

Odyssey Earth 360-Degree Videos and Field Observation Datasheets

Dive a little deeper to introduce your students to the watery world of the Everglades!

Directions: Follow along with Richard Kern from Odyssey Earth as he explores different habitats of the Everglades using a drone with a 360-degree camera.

Click on the website: <http://www.odysseyearth.com/video-category/everglades-360/> and explore the 360-degree videos on habitats such as the Cypress Dome, Mangrove Swamp, Sawgrass Prairie, Seagrass Meadow, and more! Use your cursor to scroll up, down, and all around to view the habitats.

Each video comes with a field guide and scavenger hunt questions created by Odyssey Earth.

Then, use our Field Observation Datasheets to complete a digital field study of the habitats (attached below).

- [Cypress Dome Field Datasheet](#)
- [Mangrove Fringe Field Datasheet](#)
- [Sawgrass Prairie Field Datasheet](#)
- [Seagrass Meadow Field Datasheet](#)
- [Teacher Guide with Answer Key](#)

Standards: SC.3.N.1.1, SC.3.N.1.2, SC.3.N.1.3, SC.4.N.1.1, SC.4.N.1.6

Everglades Literacy Lesson Connection:

<https://www.evergladesliteracy.org/third-grade>

Grade 4 Lesson 3: Hurry for a Habitat!

-Students will use a relay race activity to reinforce knowledge gained in Lesson 1, the different habitats of the Everglades, and the flora and fauna found in each one





Name: _____

Cypress Dome Field Datasheet

Directions: Go on a field exploration using the [Odyssey Earth Interactive 360 video](#) of the Cypress Dome. Immerse yourself in this natural habitat by using this video that allows you to look at it from a 360-degree perspective. Explore by pausing the video, and then using the cursor to look up, down, and all around.

Download the [Field Guide](#) before you go on your journey. It will help you to identify plant and animal species that are common to this habitat.

Part 1: Identifying Abiotic Factors

Abiotic Factors are the nonliving factors in an environment that affect organisms. They may include air, water, temperature, soil type, landforms, sunlight availability, latitude, and elevation.

Use your current location on your digital device to identify the following abiotic factors below.

Note: Scientists will record this information at the actual physical location of the site.

Date: _____

Time: _____ a.m. p.m.

Weather Conditions

Temperature: _____ (°C or °F)

Sunlight Availability (Check one): sunny _____ cloudy _____ partly cloudy _____ rainy _____

Part 2: Field Observations

As you watch the video, listen for the whistle alert, pause the video, navigate through the location, and use the [Odyssey Earth Field Guide](#) to help you to identify or tag different species or features.

Pause the video at :22. Take a quick look around to observe your field site. Answer the questions below.

1. Are the trees close together or far apart? _____
2. Are there plants growing from the trees? _____
3. What is the color of the water? _____
4. Do you think this is freshwater or saltwater? Explain your answer.

Species Identification

5. Tag #1 – Identify the plant, animal or feature

- poison wood
- cardinal air plant
- mistletoe

Field Note 1: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 1

6. Tag #2 – Identify the plant, animal or feature

- jingle bell orchid
- strangler fig
- ghost orchid

Field Note 2: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*

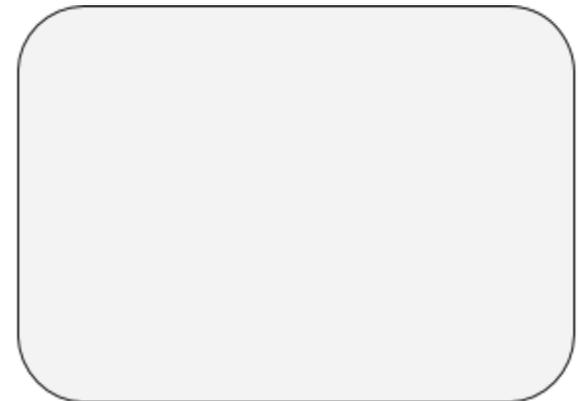


Field Note 2

7. Tag # 3 – Identify the plant, animal or feature

- American alligator
- alligator gar
- water moccasin

Field Note 3: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 3

Did you hear the mosquitos? For 8 and 9, use your senses to make two other observations from your visit to the cypress dome. List them in the space below.

