

Module 1 ~ Silent Invaders (MS/HS)

Answer Key - Native Plants Reading Activity



Name: _____ Class Period: _____ Date: _____

Directions: Read the following passage. Answer the questions below after the reading passage in complete sentences.

More than 4,200 plant species are known to live and grow in natural areas in Florida. About 3,000 are what scientists call **native plants**. They are considered **native** because they have been part of Florida's environment for a very long time—perhaps thousands of years. Native plants were not brought to Florida by humans, either on purpose or by accident. Native plants were present in Florida lands and waters before the arrival of the first Europeans, who brought with them many kinds of new, **non-native** species.

Also known as **indigenous** plants, native plants evolved along with the animals and other organisms in their habitat. Native plants perform important ecological functions in these natural systems. They provide food and shelter for wildlife; they stabilize soils in lake bottoms, coastal shorelines, fields and forests; and they are part of a rich **biodiversity** that makes Florida such a beautiful place to live and visit.

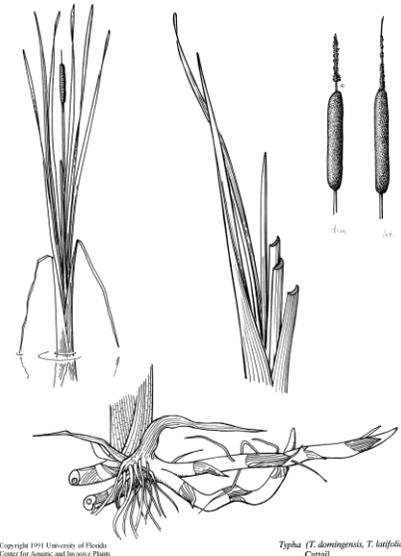
This biodiversity – a great number of species growing together in balance within a particular type of habitat – is possible because each native plant has limits put on its growth by a variety of other parts of the natural system. These limits include:

- competition with other native plants
- native diseases
- **predation** (being consumed) by insects and other animals,
- climate (includes temperature, air and wind, humidity, light, rainfall, etc.)
- natural fluctuations in water levels

A single native plant species rarely **outcompetes** other native species to “take over” an area. However, when a natural area becomes disturbed or when natural water levels are altered, then certain native plants can become “weedy.” For example, our native cat-tails (See Figure 1 above) are famous for quickly reproducing in areas that have been disturbed by construction and other human activities. Many people find cattails to be more pleasant to look at than other native water-loving plant species, and therefore they are often planted on purpose in human-made ponds.

In the Everglades, cat-tails can crowd out saw grass, another native plant that has its own important role to play in the **ecosystem**. Unlike cat-tails, saw grass does not grow well in deeper water. When water levels remain high for an extended period of time, whether due to man-made dams or drainage systems or natural processes, the cat-tails are able to **outcompete** the saw grass.

Human choices impact the number, spread, and survival of plant species, both native and non-native. These choices can be based on how attractive we think a plant is and on science-based considerations such as how hardy and tolerant of weather and soil changes the species is. It's important to note that even though native plants can cause some problems at times, they are not considered **invasive**. Scientists do not always agree on whether a plant is native or non-native. They examine the best historic and scientific information available to determine the answer.



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Typha (T. domingensis, T. latifolia)
Cattail



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Native Plants Reading Activity – answer in complete sentences.

1. What examples can you find that describe how native plants are important to our state’s ecological well-being?

Native plants are important to our state’s ecological well-being because they offer food and shelter to all sorts of wildlife. They also stabilize soils in lake bottoms, coastal shorelines, fields and forests and provide visual pleasure.

2. What do you think would be the result if native plants were not constrained by natural factors?

If native plants were not constrained by natural factors they would become too abundant in an area and not grow in balance within an ecosystem.

3. Explain in what way native plants can become problematic.

Native plants can become “weedy” when sites become disturbed from construction or a newly dug ditch or when natural water level fluctuations have been altered by man-made drainage systems or dams.

