Hesiod Student Generated Assignment

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Teacher:	Mr. Hemrick

Directions: Read the prompt and write 250-600 word response. Once you are done, please make sure your Word document has the following label: **firstname_lastname_human**. So, if your name is **John Doe,** then rename the document to **John_doe_human**. Then, submit the document to the Microsoft Form that can be accessed by this link: **https://forms.office.com/r/CbD6LQs41s**

Prompt: In 1910 Alfred Wagner came up with the "Continental Drift Theory". He proposed that all the continents were once together, and over time they have drifted apart. In 250-600 words explain:

1. What evidence did he base his claim on?
2. Despite this evidence, the scientific community did not believe him, why?
3. What new evidence(s) changed everyone's mind, and allowed us to develop the "Theory of Plate Tectonics"?

Response: Please write your 250-600 word response below:

Alfred Wegener was looking at a world map when he noticed that some continents; such as South America and Africa, have similar coastlines and looked as if they could be put together like puzzle pieces. He then thought that the continents were once one large land mass that eventually broke apart, and referred to this as the Continental Drift Theory. He proposed his theory where some scientists noticed his same observations, but Wegener mostly received harsh feedback. People held conferences to "debunk" the Continental Drift Theory, and he was told by geologists that he was only a glorified weatherman who should have stuck to weather studies. In the 1950's and 60's new evidence involving the ocean floor changed everyone's opinions on the Continental Drift Theory. Ships equipped with sonar technology produced maps that showed the ocean floor consists of tall mountains and deep valleys which was suspected to have to do with Continental Drift. Later, the Mid Atlantic Ridge was found along with several other valleys with a similar structure all over the globe. Scientists conducted further research on these exceptionally large ocean valleys, when a geophysist known as Harry H Hess found that

crust had formed along the Mid Atlantic Ridge. Crust closer to the ridge was usually younger than the crust further away which led to the discovery that when newer crust forms, it pushes away older crust which results in seafloor spreading. The crust was once magma that had rose up through the valley then cooled down after being in contact with water, and this cycle has repeated constantly for millions of years causing Continental Drift. All this new information has led to our understanding of modern plate tectonics and Wegener's theory was finally supported.