8. _____

9. _____

10. In your own words, explain how the cypress dome is critical to the Everglades.



Name: _____

Mangrove Fringe Field Datasheet

Directions: Go on a field exploration using the [Odyssey Earth Interactive 360 video](#) of the mangrove fringe. Immerse yourself in this natural habitat by using this video that allows you to look at it from a 360-degree perspective. Explore by pausing the video, and then using the cursor to look up, down, and all around.

Download the [Field Guide](#) before you go on your journey. It will help you to identify plant and animal species that are common to this habitat.

Part 1: Identifying Abiotic Factors

Abiotic Factors are the nonliving factors in an environment that affect organisms. They may include air, water, temperature, soil type, landforms, sunlight availability, latitude, and elevation.

Use your current location on your digital device to identify the following abiotic factors below.

Note: Scientists will record this information at the actual physical location of the site.

Date: _____ Time: _____ a.m. p.m.

Weather Conditions

Temperature: _____ (°C or °F)

Sunlight Availability (Check one): sunny _____ cloudy _____ partly cloudy _____ rainy _____

Part 2: Field Observations

As you watch the video, listen for the whistle alert, pause the video, navigate through the location, and use the [Odyssey Earth Field Guide](#) to help you to identify or tag different species or features.

Pause the video at :22. Take a quick look around to observe your field site. Answer the questions below.

1. Are the mangrove tree roots close together or far apart? _____
2. Are the mangrove roots fully submerged, partially submerged, or not submerged in the water?

3. What is the color of the water? _____
4. Do you think this is freshwater or saltwater? Explain your answer.

Species Identification

5. Tag #1 – Identify the plant, animal or feature

- barracudas
- mangrove snappers
- moray eels

Field Note 1: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 1

6. Tag #2 – Identify the plant, animal or feature

- prop-roots
- pneumatophores
- leg-roots

Field Note 2: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*

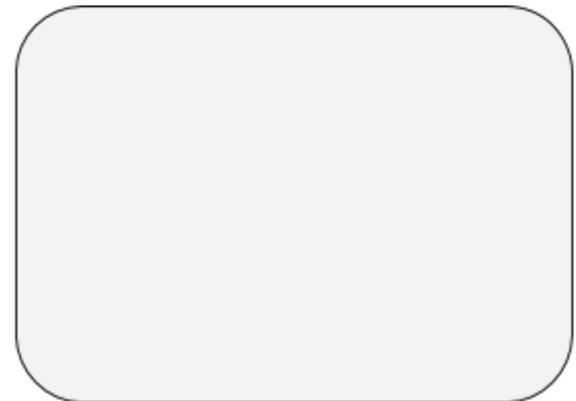


Field Note 2

7. Tag # 3 – Identify the plant, animal or feature

- prop-roots
- mangrove tree-slugs
- propagules

Field Note 3: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 3

8. On the line below, record one additional observation that you found interesting while on your visit in the mangrove fringe. Remember an observation uses our senses!

9. Using your field guide, list the different species of mangroves that are typically found in the Everglades.

10. In your own words, explain how the mangroves are critical to the Everglades ecosystem.



Name: _____

Sawgrass Prairie Field Datasheet

Directions: Go on a field exploration using the [Odyssey Earth Interactive 360 video](#) of the sawgrass prairie. Immerse yourself in this natural habitat by using this video that allows you to look at it from a 360-degree perspective. Explore by pausing the video, and then using the cursor to look up, down, and all around.

Download the [Field Guide](#) before you go on your journey. It will help you to identify plant and animal species that are common to this habitat.

Part 1: Identifying Abiotic Factors

Abiotic Factors are the nonliving factors in an environment that affect organisms. They may include air, water, temperature, soil type, landforms, sunlight availability, latitude, and elevation.

Use your current location on your digital device to identify the following abiotic factors below. *Note: Scientists will record this information at the actual physical location of the site.*

Date: _____

Time: _____ a.m. p.m.

Weather Conditions

Temperature: _____ (°C or °F)

Sunlight Availability (Check one): sunny _____ cloudy _____ partly cloudy _____ rainy _____

Part 2: Field Observations

As you watch the video, listen for the whistle alert, pause the video, navigate through the location, and use the [Odyssey Earth Field Guide](#) to help you to identify or tag different species or features.

Watch the video from :04 to :20. Take a quick look around to observe your field site.

Answer the questions below.

1. Which season is it--wet or dry? _____
2. What kind of rock can you see in the ground? _____
3. What is the color of the water? _____
4. Do you think this is freshwater or saltwater? Explain your answer.

