

Everglades Habitat Mat Bundle

Guide to Presentation

The panther creeps slowly from the hammock.



fish

Everglades Habitat Mat

(suitable for children 3 to 12 years of age)

Contents of Everglades Habitat Mat:

- Guide to Presentation
- Everglades Habitat Mat
- 30 Everglades Habitat Mat Fact File cards with wooden box
- 30 Everglades Habitat Mat cutouts
- Animal Control Chart
- Food Chain Chart with wooden sun, 6 Relationship Discs, and 17 Energy Transfer Arrows
- Story Sequence Cards
- Grammar Labels with wooden box
- Grammar Sentences with wooden box
- Math Word Problems with wooden box
- wooden storage box with trays and divider

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Everglades Habitat Mat

Cutouts Control Chart



algae



muskgrass



fanwort



hydrilla



pondweed



tape grass



sawgrass



red mangrove



Needham's
skimmer



water
boatman



Schaus
swallowtail



pink shrimp



red swamp
crayfish



Florida
applesnail



water
moccasin



snapping
turtle



American
alligator



coastal
shiner



tadpole
matdorm



Florida gar



pig frog



snail kite



mallard



osprey



roseate
spoonbill



American
flamingo



great blue
heron



Florida
water rat



















raccoon



Florida
panther

icons

	all continents		plant
	North America		arthropod
	South America		mollusk
	Europe		reptile
	Africa		fish
	Asia		amphibian
	Oceania		bird
	wetlands		mammal

First Presentation: The Biome

You will need: Everglades Habitat Mat, an atlas showing the location of the Everglades (or a Waseca Biomes North America Puzzle Map or Biome Mat).

Purpose: To learn about a wetlands biome.

1. Unroll the Everglades Habitat Mat. Encourage the children to make observations of the picture. Name the place as the Everglades. Take out your atlas (or the North America Biome Puzzle Map or Biome Mat) and find the Everglades at the tip of the Florida peninsula. Find Lake Okeechobee on the map. Many rivers flow into the lake. Explain how the lake fills and overflows into a very wide river that flows very slowly into the ocean at the end of the peninsula. This wide and shallow river is the Everglades.
2. Discuss how wetlands are flooded by water for all or part of the year. Some wetlands have trees and are called swamps. Find the edge of the swamp on the mat. Some wetlands have grass and are called marshes. Marshes can be fresh water or, if they are near the ocean, salt water. The Everglades is a freshwater marsh.

3. Find the areas of open water. Explain how the grass grows out of the water and some areas that look like land might be flooded in shallow water. Notice the islands of trees in the grass. These islands are called hammocks. Different kinds of plants grow here out of the water.

Second Presentation: Plants

You will need: Everglades Habitat Mat, cutout pieces, serrated knife, samples of nutgrass and algae (if available).

Purpose: To familiarize the children with the various plants that can be found in wetland.

1. Sort out the cutout pieces into plants and animals. Discuss how plants take energy from the Sun to make food. Animals cannot live without plants.
2. Find the cutout sawgrass piece and match it to its place on the mat. Notice all of the sawgrass on the mat. Sawgrass is not actually grass! It is a type of plant called a sedge. It has long narrow leaves like a grass plant, but it does not have nodes from which the leaves grow. The leaves have a sharp serrated edge. Show the children a serrated knife. The roots grow horizontally under the soil. This plant can spread and take over space from other plants. If you can find a sample of Nutgrass (*Cyperus rotundus* - a common weed also from the sedge family), have them examine the triangular stem and the rhizome of this plant as an example of a sedge. Many animals including birds and alligators build nests in the sawgrass.
3. Read the names of the other plants (algae, muskgrass, fanwort, hydrilla, pondweed, tape grass, and red mangrove) and note if they grow under the water (submerged) or grow up out of the water (emergent). Note that the algae is actually a colony of microscopic plants. Many animals feed on the algae. If possible, show the children a sample of algae (it can often be found growing in a pond or aquarium).
4. Older children can try to identify other plants found on the mat such as those on the hammocks.

