Teacher Guide

Inventory and Monitoring Program Manager: Apostle Islands National Lakeshore

Covered Concepts:

Reading Comprehension: Sections 1 & 2
Find Percentages using data from a table: Section 3
Supporting a claim in writing using logical reasoning and relevant data: Section 4

Section 1: The Inventory and Monitoring Program

- **Vocabulary:**
  - Inventory and Monitoring Program, Inventory and Monitoring Program Manager, Monitoring, Inventory
- **Learn:**
  - Students read about the National Parks Service and how they make sure national parks stay healthy using the Inventory & Monitoring Program.
- **Career Highlight:**
  - Students read about the role of an Inventory & Monitoring Program Manager
- **Content Check:**
  - Students answer questions about:
    - National Parks Service
    - The Inventory & Monitoring Program
    - Managers of the Inventory & Monitoring Program

Section 2: Apostle Islands National Lakeshore

- **Learn:**
  - Students will read about the Apostle Islands National Lakeshore, a national park located in Wisconsin.
- **Content Check:**
  - Students read and answer questions about: The Apostle Islands National Lakeshore.

Section 3: Math Practice

- Students will find percentages using provided data in a table format.

Section 4: ELA Practice

- Students will write a speech that brings awareness to how a production plant is harming a nearby national park. They must use provided data in order to support their claims.

Teacher Guide: Answer Keys

Content Check: Inventory & Monitoring Program

1. What is the main purpose of the Inventory and Monitoring Program? Why is it important?
The Inventory and Monitoring Program collects information about what natural resources, e.g., plants, animals, rock formations, or water bodies, exist in the parks. People working in the program also observe and measure specific park natural resources in order to better understand their condition. The information they collect helps parks make science-based management decisions that help us preserve America's special parks.

2. How many different "networks" of parks are there in the United States and how are they separated?
There are 32 "networks." Network boundaries are based on geography and the natural resource characteristics parks have in common.

3. What is the job of an Inventory and Monitoring Manager?
Inventory and Monitoring Managers oversee the program and employees who take inventory and monitor the national parks. They are in charge of planning, managing, implementing, and coordinating all aspects of the program.

Content Check: Apostle Islands National Lakeshore

1. Where is the Apostle Islands National Lakeshore located?
In northwestern Wisconsin, off the Bayfield Peninsula in Lake Superior.

2. Name at least two trees and two animals that can be found in the Apostle Islands National Lakeshore.
Answers will vary.

3. There are many reasons people visit the Apostle Islands National Lakeshore. Which activity mentioned in the article would you most like to do if you were to visit?
Answers will vary. Must be an activity mentioned in the article: camping, sailing, powerboating, sea kayaking, fishing, hiking, visiting a lighthouse, or scuba diving.

Math Practice

How many trees were inventoried in total: 101

What percentage of the trees were Black Ash? 14.9%

What percentage of the trees were Jack Pine? 10.9%

How many trees were inventoried in total: 129

What percentage of the trees were Balsam Fir? 19.4 %

What percentage of the trees were Great Lakes White Pine? 14%

Teacher Guide: Answer Keys

ELA Practice

Is there a difference in the number of fish species living in the lake before the production plant was built compared to after?

Yes. In the years 2011-2015 the number of different fish species present in the lake was between 9-10. Since the production plant was built in 2016 the number of fish species living in the lake has gone down each year and is much lower than the years before the plant was built.

Are there differences in the air quality in the years before the plant was built compared to after the plant was built? Explain your answer.

Yes, the air quality in the years before the plant was built was always in the "good" range. Since the plant was built in 2016, the AQI has increased each year and in 2020 the air quality was in the "unhealthy" range.

Are there differences in the bears' weights and health in the years before the plant was built compared to after the plant was built? Explain your answer.

Yes. The data shows that the weight and health of each bear was good until the production plant was built. The data collected after 2016 shows the bears' weight decline each year as well as their health.