Species Identification

5. Tag # 1- Identify the plant, animal or feature:

- blue hole
- under-ground river
- solution hole

Field Note 1: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*

Field Note 1

6. Tag # 2- Identify the plant, animal or feature:

- swamp lily
- bladderwort
- Cattail

Field Note 2: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*

Field Note 2

7. Tag # 3 – Identify the plant, animal or feature:

- periphyton
- primordial ooze
- alligator scat

Field Note 3: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*

Field Note 3

8. How is the sawgrass prairie connected to the iconic nickname for the Everglades, *River of Grass*?

Watch the video from 2:12 to 2:17. Use your senses to listen and watch what happens.

9. What sound do you hear? _____

10. Do you think that the sawgrass prairie is close to where people live and/or work? Explain your answer. _____



Name: _____

Seagrass Meadow Field Datasheet

Directions: Go on a field exploration using the [Odyssey Earth Interactive 360 video](#) of the seagrass meadow. Immerse yourself in this natural habitat by using this video that allows you to look at it from a 360-degree perspective. Explore by pausing the video, and then using the cursor to look up, down, and all around.

Download the [Field Guide](#) before you go on your journey. It will help you to identify plant and animal species that are common to this habitat.

Part 1: Identifying Abiotic Factors

Abiotic Factors are the nonliving factors in an environment that affect organisms. They may include air, water, temperature, soil type, landforms, sunlight availability, latitude, and elevation.

Use your current location on your digital device to identify the following abiotic factors below. *Note: Scientists will record this information at the actual physical location of the site.*

Date: _____

Time: _____ a.m. p.m.

Weather Conditions

Temperature: _____ (°C or °F)

Sunlight Availability (Check one): sunny _____ cloudy _____ partly cloudy _____ rainy _____

Part 2: Field Observations

As you watch the video, listen for the whistle alert, pause the video, navigate through the location, and use the [Odyssey Earth Field Guide](#) to help you to identify or tag different species or features.

Watch the video from :20 to :32. Take a quick look around to observe your field site.

Answer the questions below.

1. Describe what the seagrass looks like. _____

2. What is the color of the water? _____

3. Do you think this is freshwater or saltwater? Explain your answer.

Species Identification

4. Tag # 1 – Identify the plant, animal or feature:
- hammerhead shark
 - nurse shark
 - southern stingray

Field Note 1: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 1

5. Tag # 2 – Identify the plant, animal or feature:
- spotted trunkfish
 - American crocodile
 - goliath grouper

Field Note 2: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 2

6. Tag # 3 – Identify the plant, animal or feature:
- bald cypress
 - pond apple
 - red mangrove

Field Note 3: From your field observations, make a sketch of a species you have identified. **Pause the video and look around.*



Field Note 3

7. List 2-3 reasons why seagrass is important.

8. From the Field Guide, list 3 types of seagrasses that may be found in Florida Bay.

9. From the Field Guide, list 2 animal species who eat seagrasses.

10. In your own words, explain why you think the seagrass meadows are important to the Everglades ecosystem



Teacher Guide

Cypress Dome Field Datasheet

Part 1: Identifying Abiotic Factors

Answers will vary depending on student locations, time, day, and weather conditions. It is important for students to understand that both abiotic and biotic factors are recorded for field study and/or field observations. Scientists will collect data from the actual site location.

Part 2: Field Observations

1. Are the trees close together or far apart? Most of the trees are in close proximity to each other.
2. Are there plants growing from the trees? Yes, there is a variety of different plant species (epiphytes and lichen) growing from the trees.
3. What is the color of the water? Dark-colored water. Note: Usually, the water is clear but it appears dark because of the dark sediment and debris on the bottom.
4. Do you think this is freshwater or saltwater? Freshwater, the cypress dome is found in a wetland area which is freshwater. Bald cypress trees need freshwater to grow.
5. Tag 1- **cardinal air plant**; Field note 1 sketch will vary. Use the field guide as a reference.
6. Tag 2- **ghost orchid**; Field note 2 sketch will vary. Use the field guide as a reference.
7. Tag 3- **American alligator**. Field note 3 sketch will vary. Use the field guide as a reference.
8. Student observations will vary but check for understanding, confirming these are observations and not inferences. Students should use their senses to make observations.
9. Student observations will vary but check for understanding, confirming these are observations and not inferences. Students should use their senses to make observations.
10. **The cypress domes are critical to the Everglades because the depression of the land allows for this area to be one of the last places to hold water during the dry season. This provides a water source for the various animals of the Everglades like the American alligator and the Florida panther.**



Mangrove Fringe Field Datasheet

Part 1: Identifying Abiotic Factors

Answers will vary depending on student locations, time, day, and weather conditions. It is important for students to understand that both abiotic and biotic factors are recorded for field study and/or field observations. Scientists will collect data from the actual site location.