Third Presentation: Animals

You will need: Everglades Habitat Mat, cutout pieces, Everglades Habitat Mat Fact File Cards.

Purpose: To explore the diversity of animals living in the Everglades.

1. Sort out the cutout pieces into plants and animals. Discuss how plants take energy from the Sun to make food. Animals cannot live without plants. Some animals eat plants and others eat plant-eating animals.
2. Younger children can match each animal to its corresponding picture on the mat as the guide names the animal. The guide may limit the number in the beginning. A three-period lesson to learn the names of the animals can follow. Instead of merely pointing to the animal, have the child make the animal fly, swim, crawl, dive, etc. Place the animals across the room and have the child retrieve them and match them to the mat.*

3. Older children can find the Everglades Habitat Mat Fact File Card for each animal as it is introduced and either read or listen to learn interesting facts about the animal.

* If you have our North America Animal Cards, this would be a great opportunity to incorporate them into your lesson for further facts and information about the animals.

Fourth Presentation: Plant and Animal Relationships

You will need: Everglades Habitat Mat, cutout pieces, Food Chain Chart, Relationship Discs, Energy Transfer Arrows.

Purpose: To establish an understanding of transfers of energy in a food chain. To help the children explore the relationships between the living things in a wetland biome.

1. Make a food pyramid of the plants and animals by placing all of the plants in a row at the bottom of the work mat. On the next row, place animals that only eat plants. On the next row, place animals that eat those animals. At the top of the food pyramid place the alligator. Use the Fact File Cards to determine what eats what.
2. Next, use the side of the Food Chain Chart with four places around the sun. Ask the children where energy comes from. Note the sun in the middle of the chart. Follow the arrow to the green circle. Ask what goes there. Find plant from the cutout pieces and place it on the green circle. Follow the arrow to the next black circle. Find an animal that eats the plant and place it there. Follow the arrow to the next circle and find an animal that eats that animal. Continue around the sun, following the arrows. Ask the children, or explain how, the energy from the animals goes back to the plants from the waste they produce and their bodies when they die. Use the other side of the chart for greater challenge.
3. Older children can find the Fact File Card for each animal as it is introduced and either read or listen to learn interesting facts about the animal.
4. Older students may use the Relationship Discs to illustrate the relationships between specific species. The + sign indicates that a plant or animal receives energy. The - sign indicates that it loses energy. The 0 indicates no loss or gain of energy. Choose two samples from the cutout pieces and place the appropriate discs beside each to illustrate their particular relationship. For example in a predator/prey relationship, the alligator has the + sign and the heron has the - sign. Students might do research to find symbiotic relationships where both species benefit (two + signs). In competitive relationships (two - signs), both species lose energy. Competitive species will find a niche in the ecosystem where they can avoid competition because of this energy loss.
5. You can further the lesson using the Energy Transfer Arrows. These arrows have written descriptions of common actions in energy transfers. For example "gives energy to" can be used to describe the Sun's energy transfer to a plant. It can also be used to describe an animal eating a plant. There are 12 phrases on the Energy Transfer arrows. Not all may be applicable to this biome, but they can be used with the plants and animals included, further plants and animals that the children research, and for Food Chain activities for other biomes and ecosystems.

Fifth Presentation: Storytelling

You will need: cutout pieces (raccoon, Florida water rat, roseate spoonbill, American alligator), Story Sequence Cards, Everglades Habitat Mat.

Purpose: To actively engage the children in enacting contextual relationships between the animals.

1. Take out the relevant cutout pieces and identify them.
2. Put the picture cards in sequential order and, referring to the text cards, tell the story "The Bandit in the Night" as you place the cards down in front of the child from left to right.
3. After the child has practiced reenacting the story to the point of becoming familiar with the sequence of action, invite the child to "perform" the story and tell it at the same time.
4. Once the child can confidently tell the story, ask if she would like to gather a small audience for a performance.
5. The story may also be told by the child on the circle, inviting classmates to play the different animals in the story and listen for the storyteller's narrative to determine their action.

Sixth Presentation: Grammar Labels

You will need: cutout pieces, Grammar Labels.

Purpose: To practice grammar skills while learning about the plants and animals of the Everglades.

