

Uh-oh! Solar Indigestion Web Quest!



Student Information:

Go to this [Space Weather Website](http://www.spaceplace.nasa.gov/spaceweather/en/) (<http://www.spaceplace.nasa.gov/spaceweather/en/>). This *NASA* website gives one up-to-date information on what is happening on the sun as well as weather in space.

Next, read the information under "*Weather Within Weather*".

1. What does the sun 'belch' into space?
2. What does the gas from the sun contain?
3. What protects the Earth from weather coming from the Sun?

Read the information under "*Winds 10,000 times faster than hurricanes!*"

1. How many miles per hour does a solar wind blow at?
2. What happens when the solar wind comes into contact with the Earth's magnetic field?

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Read the information under "*Where Space Weather is Beautiful*".

1. What does a solar wind follow in space?
2. How does an aurora occur?
3. What is the difference between Aurora Borealis and the Aurora Australis?

Read the information under "*Here It Comes!*"

1. What is a "solar indigestion"?
2. What is the energy in a solar flare?
3. What is the energy in a coronal mass ejection (CME)?

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Read the information under "*Quick, Where Can We Hide?*"

1. What kinds of damage can "bad space weather" do on Earth?
2. How do astronauts in space protect themselves against "bad space weather"?

Read the information under "*If Only We Had Some Warning!*"

1. On Earth, how do we receive warning signs of "bad space weather"?
2. What are the main roles of the GOES and GOES-R satellites?
3. What is the main role of the POES satellite?