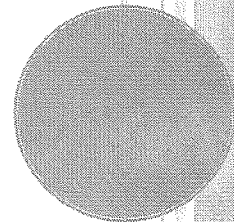


Rich argumentation tasks encompass the following four criteria:

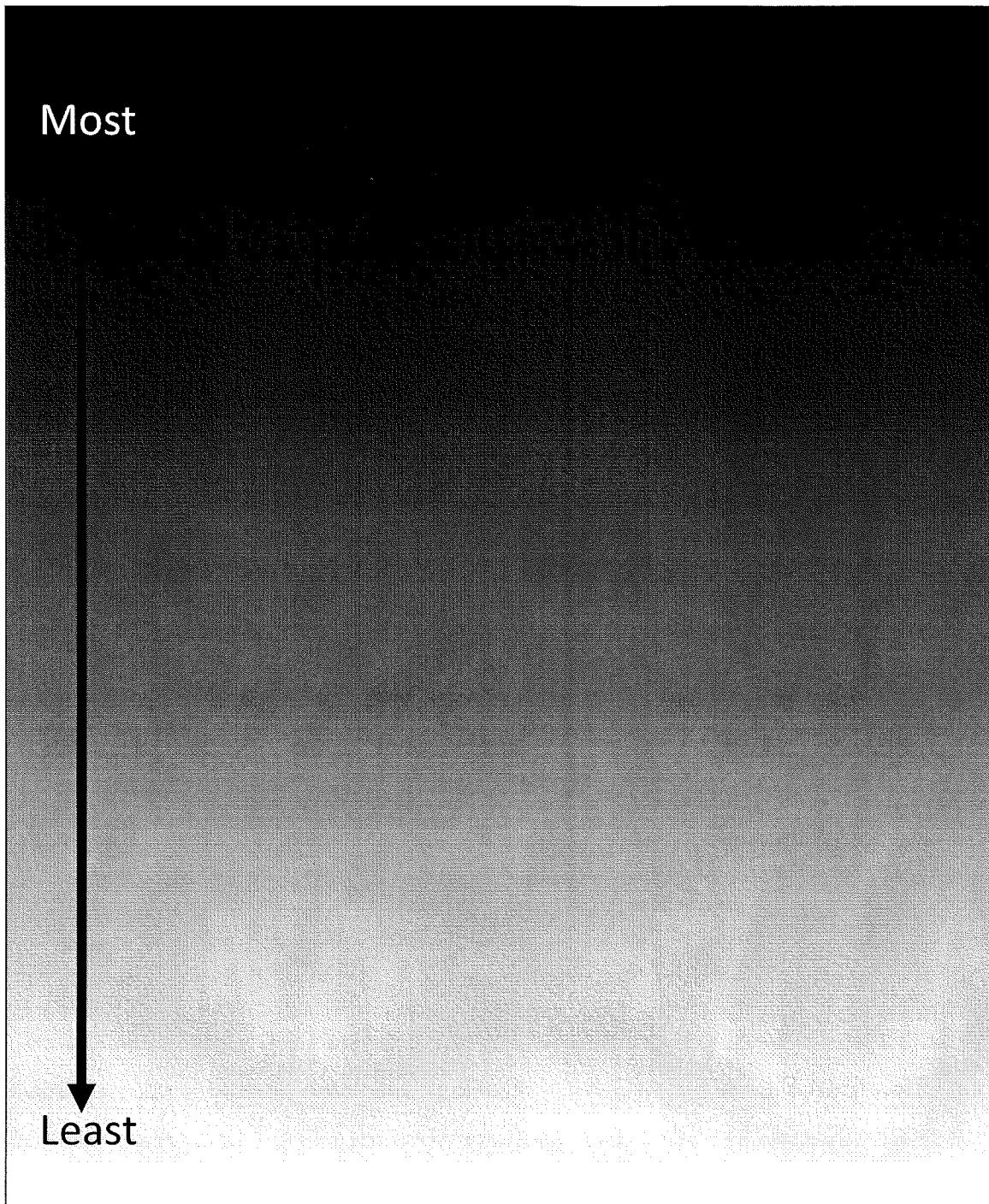
<b>Design Criteria #1:</b> Include a clear guiding question	<ul style="list-style-type: none"><li>• Written so that students do not interpret it in many different ways</li><li>• The question should allow for there to be multiple ways to answer it (i.e. multiple possible claims)</li></ul>
<b>Design Criteria #2:</b> Include multiple potential claims	<ul style="list-style-type: none"><li>• There needs to be evidence to support each claim – not just evidence for only one claim</li><li>• These claims might ultimately be convergent (i.e. meant to come together) or divergent (i.e. competing)</li></ul>
<b>Design Criteria #3:</b> Necessitate the use of evidence	<ul style="list-style-type: none"><li>• This evidence might be first hand (measurements or observations that students have collected), or second hand data (e.g. tables, figures, charts that they are given to analyze and use)</li></ul>
<b>Design Criteria #4:</b> Encourage student-driven argumentation	<ul style="list-style-type: none"><li>• Students, not the teacher, should be leading and carrying out the argumentation task</li></ul>