Note: The following steps are to be introduced in separate lessons and may be practiced independently between lessons. You may wish to fill the box with the parts of speech as they are introduced.

1. Take out the noun cards (they are black) and match them to the cutout pieces. Some nouns name places that can be matched to locations on the mat. This step may be repeated using the cards as sight words for reading practice.
2. After matching the noun cards, take out the article cards (light blue) and "introduce" each noun with an appropriate article. Notice that any plural nouns require the article "the." Make a distinction between the use of "a" and "an."
3. Take out the adjective cards (blue) and read them. Ask the children if that word describes any of the nouns. Have them place the adjectives with the matching article and noun to make a phrase. Experiment with placement to see if it makes sense.
4. Choose 10 to 15 noun cards and find appropriate adjectives for them. Invite children to match the nouns with an adjective.
5. Take out the verb cards (red). Have the children perform the actions. Find a noun to match the verb. Add an article and, possibly, an adjective to make a sentence.
6. Choose 10 to 15 noun cards and find appropriate verbs for them. Invite children to match the noun with a verb.

7. Choose an animal from the cutout pieces and place the animal in various positions in relation to the water (ex. under, above, in). Make a sentence such as "The alligator is out of the water." using the green preposition cards. Change the preposition and change the position of the animal to match. Choose an action verb such as "swims" and experiment with other prepositions.
8. Build a sentence beginning with the action. Add the subject. Who or what performed the action? Next, add an adverb (orange cards). How, when, or where was the action performed?
9. Make a list of 5 or 6 animals that live in the wetlands using a conjunction (pink cards) between each name. Show the children how you can replace all but the last "and" with commas.
10. At any of the above levels, the children may work independently to compose a sentence about the animals in the Everglades using the Grammar Labels. Have extra colored strips to use to make words that are not included. Use the Fact File Cards as reference for information about the animals.

Seventh Presentation: Grammar Sentence Strips

You will need: Everglades Habitat Mat, cutout pieces, Grammar Labels, Grammar Sentences, Grammar Symbols*, Grammar Stencil*.

Purpose: To practice identifying the parts of speech.

** sold separately*

Note: The following steps are to be introduced in separate lessons and may be practiced independently between lessons.

1. Begin with the blue phrase strips. Have the child read the phrase and match it to the corresponding cutout piece. Have the child find the noun and place the noun Grammar Symbol (black triangle) above it. Find the article that introduces the noun and place the article Grammar Symbol (smallest blue triangle) above it. Find the adjective that describes the noun and place the adjective Grammar Symbol (large blue triangle) above it. The corresponding Grammar Labels can be sorted from the box prior to the lesson so that the child might build the phrase using cards from stacks of articles, adjectives, and nouns. The phrase can then be copied and symbolized using the Grammar Stencil.
2. Using the red sentence strips, have the child read the sentence and perform the action with the cutout piece. Use the Grammar Labels to build the sentences word by word. Symbolize and record the sentence by drawing the symbols above the words.
3. Using the green strips, have the child read the sentence and place the cutout pieces on the mat in the positions indicated. Use the Grammar Labels to build the sentences word by word. Symbolize and record the sentence by drawing the symbols above the words.
4. Using the orange sentence strips, have the child read the sentence and perform the action in the manner indicated. Use the Grammar Labels to build the sentences word by word. Symbolize and record the sentence by drawing the symbols above the words.

Eighth Presentation: Word Problems

You will need: Everglades Habitat Mat, Word Problems on three levels, Everglades Habitat Mat Fact File Cards.

Purpose: To introduce the use of math to gain a deeper understanding of ecological principles and to experience math in a relevant context.

1. Level One word problems involve the four operations and can be used with concrete materials such as the Bank Game or Stamp Game to find the answer. In the beginning, the guide may work with the students to help them understand the problem and how to find the answer. Some problems involve comparisons of height and weight.
2. Level Two word problems involve added steps in the process of finding the answer using the basic operations.
3. Level Three word problems involve decimals, percentages, and ratios for older students. You will also find problems that require calculations of square footage and adding units of measure