17.5 | SN | Dogs are— |
| 0:00:17.7 | SN | Most likely. |
| 0:00:18.2 | T | Right now? OK, so why do you think most likely? |
| 0:00:21.3 | SN | Some people ... some people can't— |
| 0:00:23.2 | SN | Because the dominant gene, we think, is most influential and more in control. So we think that the dominance is just another way for saying stronger. |
| 0:00:31.6 | S | Not in the sense of being strained— |
| 0:00:33.1 | SN | Well, then we were going to this thing that, well, when we looked up the definition earlier, it said ... it said, "Having the most influence or control." |
| 0:00:44.1 | S | So it was basically like ... it was basically like ... I don't know. |
| 0:00:48.0 | S | If the two genes met, and they were, like, "All right," and the dominant one's, like, "All right, good-bye with you. I'm in control. I'm going to take over" kind of thing? |
| 0:00:57.2 | S | So then the recessive gene, like, doesn't really have a choice kind of thing. |
| 0:01:00.6 | T | So are you saying that short hair is dominant? |
| 0:01:03.2 | SS | Yes. |
| 0:01:03.4 | T | Is that what you are all saying? |
| 0:01:03.8 | SN | Most like ... most likely. |
| 0:01:05.3 | SN | Well, then again, it's paired with a long-hair, and who knows which one is dominant. |
| 0:01:09.3 | SN | Well, it's most like— |
| 0:01:10.0 | SN | But still. |
| 0:01:10.6 | SN | Mostly likely, 'cause we know that the result— |
| 0:01:12.7 | SN | No ... yeah. |

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| 0:01:13.2 | SN | ... turned out short. I mean, maybe it's just a problem that their an ... ancestors were different, and then short hair came out on top. Most likely, it's dominant to be a short-hair. |
| 0:01:23.4 | T | If you're listening, clap twice. |
| 0:01:25.8 | T | If you can hear me, touch your nose. |
| 0:01:27.8 | T | All right. So this table over here has been having a lot of fun chitchatting. Raise your hand if you have some really cool ideas at your table that you'd like to share out for everybody to hear. |
| 0:01:36.1 | T | Cody, what were you guys talking about? |
| 0:01:37.5 | SN | We were talking about if the one dominant hair gene's so e ... It's not really like ... it could be a mix. |
| 0:01:45.4 | S | But, like, that's really rare, so if, say, the female has the dominant hair gene, [the puppies are] mostly likely going to get the hair ... or the female's hair gene. |
| 0:01:55.5 | S | While if it's the male's, then they're most likely going to get the male's, so ... |
| 0:01:59.9 | T | Can you explain what <i>dominant</i> means to you today? |
| 0:02:02.7 | S | Like, am I allowed to look in here? |
| 0:02:07.3 | T | Yeah, sure. And you can call a friend too, if you want. |
| 0:02:10.9 | S | So I ... I think it's the person with, like, the most control. So, like, say someone had five doughnuts each, and then someone just whips out, like, 500. |
| 0:02:25.7 | S | The 500 would be the more dominant, so I guess <i>dominant</i> means, like, the person with the most control or the most. |
| 0:02:36.5 | T | OK. I like what you guys were talking about and the definitions that you were utilizing as you were chatting about the short hair. |
| 0:02:43.5 | T | Can you guys touch base about what your conversation was about? |
| 0:02:47.2 | SN | So basically ... so I have looked in our vocabulary packet, and I saw that I had written down for <i>dominant</i> ... I had said that it was "having the most power, well, in control or influence." |
| 0:03:02.3 | S | So it's kind of like with the genes. Like, if the ... if the dominant gene and the recessive gene met, then it would kind of be like ... |
| 0:03:10.8 | S | the dominant gene would be like, "All right, go away. I'm in control. I'm going to take over, and these puppies are going to have short hair, |
| 0:03:18.7 | S | because the short-hair gene is the dominant gene, and I'm the dominant gene." |
| 0:03:22.1 | S | So ... but then ... so it's kind of just like it's ... They're kind of in control, and they just take over, and then you come out with puppies with short hair. |
| 0:03:32.5 | SN | So then we were also thinking, like Kim pointed out. He thought that the short-hair gene was a dominant gene, and then the long-hair gene was the recessive gene. |
| 0:03:42.0 | S | And we were thinking that's probably most likely. It may not be true, like maybe the ancestors were different hairs, so that made the short hair come up, but it's probably a more ... |
| 0:03:52.6 | S | a most ... a more likely chance having the short hair as a dominant gene, 'cause as a result of the ba ... of the puppies, it can, like, reflect that it was probably the dominant gene. |
| 0:04:08.2 | T | And when you look at this picture of the puppies, did any of them have long hair? |

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| 0:04:12.7 | SS | No. |
| 0:04:13.3 | T | Did any of them have medium hair? |
| 0:04:15.0 | SN | [Inaudible] |
| 0:04:15.3 | T | They all had short hair. So I think my question for you guys was, are you saying then that <i>dominant</i> means that it's the trait that shows up? |
| 0:04:25.1 | SN | Well, most— |
| 0:04:26.5 | SN | More often. |
| 0:04:26.9 | SN | More often than the recessive gene. |
| 0:04:28.6 | SN | Be ... Yeah, 'cause it might— |
| 0:04:29.4 | SN | Yes, it might [inaudible]. |
| 0:04:30.5 | SN | It could've been a DNA mess-up, though, 'cause we were thinking when we were talking that ... I mean, there ... there can be dogs with one blue [eye and] one brown eye that won't happen— |
| 0:04:39.6 | SN | That's not very common. |
| 0:04:40.6 | SN | but ... common. |
| 0:04:41.2 | SN | 'Cause we were talking about how, like, 'cause going back to Michael's claim is that the ... He said that the puppies got something from each parent, but then there was a blend. |
| 0:04:49.9 | S | It's kind of like, you can't have a blend, really, without a DNA mess-up, like getting one blue eye and one brown eye. |
| 0:04:57.0 | S | So they're going to have one or the other. |
| 0:04:59.2 | T | OK. |