Other things to consider when designing rich argumentation tasks:


- What argumentation element(s) do you want to emphasize in the lesson? These could include: evidence, reasoning, student interactions, and competing claims.
- What are the needs of your students (e.g. English language learners, struggling with reasoning)?
- Where are the opportunities in existing curriculum for having students engage in argumentation?
- What kind of evidence is available, and how can it be made accessible to students (e.g. students are studying the solar system and you need to simplify a NASA dataset)?
- How do you want students to engage in an argumentation task (i.e. writing, speaking, reading)?
- What types of supports might your students need to engage in an argumentation task (e.g. sentence starters, graphic organizers)?



## Evidence Gradient Tool



**Claim:** Ocean currents impact baby American eels' chances of survival.

<p>The following message was posted to the travel blog OceanAdventures.blog.com: The temperature of the currents near the East Coast of the United States is warm.</p> <p style="text-align: right;">1</p>	<p><i>Marine Environments</i>, a science journal, described a group of scientists that studied many animals that use ocean currents to move around. However, the scientists did not study the American eel.</p> <p style="text-align: right;">2</p>
<p>The <i>Journal of Marine Biology</i> wrote that most baby American eels die as they travel the long distance across the Atlantic Ocean to rivers on the East Coast of the United States. About 20% survive.</p> <p style="text-align: right;">3</p>	<p>A high school biology textbook described that baby American eels are transparent and measure about 3 inches long. Adult American eels are brown and measure about 40 inches long.</p> <p style="text-align: right;">4</p>
<p>Wikipedia explains how adult American eels swim to the Atlantic Ocean to lay eggs and then die. When the eggs hatch, the baby eels must travel back to the East Coast of the United States so they can live in rivers.</p> <p style="text-align: right;">5</p>	<p>A friend shows you a picture they took on a recent vacation in Florida. They tell you that the picture is of a group of people who are fishing that see baby eels floating in an ocean current.</p> <p style="text-align: right;">6</p>
<p>The following image from the U.S Fish and Wildlife Service website shows the currents in the North Atlantic Ocean.</p> <div style="text-align: center;">  </div> <p style="text-align: right;">7</p>	<p>A show on the Discovery Channel explains that the eggs of American eels hatch in the Sargasso Sea. It then takes the baby American eels nearly one year to travel 2,000 miles in order to reach the Atlantic coast of the United States.</p> <p style="text-align: right;">8</p>
<p>A video made by Dr. Mariella Acevedo, a marine biologist, illustrates the many ways that ocean currents help different animals (including American eels) travel long distances.</p> <p style="text-align: right;">9</p>	<p>An opinion piece in a local newspaper argues that the construction of a new dam is going to negatively impact American eels because it will influence the eels' habitat.</p> <p style="text-align: right;">10</p>