Create a Park Atlas

Where are parks located in my community, in my state, and across the U.S.? Why are places designated as parks?

Overview

Students use digital maps to explore parks at different scales: the neighborhood, town, state, and national levels. They create an atlas entry for one park, featuring both environmental and cultural characteristics. They combine their entries to make a classroom atlas.

For the complete activity with media resources, visit:
http://education.nationalgeographic.org/activity/create-park-atlas/

With Support From

Directions

1. Introduce the assignment.

Ask students if they have heard of the Grand Canyon, and show them the photo. Ask: *Who do you think owns the Grand Canyon?* After students share their ideas, explain that all U.S. citizens own the Grand Canyon National Park. Explain that our tax contributions pay for parks like the Grand Canyon, and that parks are places we all can enjoy.

Ask students to raise their hands if they have ever been to a park. On the board, list some names of parks they have visited or heard about. Then ask them to raise their hands if they have ever been to a state park, and to keep it in the air if they have been to a national park. Talk about how different types of parks—neighborhood, local, state, and national—are managed by different groups of people and are paid for by different groups of taxpayers. Circle each type of park on the list you created with a different color. Explain that students will use a digital map to find parks on the neighborhood, local, state, and national levels.

2. Use a digital map to explore parks at different scales.

Divide students into groups of two or three. Distribute a copy of the Locating Parks at Different Map Scales worksheet to each group, and provide computer access and a ruler for each group. Guide
students through the following steps:

- Open the National Geographic MapMaker Interactive.
- Enter the address of your school. Locate the map scale. Ask: *What does this map scale tell us?* Complete the second column for “neighborhood” on your graphic organizer by having students measure the length of the map scale and writing the value in the space, such as 1 centimeter = 1/2 kilometer.
- Look at the patches of green on the map near the school. Ask: *Is it a park? How can you tell?* If necessary, zoom in until you can see the name on each green space, and record the name in the third column, Parks Visible at this Scale. Look for several neighborhood parks in this way.
- Zoom out until you can see your entire city or town on the map. Locate the map scale. Measure again and enter the map scale in the second column for “city or town” on your graphic organizer. Ask: *How is the map scale different than the first map scale? How is the view different at this map scale than the first view?*
- Find parks on the map at this scale. Zoom in until you can see the names and record them in the third column in the chart.
- Zoom out until you can see your entire state on the map. Ask for student observations about how this view is different from the first two views (e.g. They probably can’t see the green space they noted in the first map view.) Repeat the steps used at the previous levels to fill in the chart for state parks.
- Zoom out until you can see the entire United States. Again, repeat the steps to complete the columns for national parks.

3. **Discuss the change in map scale.**

Ask students to summarize how what was visible on the map changed as the map scale changed. On the board, write a map scale that is between the scales for Park 2 and Park 3. Ask students to infer what would be visible on the map at this scale. Ask for volunteers to share some of the parks they found at each level: neighborhood, city/town, state, and national. Ask: *What differences could you see among the neighborhood parks, city parks, state parks, and national parks?*

4. **Create the Park Atlas entries.**

Ask students if they know what an atlas is, and accept several responses. Show students some examples of atlases, both online and in book format, and discuss their characteristics. Explain that students will work in their small groups to create an entry for a Park Atlas.

Have each group select a park that they identified in the map scale activity. Have each group create a “3-2-1 Strategy Chart” for their park by listing three questions they have about the park, two things that they expect to find in the park, and one thing they know for certain about the park. Distribute the Park Atlas Assignment and Park Atlas Rubric handouts to each group and review the assignment with the class. Have students conduct their research and create an atlas entry for their park as described on the Park Atlas Assignment.
Have students use the National Geographic MapMaker Interactive to generate maps for their entry. They can create a locator map to show where the park is located in their city, state, or country, and also a map of the park.

Students can find National Parks images at the National Parks Digital Images Collection website available above in the resource carousel. There is also a search tool for state parks in the carousel. Be aware of copyrights for any images students use, particularly if you plan to display the completed atlas online. Have students include the source information for any photos they use.

Atlas entries can be created in a number of ways, depending on the technology available in your classroom. Some ideas include static pages in Word, Google Docs, or a similar program; annotations on the Mapmaker Interactive map; slides using PowerPoint, Prezi, etc.; a digital scrapbook using a tool like Smilebox or Mixbook, or other applications available in your classroom. When students have completed their entries, compile them to create a classroom Park Atlas.

**Modification**
If computers are not available for the atlas portion, students can create their entries on paper, using images from magazines.

**Tip**
If possible, take students to the library to view some examples of atlases.

**Tip**
In Step 2, you can also search for specific state and national parks, if students are having a difficult time locating one on the map from the state and national scale.

