

Module 1 ~ Silent Invaders (MS/HS)

Answer Key – Non-Native Plants Reading Activity



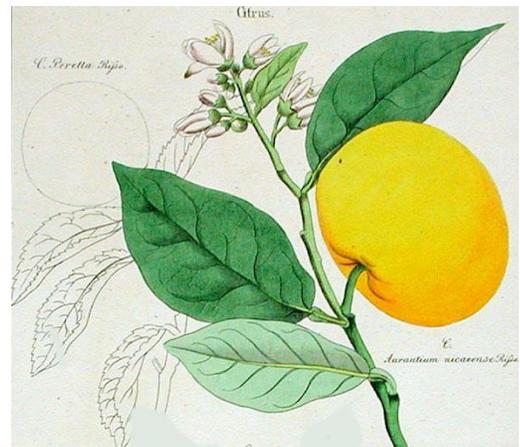
Name: _____ Class Period: _____ Date: _____

Directions: Read the passage and use the information you've learned to answer the questions below. Answer questions in complete sentences.

Of the more than 4,200 types of plants in Florida, approximately 1,400 are non-native plants. A plant that can be found growing in Florida, but is native to someplace else is a **non-native plant**. Non-native is often used to describe plants from other countries, but it can also be used to describe plants from another region within a country. In North America, a plant is considered a non-native plant if it became part of our natural landscapes after the arrival of Europeans, based on the best historical and scientific information available.

Non-native plants also are referred to as non-indigenous, alien, or exotic. It's important to remember that just because a plant is non-native or exotic it doesn't mean that it is **invasive** (damaging to the environment or human economy). A wide variety of non-native agricultural plants (tomatoes, citrus trees), horticultural plants (roses, coconut palm trees) and other economic crops are helpful to human health and our economy. These plants are well managed by the growers who plant them and sell their valuable products. As far as we know, there are no forests being threatened by tomato plants!

Citrus trees are a prime example of a non-indigenous plant species that grows well in Florida, but is not invasive. Since Ponce de Leon brought the first Asian citrus trees to Florida in the 1500s, citrus fruit growing has become a billion-dollar industry in Florida. A few citrus trees do grow wild in natural areas (outside of people's back yards and farmers' groves). However these trees do not establish in abundance when left to grow with no human intervention.



Citrus trees are non-native to Florida.

Non-native plant species are accidentally brought into Florida all the time from other parts of the state, the country and from other countries. It happens in a number of ways:

- Plants can be “escapees” from off-road vehicles, cargo on airplanes or in ballast water from ships;
- They can be mixed in with fruits, vegetables or flowers brought home in vacation or travel luggage;
- They can be ‘hitchhikers’ on boat trailers, props, in bait wells or in potted plants brought home from the store or a relative’s house.
- They can be a mistakenly-identified or unknown plants from a friend or garden center.

In the past, some plant species were purposefully brought in to try to improve our natural areas. For example, melaleuca trees (*Melaleuca quinquenervia*) were brought to Florida from Australia and their seeds were spread from airplanes over the Everglades. At the time, land managers wanted the trees to absorb water to make the Everglades more useful for humans. Unfortunately, these non-native melaleuca trees quickly became invasive and covered half a million acres of natural lands. Altering the environment in this way causes harm to plants and animals that live in the Everglades. The trees are now being removed, but it is very costly. We've learned the hard way that it is very important to be extremely careful when handling plants and animals that are from somewhere else.

Many hundreds of species have been brought both accidentally and on purpose to Florida's ecosystems in the 500+ years since European people first arrived here. The majority of these plants have not become invasive. Most simply fail to establish themselves well in Florida habitats. For reasons that are still not fully understood, some



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plant species that grow well in a new habitat can continue to grow generation after generation without ever becoming destructive. That is to say, they have little or no harmful impact on either the ecosystem or human economy. But, every non-native species that is introduced has the potential to become invasive. This is why the intentional introduction of new non-native species is now a carefully-controlled process, with study and testing in controlled laboratory conditions required before release into our Florida ecosystems.

Non-Native Plants Reading Activity (MS/HS) – answer in complete sentences.

1. What is the definition of non-native plant species in North America?

A plant is defined as non-native if it is present in a region outside its original, historical range and if it became part of our flora following the arrival of Europeans.

2. Explain how a plant can be considered non-native but not invasive.

Non-native plants that are well managed and seldom spread as weeds are not considered invasive.

3. Cite two examples of non-native but not invasive plants.

Plants such as roses, coconut palm trees, tomatoes and citrus are examples of non-native plants that are not considered invasive.

4. What examples can you find to explain the introduction of non-native plant species to Florida on a daily basis from other parts of the state, country and other continents?

Introduction of non-native plants to Florida happen in a variety of ways. For example,

- **Plants can be “escapees” from off-road vehicles, cargo on airplanes or ballast water from ships;**
- **They can be mixed in with fruits, vegetables or flowers that are brought home in vacation luggage;**
- **They can be hitchhikers on boat trailers, props, in bait wells or in potted plants brought home from the store or a relative’s house.**
- **They can be a misidentified or an unknown plant obtained through a friend or garden center.**

5. Why must we practice caution when introducing non-native plants to “improve” our natural areas?

We must practice caution when introducing non-native plants to “improve” our natural areas to make sure they will not cause economic or environmental harm.

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.

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.
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



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		reading and content, choosing flexibly from a range of strategies.
RST.6-8.4	LAFS.68.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 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.
RST.6-8.4	LAFS.68.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 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.
RST.6-8.4	LAFS.68.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 6–8 texts and topics.

9th – 10th Grade

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.
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.11-12.4	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 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.
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.

