"The Aurora" Website Worksheet

Name_____
Mods_____

*The answers to the following questions can be found at this website:
http://sprg.ssl.berkeley.edu/rocket_cast/index.htm
Use this site—it is to your advantage!

(2) 1. Who coined the term "aurora borealis", and what is it describing?

(2) 2. As people began to study the aurora, theories about its origin developed. Name two theories.

(2) 3. There is a satellite program aimed at learning more about the aurora. Name it, and tell what the acronym stands for.

(1) 4. When was the aforementioned satellite launched into orbit?

(4) 5. Name four things that the Earth's atmosphere is filled with.

(1) 6. What is the collective term for the gas-like mixture of charged subatomic particles emitted from the sun?

(2) 7a. What does "IMF" stand for?

b. Changes in the direction of the IMF relative to the _____ can cause auroral activity.

(2) 8. Explain how the Earth's magnetic field works. Be specific.

(2) 9. Define *mean free path*. How long is this path in the neighborhood of the Earth?

(2) 10. What two things happen when the IMF collides with Earth's magnetosphere?

(2) 11. Most particles are deflected around the Earth's magnetosphere at a boundary called the _____. What percentage of those particles is actually able to enter the magnetosphere?

(1) 12. What is the easiest way to determine the direction in which currents and magnetic fields point?

(2) 13. What is the ionosphere and how is it created?

(2) 14. Explain what happens in the auroral acceleration region.

(2) 15. The ionosphere acts as a _____. This allows for what to happen?

(2) 16. The aurorae are always present where? What shape do they take when seen from space?

(2) 17. Name two types of aurora.

(6) 18. In your own words, explain how energy and particulate matter from the sun can create an aurora on Earth. Be as specific as you can.