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SCI 100 Topic Exploration Graphic Organizer

Link to article: https://www.sciencedaily.com/releases/2020/05/200518154948.htm

Topic (Describe the topic discussed in your news story, providing details about the background of the topic.)

Global warming is the result of the gradual increase of temperature in the Earth's surface and atmosphere. This phenomenon is primarily caused by human activities like fossil fuel burning, which results to the excessive accumulation of greenhouse gases in the Earth's atmosphere. The accumulation of greenhouse gases results the depletion of the ozone layer, which absorbs most of the ultraviolet rays from the sun; thus, the increase of temperature. Global warming has led to many unnatural events. Some examples include the melting of ice in polar ice caps and mountain glaciers; the changing of migration patterns of animals; the rising of sea levels; and the extreme fluctuations and abnormalities in some weather events.

Main Idea (Identify the main idea or thesis in the news story you selected.)

A recent study from the University of Wisconsin-Madison and NOAA National Center for Environmental Information showed that hurricanes are getting stronger. The scientists working on the study relates this phenomenon to climate change or global warming (University of Wisconsin-Madison, 2020). The study involves the analysis of global hurricane data from 1979-2017 using techniques such as the CIMSS Advanced Cvorak Technique, which is based on the infrared temperature measurements from geostationary satellites for the estimation of hurricane data. Through analysis of past data, the research team was able to identify trends from a more uniform data set. According to the scientists, the winds that lead to hurricane formation are becoming stronger, especially in areas where they form.

Supporting Evidence (Describe the evidence that supports the main idea or thesis of your news story.)

1) The study concludes that storms are now stronger on the global and regional levels because of global warming. However, the researchers were not able to accurately determine if the phenomenon was caused by human activities or natural events.

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2) Data from 2014 showed poleward migrations of hurricanes, which meant that the tropical cyclones are moving faster to the north and south pole. Thus, population in coastal areas that were previously less affected by the cyclones are now at greater risk.
3) Data from 2018 showed that hurricanes are moving slowly across land, resulting to greater risk for floods at urban areas.

Questions (Your questions should be based on the **main idea** and **supporting evidence** that you identified.)

1) What are the lasting effects of the increasing strength of hurricanes?
2) What are possible measures to counter the increasing strength of hurricanes?
3) If global warming is reduced, will the strength of hurricanes also decrease?
4) Does higher wind speed lead to lesser duration of hurricanes?
5) Since the results cannot accurately determine if the increase in hurricane strength is caused by human activities or natural events, how can the research be improved? What other possible analytic techniques can be done?
6) How did the researchers decide to use hurricane-related data in a span of 38 years?
7) Aside from climate change, are there other possible reasons for the increasing strength of hurricanes?

Information (Identify the types of sources that you could use to find more information about the topic discussed in your news story and the questions you posed.)

I would want to search in peer-reviewed journals about global warming and its effects on natural phenomenon such as hurricanes. I can also search for journals about data analysis, especially on the analytical techniques used to determine hurricane intensity. Moreover, I can read the original article that was mentioned in the news story to access more specific information that was not written in the summary.

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Reference:

University of Wisconsin-Madison. (2020, May 18). Long-term data show hurricanes are getting stronger. ScienceDaily. www.sciencedaily.com/releases/2020/05/200518154948.htm