

A FILM BY KEN BURNS
THE NATIONAL PARKS
America's Best Idea

THE NATIONAL PARKS: AMERICA'S BEST IDEA
LESSON PLANS

MAPPING THE NATIONAL PARKS

For more information, visit

www.pbs.org/nationalparks/for-educators/

MAPPING THE NATIONAL PARKS

Overview

All of us have a “mental map” of what constitutes a park, depending largely on our past experiences and where we live. Students in urban areas may “see” an expanse of green lawn between buildings. Those in more rural areas might describe a park as acres of untouched forest. But a survey of America’s national parks reveals many types of environments, from volcanoes and glaciers to sand dunes and marshlands.

Students will use online tools – such as pbs.org/nationalparks/parks, the National Park Service Web site and Google Earth 5.0 – to locate, “tour,” and share information about America’s national parks.

Objectives

The student will:

- identify the diversity of environments found in the national parks
- research and describe the physical characteristics of a national park
- research and describe the human characteristics of a national park
- create a narrated “tour” of a specific national park using Google Earth
- share the tour with others in the classroom, and online
- integrate their knowledge of the five themes of geography

Estimated Time

- Approximately three class periods

Materials Needed

- Individual or group computer access to the Internet and Google Earth 5.0, a built-in microphone or microphone headset, attached graphic organizer.

Activity/Procedure

1. As a class, watch the clip “Mapping the National Parks” (pbs.org/nationalparks/for-educators/lesson-plans/#mapping). Following the segment, ask for student responses to the following questions:
 - a. According to the segment, what is a park’s purpose?
 - b. What types of environments were among those shown and described in the segment?
 - c. In what ways do those environments compare to your idea of a “park”?
 - d. Which of those environments would you like to know more about?
2. If students are not familiar with the five themes of geography, review them with the class. (A handout describing the themes is included with this lesson.) Explain that they will “visit” a specific park and learn more about it through these five themes. Divide students into pairs or small groups. Ask each pair or group to choose one national park from among the following:
 - Glacier Bay National Park and Preserve, Alaska

- Yosemite National Park, California
- Mesa Verde National Park, Colorado
- Everglades National Park, Florida
- Hawai'i Volcanoes National Park, Hawaii
- Tallgrass Prairie National Preserve, Kansas
- Isle Royale National Park, Michigan
- Crater Lake National Park, Oregon
- Bryce Canyon National Park, Utah
- Yellowstone National Park, Wyoming

Have pairs or groups go to pbs.org/nationalparks/parks to locate the park they've chosen to explore. Provide time for them to research information on the park's dedicated site to complete the "Park Profile" graphic organizer.

3. Tell students that, armed with information about the park they've chosen, they will use the Google Earth 5.0 tool to record a narrated tour of the park for the rest of the class. Before they start the assignment, allow the student groups time to explore Google Earth, or guide them through the process of exploring a specific site close to home with a computer hookup to a projection screen. Under "Help," Google Earth offers a tutorial and start-up tips. For the "Touring" feature that students will use for this activity, provide them with the **Directions for Recording a Narrated Tour** handout.

Alternative Activities: If your classroom is limited in its access to Google Earth, have students share the information they've found in a PowerPoint presentation or print travel brochure.

4. After the pairs or groups have recorded their narrations, invite them to take the rest of the class on a "tour" of their chosen park. They can do this with a computer hooked up to a projection screen or students in the classroom can rotate to different computer stations for specific park "visits." Have students take notes on the different parks they visit so they can participate in a classroom discussion.
5. Facilitate a classroom discussion on students' tours of America's national parks and have students complete a journal entry on the activity. Ask for their responses to the following questions:
 - a. What did you learn about America's national parks?
 - b. In what ways are the parks similar? Consider tourist services, size and visitor access.
 - c. In what ways are the parks different? Consider terrain, landforms, vegetation and climate.
 - d. In what ways are visitors using the parks?
 - e. What does this system of parks say about the physical and human characteristics of our nation?
 - f. How were the five themes of geography useful in understanding the specific characteristics of the park?
6. Have student's upload their park tours to the Share Your Story online module at pbs.org/nationalparks/share-your-story.

Assessment

Students should be assessed on the quality of their completed graphic organizers, inclusion of that information in their Google Earth park “tours,” and the presentation of the tour itself. Successful students will have incorporated the themes of location, place, human-environment interaction, movement, and regions into their tours and used technology to communicate curriculum goals.

