



Text Complexity Analysis of

Climate Change: Atmospheric Carbon Dioxide (*title*)

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Recommended Complexity Band: 9-10

Qualitative Measures

Meaning/Purpose: (*Briefly explain the levels of meaning (Literary Text) or purpose (Informational Text.)*) The clear purpose of this straightforward text is to inform and educate the public about how human activity is now increasing the concentration of carbon dioxide in our atmosphere, increasing the natural warming caused by the greenhouse effect.

Text Structure: (*Briefly describe the structure, organization, and other features of the text.*) This article is organized into short paragraphs. This organization helps to minimize the large number of complex sentences and vocabulary words. The article has an interactive graph that makes the text more understandable, if students have access to the online version.

Language Features: (*Briefly describe the conventions and clarity of the language used in the text, including the complexity of the vocabulary and sentence structures.*) This text contains many complex sentences. Subject-specific language is used frequently, such as greenhouse gases, greenhouse effect, mass extinction, and global warming.

Knowledge Demands: (*Briefly describe the knowledge demands the text requires of students.*) To read this text students should understand what the greenhouse effect is and what greenhouse gases are. Additionally students must be familiar with the concept of global warming and what constitutes a fossil fuel.

Text Description

Briefly describe the text: This informational text resource is intended to support reading in the content area. The article describes the possible effects on the planet due to the rise in carbon dioxide in the atmosphere, especially the implications for climate change.

Quantitative Measures

Complexity Band Level (provide range): 6-8, 9-10

The text falls into the above grade bands according to a quantitative reading measure. It falls at the upper end of the 6-8 and in the midrange of the 9-10 band.

Considerations for Reader and Task

Below are factors to consider with respect to the reader and task.

Potential Challenges this Text Poses:

This article is a good summative lesson for students on climate change and global warming. Students will need to be familiar with the terms related to climate change. Teachers should supplement the article with an introduction to greenhouse gases and their effects on our climate. If possible, have students use the online version of the text at <https://www.climate.gov/news-features/understanding-climate/climate-changeatmospheric-carbon-dioxide> to manipulate and explore the features of the interactive graph.

Recommended Placement

Briefly explain the recommended placement of the text in a particular grade band: Quantitative measures place this text at the intersection of middle school and high school. While some middle school students would probably have enough background information to read and analyze this article, its text structure, sentence complexity, and subject-specific vocabulary make it most appropriate for grades 9 and 10.