

Ecosystem Explorers

Teacher's Guide

Subject: Integrated Science (Life; Earth-Space; Physical), Geography

Topic: Adaptations, Limiting Factors, Observation, Classification, Navigation/Orienteering, interdependence

Summary: Students will be given a map, compass and plant identification guide and will have to navigate to each waypoint using teamwork. When at each point they will use a guide book to discuss and identify each plant found and its related adaptations.

Objectives: After completing the field lab, students will be able to:

1. Navigate effectively using a map and compass
2. Describe three adaptations of plants in the Savannas
3. Identify plants using a field guide
4. List three human uses of plants found in the Savannas

Ecosystems: Pine Flatwoods, Ecotone, Basin Marsh

Equipment: Map Compass Field Guide

Background:

- **Vocabulary:** ecosystem, habitat, ecotone, orienteering, adaptation, fire dependant, topography
- **Reference Materials:** 'Ecosystems of the Savannas' PowerPoint presented at school prior to field lab; demonstration of compass use and compass activity.
- **Equipment Training:** map, compass

Procedure (Engage; Explore; Explain)

1. Students will gather at the canoe launch for a brief introduction to the Savannas ecosystems – an overview of the outreach program they had at school.
2. A leader will demonstrate how to use the map and compass
3. Students will rotate as map 'map reader', 'compass navigator', and 'field guider'
4. Each student will have an opportunity to assist in the program.
5. Students will record the name of each plant identified and will write down at least one of the adaptations discussed.
6. Students will navigate to the end of the course and then discuss what they've learned through observation and make sure they have filled out their data sheet.

Sunshine State Standards:

Science: SC.7.L.15.2; SC.7.L.17.2; SC.7.L.17.3

Southport Panthers at Savannas Preserve State Park Ecosystem Explorers Data Sheet

Name:	Date:
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Write the plant name and at least one adaptation or interesting feature about the plant at each marker that you stop at.

Plant Name	Adaptation or Interesting Feature
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	
11.	
12.	
13.	
14.	
15.	
16.	
17.	
18.	
19.	
20.	
21.	
22.	
23.	

Savannas Ecosystem Explorers Vocabulary

Southport Panthers Experience

Habitat	The place or environment where a plant or animal naturally or normally lives and grows.
Ecosystem	All organisms living in a given place and surviving by interacting with other living and non-living components in the system as a single larger unit.
Ecotone	A transitional area between two adjacent ecological communities.
Orienteering	A type of navigation where participants use a map and compass to travel between checkpoints along an unfamiliar course.
Adaptation	The ability for an organism to change to be able to survive in its environment.
Fire Dependant	Natural communities requiring prescribed burning on different fire-return intervals to maintain healthy habitats.
Topography	A way to show relative position and elevation on maps and charts.

Inset map here. Have students section off each different ecosystem.