

Aurora Forecast

Overview:

Students use the Internet to get current aurora forecast information.

Objectives:

The student will:

- use the computer to enter and retrieve information, observe, analyze, interpret, and draw conclusions;
- apply aurora forecast information to geographic locations; and
- apply scientific knowledge to understand everyday events.

Materials:

- Blue or green pencils
- STUDENT WORKSHEET: “Aurora Forecast”

Activity Procedure:

1. Distribute the STUDENT WORKSHEET: “Aurora Forecast” and green pencils.
2. Ask students to visit the *Geophysical Institute* website: (<http://www.gi.alaska.edu>) to get current aurora forecast information. Click on **Aurora Forecast**.
3. Ask students to use data from this website to answer questions on their worksheets. Ask students to make sure the map they color matches the map on the screen, using solid green to indicate “Aurora Overhead” and a dotted green line to indicate “Extent of Visibility.”
4. Explain the forecast map shows the aurora will occur directly overhead for people living under the solid band, and the aurora will be visible, but not overhead, for people living between the two dotted lines.
5. Ask students to determine the forecast for their city on the map. Will the aurora be overhead? Will it be visible at all? Remind students that aurora viewing is affected by local weather conditions. Cloud coverage will interfere with viewing.
6. After discussing the forecast, ask students to locate the previous and next day’s forecast information and to identify the forecaster so they can complete their worksheets.



Answers to Student Worksheet:

Answers will vary according to the date. Visit the website cited on the date this activity is performed to obtain current information for grading this worksheet.

Name: _____

Aurora Forecast

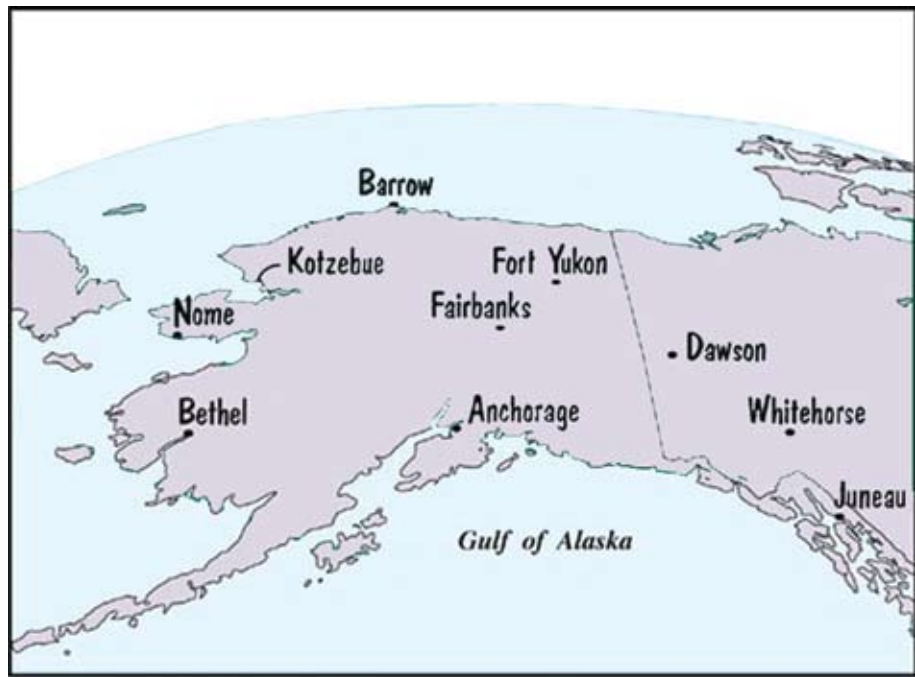
Directions: Go to the *Geophysical Institute* website: (<http://www.gi.alaska.edu/>) for answers to the following questions:

1. This is the Aurora Forecast for _____(date)

2. Check a box below to indicate level of today's auroral activity:

<input type="checkbox"/> Minimum Auroral Activity	<input type="checkbox"/> Quiet Auroral Activity
<input type="checkbox"/> Moderate Auroral Activity	<input type="checkbox"/> Active Auroral Activity
<input type="checkbox"/> High Auroral Activity	<input type="checkbox"/> Maximum Auroral Activity

3. Color in the map below to show auroral activity for today's forecast.



©1999 Geophysical Institute, UAF
■ Aurora Overhead
----- Extent of Auroral Visibility

4. Click on "Previous Day's Forecast" and "Next Day's Forecast." Write a comment on whether there is a change in auroral activity over a period of three days. _____

5. Search for and write the name of the aurora forecaster. _____