

Aurora Effects Scavenger Hunt

Overview:

Students navigate the *Aurora Effects* unit of the *Aurora Alive* multimedia video playlist to find answers to the questions on the STUDENT WORKSHEET: “Aurora Effects Scavenger Hunt.”

Objectives:

The student will research information by interacting with the *Aurora Alive* multimedia video playlist.

Materials:

- *Aurora Alive* multimedia video playlist
- STUDENT WORKSHEET: “Aurora Effects Scavenger Hunt”



Activity Procedure:

Distribute the *Aurora Alive* playlist and the STUDENT WORKSHEET: “Aurora Effects Scavenger Hunt.” Ask students to complete the worksheet by navigating the playlist to learn the answers to the questions.

Answers to Student Worksheet:

1. *electric power*
2. *Geophysical Institute*
3. *ionosphere*
4. *bounce back to Earth in unexpected places, or become scrambled*
5. *electric current*
6. *corrosion*
7. *atmosphere*
8. *slow down or lose altitude and burn up*
9. *false*
10. *high-energy particles*

Aurora Effects Scavenger Hunt



Directions: Use Unit 9 of the *Aurora Alive* multimedia video playlist to help you answer the questions below.

1. What kind of power from the aurora can disrupt systems on Earth and in space?

2. The _____ was created in 1946, in part to figure out why the aurora interfered with radio communications during World War II.
3. Radio waves bounce off of what layer of Earth's atmosphere?

4. Large aurora displays can deform the ionosphere, causing radio waves to do what?

5. What does a large aurora create that heats up transformers, causing them to fail?

6. Electric current in the ground, created by the aurora, can cause what destructive process in the trans-Alaska Pipeline? _____
7. Researchers use satellites that orbit close to Earth to study the _____.
8. Electrical energy from the aurora heats up and expands Earth's atmosphere. This expansion creates a drag on some low-altitude satellites, causing them to do what?

9. True or False: A large aurora display cannot change or destroy the signal a high-altitude satellite makes.
10. What can penetrate space suits and harm astronauts when an aurora occurs?
