Crowns of Light Scavenger Hunt

Overview:

Students navigate the Crowns of Light unit of the *Aurora Alive* multimedia video playlist to find the answers to questions on the STUDENT WORKSHEET: "Crowns of Light Scavenger Hunt."

Objectives:

The student will research information by interacting with the *Aurora Alive* DVD.

Materials:

- *Aurora Alive* multimedia video playlist AA Ch 5 001-007
- STUDENT WORKSHEET: "Crowns of Light Scavenger Hunt"

Activity Procedure:

Distribute STUDENT WORKSHEET: "Crowns of Light Scavenger Hunt." Ask students to complete the worksheet by navigat-ing the video playlist to learn the answers to the questions.

Answers to Student Worksheet:

1. *B. He watched the night sky, recorded where he saw the aurora and pinpointed those places on a map.*
2. *B. oval*
3. *north & south (or geomagnetic) poles*
4. *1958*
5. *north; south*
6. *satellite*
7. *B. closed magnetic field lines*
8. *A. open magnetic field lines*
9. *open; closed*
10. *clear night skies; Alaska must be under the aurora oval*

Name:_____ **Student Worksheet**

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Directions: Use Unit 5 of the *Aurora Alive* multimedia video playlist to help you answer the questions below.

1. Circle the correct answer: How did Elias Loomis figure out that aurora displays circle Earth's north pole?
   A) He reviewed satellite images
   B) He watched the night sky, recorded where he saw the aurora and pinpointed those places on a map.
   C) He flew around the aurora oval in a plane.

2. The aurora forms what shape over Earth's north and south poles?
   A) square
   B) oval
   C) a straight line
   D) a zigzag line

3. Oval rings of aurora hang over what part of Earth? _____

4. What year did scientists build the all-sky camera? _____

5. More than 100 all-sky cameras were installed near Earth's _____ pole in the Arctic, and Earth's _____ pole in the Antarctic.

6. In the 1970s, what kind of images proved that the aurora hangs in glowing crowns of light over Earth's geomagnetic north and south poles? _____

7. What kind of magnetic field lines loop back to Earth between the poles?
   A) open magnetic field lines
   B) closed magnetic field lines

8. Aurora ovals stretch around what kind of magnetic field lines?
   A) open magnetic field lines
   B) closed magnetic field lines

9. Aurora ovals form a boundary between the area covered by Earth's _____ magnetic field lines and the area covered by Earth's _____magnetic field lines.

10. What two things do Alaskans need in order to see the aurora? _____
    _____