4. What is the percentage of native plants compared to non-native plants in Florida?

The percentage of native plants to non-native plants is 75% out of 100%. ($3000/4000 = \frac{3}{4} = 75\%$)

The following is a list of suggested standards that pertain to this activity. This list is provided as a reference to incorporate and expand upon as needed.

Next Generation Sunshine State Standards

9th - 12th Grades

SC.912.L.14.53: Discuss basic classification and characteristics of plants. Identify bryophytes, pteridophytes, gymnosperms, and angiosperms.

Common Core State Standards

6th Grade

Common Core Code	FL Common Core Code	Common Core Standard
RI.6.1	LAFS.6.RI.1.1	Cite textual evidence to support analysis of what text says explicitly as well as inferences drawn from text.
RI.6.4	LAFS.6.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings.
SL.6.1	LAFS.6.SL.1.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 6 topics, texts, and issues, building on others’ ideas and expressing their own clearly.



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L.6.4	LAFS.6.L.3.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 6 reading and content, choosing flexibly from a range of strategies.
L.6.6	LAFS.6.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
RST.6.4	LAFS.68.RST.2.4	Determine meaning of symbols, key terms, and other domain-specific words and phrases as used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

7th Grade

RI.7.1	LAFS.7.RI.1.1	Cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RI.7.4	LAFS.7.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of a specific word choice on meaning and tone.
L.7.4	LAFS.7.L.3.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grade 7 reading and content, choosing flexibly from a range of strategies.
L.7.6	LAFS.7.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
RST.7.4	LAFS.68.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

8th Grade

RI.8.1	LAFS.8.RI.1.1	Cite the textual evidence that most strongly supports an analysis of what the text says explicitly as well as inferences drawn from the text.
RI.8.4	LAFS.8.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
L.8.4	LAFS.8.L.3.4	Determine or clarify the meaning of unknown and multiple-meaning words or phrases based on grade 8 reading and content, choosing flexibly from a range of strategies.
L.8.6	LAFS.8.L.3.6	Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.
RST.8.4	LAFS.68.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as used in a specific scientific or technical context relevant to grades 6–8 texts and topics.

9th – 10th Grade

Common Core Code	FL Common Core Code	Common Core Standard
RI.9-10.1	LAFS.910.RI.1.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.
RI.9-10.4	LAFS.910.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze the cumulative impact of specific word choices on meaning and tone (e.g., how the language of a court opinion differs from that of a newspaper).
L.9-10.4	LAFS.910.L.3.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 9–10 reading and content, choosing flexibly from a range of strategies.
L.9-10.6	LAFS.910.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression
RST.9-10.4	LAFS.910.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9–10 texts and topics.

11th – 12th Grade

RI.11-12.1	LAFS.1112.RI.1.1	Cite strong and thorough textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text, including determining where the text leaves matters uncertain.
RI.11-12.4	LAFS.1112.RI.2.4	Determine the meaning of words and phrases as they are used in a text, including figurative, connotative, and technical meanings; analyze how an author uses and refines the meaning of a key



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		term or terms over the course of a text (e.g., how Madison defines faction in Federalist No. 10).
L.11-12.4	LAFS.1112.L.3.4	Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on grades 11–12 reading and content, choosing flexibly from a range of strategies.
L.11-12.6	LAFS.1112.L.3.6	Acquire and use accurately general academic and domain-specific words and phrases, sufficient for reading, writing, speaking, and listening at the college and career readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression.
RST.11-12.4	LAFS.1112.RST.2.4	Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 11–12 texts and topics.

Sources:

UF/IFAS Center for Aquatic and Invasive Plants: <http://plants.ifas.ufl.edu/>

Plant Management in Florida Waters: An Integrated Approach: <http://plants.ifas.ufl.edu/manage/>

Native Plants: An Overview: <https://edis.ifas.ufl.edu/ep297>



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