Part 2: Field Observations

1. Are the mangrove tree roots close together or far apart? Very close, they are overlapping in most areas.
2. Are the mangrove roots fully submerged, partially submerged, or not submerged in the water? The roots are partially submerged. Note: This level changes based on tides.
3. What is the color of the water? Dark-colored water. Note: Usually, the water is clear but it appears dark because of the dark sediment and debris on the bottom.
4. Do you think this is freshwater or saltwater? Primarily saltwater, but could also be found in brackish water. The coastal Everglades is home to a large quantity of mangroves.
5. Tag 1- **mangrove snappers**; Field note 1 sketch will vary. Use the field guide as a reference.
6. Tag 2- **prop roots**; Field note 2 sketch will vary. Use the field guide as a reference.
7. Tag 3- **propagules**; Field note 3 sketch will vary. Use the field guide as a reference.
8. Student observations will vary but check for understanding, confirming these are observations and not inferences. Students should use their senses to make observations.
9. List the different species of mangroves that are typically found in the Everglades. Three common mangroves typically found in the Everglades are red mangroves, black mangroves, and white mangroves.
10. Explain how the mangroves are critical to the Everglades ecosystem. The mangroves are critical to the Everglades because they provide habitats for wildlife and prevent land erosion caused from hurricanes and tropical storms.



Sawgrass Prairie Datasheet

Part 1: Identifying Abiotic Factors

Answers will vary depending on student locations, time, day, and weather conditions. It is important for students to understand that both abiotic and biotic factors are recorded for field study and/or field observations. Scientists will collect data from the actual site location.

Part 2: Field Observations

1. Which season is it--wet or dry? *It is the dry season. Water levels are low.*
2. What kind of rock can you see on the ground? *Limestone.*
3. Describe the water. *The water is still, shallow or low levels, dark colored water.*
4. Do you think this is freshwater or saltwater? ***Freshwater; a sawgrass prairie is considered to be a freshwater marsh.***
5. Tag #1-***solution hole***; Field note 1 sketch will vary. Use the field guide as a reference.
6. Tag #2-***swamp lily***; Field note 2 sketch will vary. Use the field guide as a reference.
7. Tag #3-***periphyton***; Field note 3 sketch will vary. Use the field guide as a reference.
8. How is the sawgrass prairie connected to the iconic nickname for the Everglades, *River of Grass*? *From the vast prairies of the sawgrass prairie habitat that have slow-flowing water for most of the year*
9. The sound heard is: *a car driving nearby*
10. Do you think that the sawgrass prairie is close to where people live and/or work? ***In the video, there showed a nearby car driving by so this helped to provide evidence that the sawgrass prairie could be close to where people live and/or work.***



Seagrass Meadow Datasheet

Part 1: Identifying Abiotic Factors

Answers will vary depending on student locations, time, day, and weather conditions. It is important for students to understand that both abiotic and biotic factors are recorded for field study and/or field observations. Scientists will collect data from the actual site location.

Part 2: Field Observations

1. Describe what the seagrass looks like. Seagrass is green, thin, it grows together in bunches.
2. What is the color of the water? Visibly clear water
3. Do you think this is freshwater or saltwater? This is saltwater because it is located in the coastal region.
4. Tag #1- **nurse shark**; Field note 1 sketch will vary. Use the field guide as a reference.
5. Tag #2- **spotted trunkfish**; Field note 2 sketch will vary. Use the field guide as a reference.
6. Tag #3-**red mangrove**; Field note 3 sketch will vary. Use the field guide as a reference.
7. List 2-3 reasons seagrass is important. Seagrass is important because it maintains water quality, prevents erosion, supplies oxygen, and creates habitat for marine organisms.
8. List 3 types of seagrasses that may be found in Florida Bay. Turtle grass, shoal grass, and manatee grass.
9. List 2 animal species who eat seagrasses. Green sea turtles and manatees.
10. Explain why you think the seagrass meadows are important to the Everglades ecosystem. Answers will vary but should include any of the following: habitat for plants and animals, provides food source, home to threatened or endangered species.