

BioBlitz 1: What National Park Is It?

Middle School Scientists Curriculum

Class Time Required:

1 class period (50-65 minutes)

Extension (30-45 minutes)

Materials Needed:

- Engagement: Video
- Investigation and Explanation: Attachment 1, "Bioblitz1: What National Park Is It?", Resource Materials (books, textbooks, or internet), Worksheet 1, "BioBlitz 1: What National Park Is It?"
- Extension: Card Stock, Colored Markers

Teacher Preparation: 30-60 minutes to review activity, collect materials, and make copies

Student Knowledge: Basic knowledge of the fifty states and an understanding of the National Park Service

Vocabulary: BioBlitz, organism

Next Generation Science Standards:

• MS-LS4-5 Science and Engineering Practices

Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence

Overview:

To help prepare students to participate in a National Park Service BioBlitz, they will benefit from understanding the variety of national park units in our nation, the location of these sites, and the diversity of organisms found in these parks. The National Park Service administers sites designated as national parks, as well as national battlefield parks/sites, national monuments, national memorials, national seashores, national lakeshores, national recreation areas, national historical parks, and other areas. This activity challenges students to look at different pictures of national park sites and try to guess which park the picture represents. The pictures page gives a distinguishing feature of each park and an interesting fact to help students match to the list of possible choices.

Overview and Background Information:

The National Park Service (NPS) is an agency of the United States federal government. It was created in the Organic Act of 1916. The new agency's mission was: "...to *conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.*"

NPS is responsible for overseeing parks with distinguishing natural resource value, as well as areas with significant historical, recreational, and scientific value. There are more than 400 national park units including: national parks, national preserves, national battlefield parks/sites, national military parks, national historical parks/sites, national monuments, national memorials, national recreation areas, national seashores, national lakeshores, national rivers, and more. For further information about the National Park Service, visit <http://www.nps.gov/index.htm>

Many parks are planning special events for the 100th anniversary of the National Park Service in 2016, including BioBlitzes that will occur simultaneously in park sites across the United States. A BioBlitz is a short term (usually 24-48 hour) event in which people of all ages, backgrounds, and educational levels partner with scientific experts to discover living organisms in a given geographic area. For further information about the National Park Service Biodiversity Discovery (including BioBlitzes) program, go to this website: <http://www.nature.nps.gov/biology/biodiversity/biodiversitydiscovery.cfm>

Focus Questions:

Which national park unit is closest to my school?

Why are national parks important to the American people?



Learning Target: I can describe different kinds of areas that are preserved by the National Park Service.

Engagement:

(10-15 minutes)

Below are links to short videos that could be shown before the activity. Several are specifically about the National Park Service/National Geographic Society BioBlitzes and would be good introductions if planning on conducting your own BioBlitz or one in conjunction with a government agency. All of the videos are less than four minutes in length.

https://www.youtube.com/watch?v=MP3p_BnHofk&list=UUj_0DU9KRP_bQp_cOL4Ljbg

http://education.nationalgeographic.com/education/media/imani-bioblitz/?ar_a=1

<http://newswatch.nationalgeographic.com/2014/04/04/bioblitz-finds-2300-species-in-golden-gate-parks-video>

<http://eowilsonfoundation.org/inspired-by-nature/>

The following video is about the National Park Service and its upcoming 100th anniversary. It is located on the National Parks Conservation Association website and is approximately four minutes in duration: <http://www.npca.org/about-us/2016film>
After showing, there is an interesting map interactive that shows parks in a selected state or area or by topic: <http://www.nps.gov/findapark/index.htm>

Investigation:

(25-30 minutes)

Which national park is it? When asked for the names of national parks, most students will mention the big scenic parks: Yellowstone, Yosemite, Grand Canyon, etc... but many people are not aware of the many parks that exist all across the United States. This activity gives students a chance to guess which park belongs to which picture. The pictures represent a cross section of different types of parks in different locations across the United States.

The picture and clue, Attachment 1, "Bioblitz1: What National Park is It?", come directly from each specific national park website. If using book resources, it is suggested that the instructor give the students a list of the answers to match with the pictures. If using the internet, limit information to that found on the park picture page.

Explanation:

(15-20 minutes)

Record answers on Worksheet 1, "BioBlitz 1: What national park is it?" with the name of the park unit, location, and another interesting fact about that park.

Extension:

(30-45 minutes)

Bumper Sticker: Give each student a piece of cardstock in a bumper sticker size (3 X 11 inches) to create their own bumper sticker for their favorite national park unit. The bumper sticker should include a picture representative of their park and the name should be easy to read and include the state where it is located.

References:

United States. National Park Service. "U.S. National Park Service- Find A Park." *National Park Service*. U.S. Department of the Interior, 21 June 2014. Web. 18 July 2014. <<http://www.nps.gov/findapark/index.htm>>

United States. National Park Service. "U.S. National Park ServiceHistory." *National Parks Service*. U.S. Department of the Interior, 20 June 2014. Web. 14 July 2014. <<http://www.nps.gov/aboutus/history.htm>>