

## Common Core State Standards for English Language Arts: K-12 Close Reading Task

| Text grade band placement:<br>6-8   |   |
|---|---|
| Text  | Text Complexity Analysis  |
| <p><b>Title:</b> "Decoding Your DNA"</p> <p><b>Author:</b> Cody Crane</p> <p><b>Citation/Publication info:</b><br/>Crane, Cody. "Decoding Your DNA."<br/><i>Science World</i>. 03 2012: 20-22. Print.</p> <p><b>Link:</b><br/><a href="http://www.thefreelibrary.com/Decoding+your+DNA%3a+it's+becoming+easier+to+unravel+a+person's+entire...-a0299886116">http://www.thefreelibrary.com/Decoding+your+DNA%3a+it's+becoming+easier+to+unravel+a+person's+entire...-a0299886116</a></p>   | <p><b>Quantitative:</b><br/>Lexile: 1170L</p> <p><b>Qualitative:</b><br/>The text is challenging while being clear about content specific vocabulary. It also introduces historical data.</p> <p><b>Reader and Task:</b><br/>The article provides a graphic organizer breaking down content specific vocabulary. Potential difficulties for struggling students will be taking particular words within the article out of context, specifically "environment" and "mutation."</p> |
| ELA/Literacy Common Core Standards addressed by task  |   |
| <p><u>CCSS.ELA-Literacy.RST.6-8.1</u> Cite specific textual evidence to support analysis of science and technical texts.</p> <p><u>CCSS.ELA-Literacy.RST.6-8.2</u> Determine the central ideas or conclusions of a text; provide an accurate summary of the text distinct from prior knowledge or opinions.</p> <p><u>CCSS.ELA-Literacy.RST.6-8.8</u> Distinguish among facts, reasoned judgment based on research findings, and speculation in a text.</p> <p><u>CCSS.ELA-Literacy.WHST.6-8.1</u> Write arguments focused on <i>discipline-specific content</i>.</p> <p><u>CCSS.ELA-Literacy.WHST.6-8.4</u> Produce clear and coherent writing in which the development, organization, and style are</p> |   |

appropriate to task, purpose, and audience.

**What key insights should students take from this text?**

After completing this activity students should understand:

1. The organizational hierarchy of Cells, Chromosomes, DNA, Base Pairs, and Genes
2. Base pairs form particular proteins
3. Bases are always paired A-T and C-G
4. Sequencing of DNA; particular sequences form genes that determine traits.
5. Mutations are “mistakes” in the DNA’s code and can cause disease.

**Text-Dependent Questions**

1. What evidence does the author provide to support the idea that DNA can be compared to a ladder?
2. After reading the passage that illustrates the connection between traits and genes, explain that connection in your own words, citing evidence from the text.
3. The author makes a claim that mutations result in diseases; do mutations always result in disease? Why or why not? Support your claim with evidence from the text.

**Writing Mode**

**Writing Prompt**

Argumentative

The article states that “Between any two individuals, about one in 1,000 bases will be different.” Considering the frequency and effect of mutations, make a claim in response to the following question: Do you think mutations could result in a truly mutant race with superhuman abilities? Write an argumentative essay that supports your claim with evidence from the text.

**Scaffolding and support for special education students, English language learners, and struggling readers:**

- Students with learning difficulties can be paired with seat partners who can read and perform at a higher level. These partners can then be available for prompting and peer editing purposes.
- Portions of the article are already chunked into smaller sizes for close reading exercises.
- Essential vocabulary is identified by italics within the article; a list of these terms can be provided in addition to the article. This list will allow the students to be certain that they are placing the appropriate emphasis on the relevant terms.

**How this task supports the content standards for relevant subject area courses in this grade band:**

This task would be appropriate for a 7<sup>th</sup> grade science course. The following standards are addressed:

- GLE 0707.4.3 Explain the relationship among genes, chromosomes, and inherited traits.
- SPI 0707.4.3 Describe the relationship among genes, chromosomes, and inherited traits.