**Informal Assessment**
- Students should be able to explain how the map scale changes as they look at local to national scales: Each inch or centimeter on the map represented a larger distance (miles or kilometers) as students explore maps at neighborhood to national scales.
- Use the Park Atlas Rubric to assess students’ completed atlas entries. You can also have students create a “Summary 3-2-1 Chart,” listing three things they learned about their park, two things that surprised them, and one question they still have.

**Extending the Learning**
- Have students choose a second park at a different scale and create an atlas entry for that park as well.
- Have students research further and use MapMaker Interactive tools to explore parks. Students can measure distances across or the perimeters of different national parks. They might label and export maps of their own, such as their “Top 10 Parks to Visit,” the most visited national parks based on data they find online, largest and smallest parks, parks with bear species, etc.
Objectives

Subjects & Disciplines

Geography
- Cartography
- Physical Geography

Language Arts
- Writing (composition)

Science
- Ecology

Social Studies
- United States history

Learning Objectives
Students will:

- Navigate to different map scale views on an online interactive map tool.
- Explain how the perspective changes as the map scale changes.
- Create a summary, with maps, of the special features of a park.

Teaching Approach
- Interdisciplinary
- Learning-for-use

Teaching Methods
- Discussions
- Multimedia instruction
- Research
- Writing

Skills Summary
This activity targets the following skills:

- 21st Century Student Outcomes
  - Information, Media, and Technology Skills
    - Information Literacy
  - Learning and Innovation Skills
    - Communication and Collaboration

- 21st Century Themes
  - Environmental Literacy

- Critical Thinking Skills
  - Creating
  - Evaluating
• Understanding
• Geographic Skills
  • Acquiring Geographic Information
  • Organizing Geographic Information
• Science and Engineering Practices
  • Obtaining, evaluating, and communicating information

National Standards, Principles, and Practices

National Geography Standards

• **Standard 1:**
How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Common Core State Standards for English Language Arts & Literacy

• **Reading Standards for Informational Text K-5:**
Integration of Knowledge and Ideas, RI.3.7

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Integration of Knowledge and Ideas, RI.5.7

• **Writing Standards K-5:**
Text Types and Purposes, W.3.2

• **Writing Standards K-5:**
Production and Distribution of Writing, W.3.4

• **Writing Standards K-5:**
Research to Build and Present Knowledge, W.3.7

• **Writing Standards K-5:**
Text Types and Purposes, W.4.2

• **Writing Standards K-5:**
Production and Distribution of Writing, W.4.4

• **Writing Standards K-5:**
Research to Build and Present Knowledge, W.4.7

• **Writing Standards K-5:**
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• **Writing Standards K-5:**
Production and Distribution of Writing, W.5.4

• **Writing Standards K-5:**
Research to Build and Present Knowledge, W.5.7

Next Generation Science Standards

• **4-ESS2-2:**
Analyze and interpret data from maps to describe patterns of Earth’s features.
Preparation
What You’ll Need
Materials You Provide
- Paper
- Pencils
- Rulers

Required Technology
- Internet Access: Required
- Tech Setup: 1 computer per small group

Physical Space
- Classroom

Setup
Arrange the room so students can work in small groups, and each group has access to a computer.

Grouping
- Large-group instruction

Resources Provided: Handouts & Worksheets
- Park Atlas Rubric
- Create A Park Atlas Entry

Background & Vocabulary
Background Information
In the United States, parks are available for public use at the neighborhood, town, state, and national level. Neighborhood parks are usually the smallest of the parks. They often include a playground and walking paths and are largely expected for the use of people in the nearby neighborhood. City and town parks have many similarities to neighborhood parks, but they may also include more specialized features that draw visitors from outside of the immediate neighborhood, such as swimming pools, sports fields, amphitheaters, etc. Neighborhood and town/city parks are usually funded and maintained by the local city or county government. Sometimes volunteer non-profit organizations help with running and funding these parks as well.

State parks are set aside by state governments to preserve natural, historic, or cultural features and/or to provide recreational opportunities, and the state provides funding and administration for these parks. State parks are often established where there is something of natural or historic significance, such as a lake, a battlefield, or a unique geographic feature. There are more than 7000 state parks in the United States that collectively see more than 720 million visits each year.
National parks include a wide variety of sites of natural, historic, or cultural significance designated and funded by the United States government. These parks are usually operated by the National Park Service. Types of national parks include National Seashores, National Memorials, National Monuments, National Parkways, National Historic Sites, National Battlefields, and others.

Prior Knowledge
[]

Recommended Prior Activities
- None

Vocabulary

<table>
<thead>
<tr>
<th>Term</th>
<th>Part of Speech</th>
<th>Definition</th>
</tr>
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<tbody>
<tr>
<td>atlas</td>
<td>noun</td>
<td>a collection of maps.</td>
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<tr>
<td>map scale</td>
<td>noun</td>
<td>relationship between distance on a map and distance on the ground.</td>
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For Further Exploration

Websites
- National Park Service Digital Image Collection
- National Park Service Find a Park

None
- MapMaker Interactive

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