NAME: _____

Glacier Interactive

Directions: Access the *Glaciers Interactive Simulation* on your teacher's website using a **LAPTOP** (Chromebooks will not run this program). When the program opens, click the **Advanced** tab at the top of the screen. Use the Toolbox, View, Climate, and Graphs functions to answer the questions and explore the glacier.

TO START, MAKE SURE TO CLICK THE ADVANCED TAB AT THE TOP!

Questions:

1. Locate the speed control at the bottom of the screen. Adjust the speed to fast and view the glacier. Noticed the "sediment" deposited in a line at the end of the glacier.

   What is the deposit of unsorted till at the end of the glacier called? _____

2. What happens to the glacier when the *sea-level air temperature* is raised just 1°F?

   _____

3. What are the pieces of sediment (black dots) randomly scattered around the surface as the glacier melted called? _____

4. Click the **RESET** button to reset all settings. Use the *flag tool* and *coordinates viewer* to determine how fast the surface of the glacier is moving in feet per year.

5. Click the RESET button to reset all settings. **Adjust the speed to the slowest setting.** Use the *drill tool* to determine how the speed of the glacier varies vertically from its surface to its base. State your findings and provide a reason for the different speeds.

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6. Indicate if you agree or disagree with the statement below. Provide supporting evidence for your choice using the *Glacier Interactive* program.

Statement*: It takes large changes in temperature and snowfall to alter the size and thickness of a glacier.*

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7. Access the link "*Glaciers- Then and Now*" on your teacher's website. View the images of glaciers comparing how they looked in the past to how they look today. Describe your impression of what is happening to the world's glaciers and what this might mean for the Earth.

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