

# Earth Viewer



## Objectives

In this activity, students will

- use a Web site to connect with a satellite and view Earth at any moment.
- use their knowledge of latitude and longitude to view different positions of Earth.

## Technology required

- *Microsoft Word, AppleWorks*, or other word processing program
- Internet connection

## Materials needed

- copies of *Earth Viewer Welcomes You* (pages 89–90) for the students

## Description

The students can work on this activity independently or with a partner. Begin by giving an introductory lesson showing the Web site and the variety of activities one can do with it.

Demonstrate for students how to access the *Earth and Moon Viewer* Web site through the *Teacher Created Resources* Web site for this book:

Go to <http://www.teachercreated.com/books/3032>

Click on Page 89, Site 1

Once the Web site opens, show the students where to click in order to complete *Earth Viewer Welcomes You* activity page (pages 89–90).

It is important to note that this lesson is set up for January. The questions may not coordinate with views from other months. However, the teacher may want to have the students view this once a month or every other month so they can literally see the rotation of the earth. Make sure the altitude, latitude, and longitude positions stay the same to create an accurate comparison of the different months.

When the students work on this, they should either answer the questions in a word processing program or simply write the answers on paper.

## Extension

Have the students use the Web site to view the region where they live.

Students can extend their research to looking at Moon Viewer using the same Web site. They can look at the various longitudes, latitudes, and altitudes of the lunar satellite.

Name \_\_\_\_\_

# Earth Viewer Welcomes You



Access the *Earth and Moon Viewer* Web site:

Go to **<http://www.teachercreated.com/books/3032>**

Click on Page 89, Site 1

Click on the highlighted words *latitude*, *longitude*, and *altitude* under **Viewing the Earth**.

This link will take you to a **View Above Earth** window that gives you the current view of the earth's surface.

Type in these numbers for latitude, longitude, and altitude. (Do not use commas to indicate place value.)

- latitude: 47 North
- longitude: 7 East
- altitude: 35785 kilometers above Earth's surface

Click on the **View Earth** button, and answer the following questions:

1. From this view, what entire continent can you see?

---

2. What continents can you only see parts of?

---

---

3. Name three oceans found in this view.

---

---

4. How are night and day indicated? \_\_\_\_\_

---

Click the **Back** button on your browser menu.

(over)

# Earth Viewer Welcomes You *(cont.)*



Type these positions:

- latitude: 40 North
- longitude: 120 West
- altitude: 35785 kilometers above Earth's surface

Click on the **View Earth** button, and answer the following questions:

5. What part of the world is showing now?

---

6. Where is the sun in relation to this side of the globe?

---

7. What three oceans do you see here?

---



---

Under the picture, change the altitude reading to 100 km and click the **Update** button.

8. What happened to your view?

---



---

Change the readings under the picture to explore the following positions. Be sure you push the **Update** button after changing the readings.

latitude: 30 South

latitude: 0 South

latitude: 165 North

longitude: 135 East

longitude: 0 West

longitude: 180 West

altitude: 335000 km

altitude: 35000 km

altitude: 5000 km

9. Write at least three paragraphs describing the differences in each position. Make sure you write specific information. Also, draw a picture of each position to go with your paragraphs.