

## Identifying Student Thinking Lens Strategies (Answer Key)

STL Strategy	Evident in Video Clip	Evidence from Video Clip
1. Ask questions to elicit student ideas and predictions.	<p style="text-align: center;">① 2 3 4 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>Elicit questions are designed to get a lot of different ideas on the table before exploring a new science concept, but the teacher in this video clip doesn't do this.</li> </ul>
2. Ask questions to probe student ideas and predictions.	<p style="text-align: center;">1 ② 3 4 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>00:05:20: "OK, can you tell me what you did feel?"</li> </ul>
3. Ask questions to challenge student thinking.	<p style="text-align: center;">1 2 ③ 4 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>00:02:01: "OK. Does that agree with your evidence? Does it support your evidence that there was vibration?" These questions push students to recognize that a vibration was present. You could argue that the teacher gets students to think harder by leading them to connect their observations as evidence that the vibration occurred.</li> </ul>
4. Engage students in analyzing and interpreting data and observations.	<p style="text-align: center;">1 2 3 ④ 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>00:02:01: "OK. Does that agree with your evidence? Does it support your evidence that there was vibration?" These questions push students to recognize that a vibration was present and specify which sense they used to identify it. Prior to the question, the teacher says, "You are watching right now for evidence of vibration" (00:01:43). You could argue that throughout the clip, students are analyzing and interpreting their observations of various soundmakers to verify that a vibration was present. For example, they interpret the movement of the rice as evidence of vibration.</li> </ul>
5. Engage students in constructing explanations and arguments.	<p style="text-align: center;">1 2 3 ④ 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>00:04:25–04:51; 00:05:08; 00:05:41: Students explain how they detected the presence of a vibration and indicate the sense(s) they used to identify this evidence.</li> </ul>
6. Engage students in using and applying new science ideas in a variety of ways and contexts.	<p style="text-align: center;">① 2 3 4 5</p> <p style="text-align: center;">Not at all                      Very</p>	<ul style="list-style-type: none"> <li>This strategy wasn't present in the lesson. The teacher could implement this strategy by asking students the following questions:               <ul style="list-style-type: none"> <li>"What about other soundmakers that we haven't seen? Do you think they vibrate too?"</li> <li>"Do all soundmakers vibrate? Let's name a bunch of things that make sounds. Do you think all of these things vibrate? Why or why not?"</li> </ul> </li> </ul>