Related Academic Standards

This lesson meets the following curriculum standards set by the Geography Standards Education Project for grades 5-8:

- Use maps and other geographic representations, tools, and technologies to acquire, process, and report information;
- Use mental maps to organize information about people, places, and environments;
- Analyze the spatial organization of people, places, and environments;
- Analyze the physical and human characteristics of places;
- Create regions to interpret Earth’s complexity;
- Identify and explain how culture and experience influence people’s perception of places and regions;
- Explain the characteristics and spatial distribution of ecosystems;
- Analyze how human actions modify the physical environment; and
- Describe changes that occur in the meaning, use, distribution, and importance of resources.

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UNDERSTANDING THE FIVE THEMES OF GEOGRAPHY

Geography is the study of Earth and its features. Geographers also study the distribution of plant and animal life on the planet, including people and cities.

It's helpful to look at geography through these five themes:

LOCATION – *Where is it?* The term can refer to absolute location, such as an address or geographic coordinates. It can also refer to relative location, or where something is in relation to something else.

PLACE – *What is it like?* This term refers to the characteristics that make a place unique. Those characteristics can be physical, such as landforms and vegetation. They can also be human, referring to an area's culture, economy and government. Every place has a special combination of physical and human characteristics.

HUMAN-ENVIRONMENT INTERACTION – *What is the relationship between the environment and humans?* The term refers to ways that humans adapt to an environment, how they change it, and how they depend on it. Bridges and dams are examples of ways that humans have interacted with the environment to meet their needs.

MOVEMENT – *How have people, goods or ideas moved from one place to another?* Examples of movement include America's westward expansion and the Internet.

REGIONS – *What characteristic is shared by a group of places?* Putting places into regions allows us to organize our knowledge of the world. A region can be defined by specific boundaries, such as a county or the United States. But a region such as the "Rust Belt" or "Tornado Alley" can also be based on our perceptions of places.

PARK PROFILE

America’s national parks represent a wide variety of environments, from glacial ice to fiery volcanoes and dry deserts to deep fjords.

To explore a specific park, start with the Web site of the National Park Service at www.nps.gov. Use the site’s “Find a Park” tool to locate your park. Then research its dedicated pages for facts about the park that you can share with others. Organize your information using the following table.

EXPLORING (name of park) _____

<p>LOCATION</p> <p>State</p> <p>Region (formal or informal)</p>	
<p>PHYSICAL CHARACTERISTICS</p> <p>Park borders (area)</p> <p>Size of the park (acres)</p> <p>Climate</p> <p>Landforms</p> <p>Vegetation</p> <p>Wildlife</p>	
<p>HUMAN CHARACTERISTICS</p> <p>Visitors per year</p> <p>Most popular visitor sites</p> <p>History of development (movement)</p> <p>Changes in landscape over time (human-environment interaction)</p>	

DIRECTIONS FOR RECORDING A NARRATED TOUR WITH GOOGLE EARTH

- On Google Earth's home page, key the name of a park into the box labeled "Fly to." Begin the search. Note the dates the images were taken, latitude and longitude, and elevation.
- Mouse over the upper right side of the map. Use the sliding bar to focus more closely – or pull further away from –the park's geographic boundaries and features. Use the directional wheels to "fly" over terrain or to rotate or vary your physical point of view.
- Zero in on a feature of the park that you've learned about in your research. (You can mouse over the map to highlight specific sites where other Google Earth visitors have posted photos. These previously visited sites will appear when you check the Geographic Web box in the Layers menu.) Focus on the site.
- Now, use the "Add Placemark" button (the pushpin-shaped button on the toolbar above the map) and place the pushpin where you want it. Title your placemark and describe what you see. Click "OK." Your placemark will be displayed in the 3D viewer and at the top of the MyPlaces folder in the Places panel. Continue to "fly" over the park and add placemarks in places you want to include on your national park tour.
- Now that you have mapped out your tour, you can use Google Earth's touring feature. Select the check box next to the items in your MyPlaces folder that you want to tour. Click on the Play Tour button at the bottom of the Places panel. The tour will begin playing in the 3D viewer, which will fly to each location and stop for a period of time before flying to the next place on the list. To stop the tour, click the Stop Tour button beneath the Places listing.
- If you want to record a tour narration, use the "Record a Tour" button (the video camera-shaped button on the toolbar above the map). Click on the microphone to start your description of a specific site. You should include information that you've gathered from the National Park Service Web site. Click on the red button to stop the recording. Complete this process for each of your "placemarked" sites in the park.
- Now you can share your tour with others by playing it back. You can also e-mail your tour by using the tool bar.