

# Module 3 ~ Why Manage Invasive Plants?

## “Why Manage Invasive Plants?” Presentation (4<sup>th</sup> – 12<sup>th</sup>)



### Sunshine State Standards

**Note:** Standards listed in *italics* are touched on briefly and can be more fully developed by the teacher.

#### 4<sup>th</sup> Grade

- LA.4.1.5.1: TSW demonstrate the ability to read grade level text.
- LA.4.1.6.1: TSW use vocabulary that is introduced and taught directly.
- LA.4.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.
- LA.4.2.2.1: TSW locate, explain, and use information from text features (e.g., table of contents, glossary, headings, charts, graphs, diagrams, illustrations).
- LA.4.2.2.2: TSW use information from the text to answer questions related to explicitly stated main ideas or relevant details.
- SC.4.E.6.6: TSW identify resources available in Florida (water, phosphate, oil, limestone, silicon, wind, and solar energy).*
- SC.4.L.16.1: TSW identify processes of sexual reproduction in flowering plants, including pollination, fertilization (seed production), seed dispersal, and germination.*
- SC.4.L.16.4: TSW compare and contrast the major stages in the life cycles of Florida plants and animals, such as those that undergo incomplete and complete metamorphosis, and flowering and non-flowering seed-bearing plants.*
- SC.4.N.1.4: TSW recognize ways plants and animals, including humans, can impact the environment.
- SS.4.A.4.1: TSW explain the effects of technological advances on Florida.*
- SS.4.C.2.1: TSW discuss public issues in Florida that impact the daily lives of its citizens.
- SS.4.C.2.2: TSW identify ways citizens work together to influence government and help solve community and state problems.*
- SS.4.C.2.3: TSW explain the importance of public service, voting, and volunteerism.*
- SS.4.E.1.2: TSW explain Florida's role in the national and international economy and conditions that attract businesses to the state.*
- SS.4.G.1.1: TSW identify physical features of Florida.*
- SS.4.G.1.4: TSW interpret political and physical maps using map elements (title, compass rose, cardinal directions, intermediate directions, symbols, legend, scale, longitude, latitude).

#### 5<sup>th</sup> Grade

- LA.5.1.5.1: TSW demonstrate the ability to read grade level text.
- LA.5.1.6.1: TSW use vocabulary that is introduced and taught directly.
- LA.5.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.
- LA.5.2.2.1: TSW locate, explain, and use information from text features (e.g., table of contents, glossary, index, transition words/phrases, headings, subheadings, charts, graphs, illustrations).
- LA.5.2.2.2: TSW use information from the text to answer questions related to explicitly stated main ideas or relevant details.
- SC.5.L.17.1: TSW compare and contrast adaptations displayed by animals and plants that enable them to survive in different environments such as life cycles variations, animal behaviors and physical characteristics.*
- SS.5.C.2.5: TSW identify ways good citizens go beyond basic civic and political responsibilities to improve government and society.*
- SS.5.G.4.1: TSW use geographic knowledge and skills when discussing current events.*

#### 6<sup>th</sup> Grade

- LA.6.1.6.1: TSW use vocabulary that is introduced and taught directly.
- LA.6.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.
- LA.6.2.2.2: TSW use information from the text to answer questions related to the main idea or relevant details, maintaining chronological or logical order.
- SC.6.E.6.2: TSW recognize that there are a variety of different landforms on Earth's surface such as coastlines, dunes, rivers, mountains, glaciers, deltas, and lakes and relate these landforms as they apply to Florida.
- SS.6.E.1.1: TSW identify the factors (new resources, increased productivity, education, technology, slave economy, territorial expansion) that increase economic growth.*
- SS.6.G.1.4: TSW utilize tools geographers use to study the world.*



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#### 7<sup>th</sup> Grade

- LA.7.1.6.1: TSW use new vocabulary that is introduced and taught directly.  
 LA.7.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.  
 LA.7.2.2.2: TSW use information from the text to state the main idea and/or provide relevant details.  
 SC.7.E.6.6: TSW identify the impact that humans have had on Earth, such as deforestation, urbanization, desertification, erosion, air and water quality, changing the flow of water.  
 SC.7.L.15.3: TSW explore the scientific theory of evolution by relating how the inability of a species to adapt within a changing environment may contribute to the extinction of that species.  
 SC.7.L.17.2: TSW compare and contrast the relationships among organisms such as mutualism, predation, parasitism, competition, and commensalism.  
 SC.7.L.17.3: TSW describe and investigate various limiting factors in the local ecosystem and their impact on native populations, including food, shelter, water, space, disease, parasitism, predation, and nesting sites.  
 SS.7.C.2.13: TSW examine multiple perspectives on public and current issues.  
 SS.7.G.5.1: TSW use a choropleth or other map to geographically represent current information about issues of conservation or ecology in the local community.

#### 8<sup>th</sup> Grade

- LA.8.1.6.1: TSW use new vocabulary that is introduced and taught directly.  
 LA.8.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.  
 LA.8.2.2.2: TSW synthesize and use information from the text to state the main idea or provide  
*SC.8.N.4.1: TSW explain that science is one of the processes that can be used to inform decision making at the community, state, national, and international levels.*  
*SC.8.N.4.2: TSW explain how political, social, and economic concerns can affect science, and vice versa.*  
 SS.8.A.1.2: TSW analyze charts, graphs, maps, photographs and timelines; analyze political cartoons; determine cause and effect.  
 SS.8.G.5.1: TSW describe human dependence on the physical environment and natural resources to satisfy basic needs in local environments in the United States.  
 SS.8.G.5.2: TSW describe the impact of human modifications on the physical environment and ecosystems of the United States throughout history.

#### 9<sup>th</sup> - 12<sup>th</sup> Grades

- LA.910.1.6.1: TSW use new vocabulary that is introduced and taught directly.  
 LA.1112.1.6.1: TSW use new vocabulary that is introduced and taught directly.  
 LA.910.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.  
 LA.1112.1.6.2: TSW listen to, read, and discuss familiar and conceptually challenging text.  
 LA.910.2.2.1: TSW analyze and evaluate information from text features (e.g., transitional devices, table of contents, glossary, index, bold or italicized text, headings, charts and graphs, illustrations, subheadings).  
 LA.1112.2.2.1: TSW analyze and evaluate information from text features (e.g., transitional devices, table of contents, glossary, index, bold or italicized text, headings, charts and graphs, illustrations, subheadings)  
 LA.910.2.2.2: TSW use information from the text to answer questions or to state the main idea or provide relevant details.  
 LA.1112.2.2.2: TSW use information from the text to answer questions or to state the main idea or provide relevant details.  
*SC.912.L.14.53: TSW discuss basic classification and characteristics of plants. Identify bryophytes, pteridophytes, gymnosperms, and angiosperms.*  
 SC.912.L.17.5: TSW analyze how population size is determined by births, deaths, immigration, emigration, and limiting factors (biotic and abiotic) that determine carrying capacity.  
 SC.912.L.17.6: TSW compare and contrast the relationships among organisms, including predation, parasitism, competition, commensalism, and mutualism.  
 SC.912.L.17.8: TSW recognize the consequences of the losses of biodiversity due to catastrophic events, climate changes, human activity, and the introduction of invasive, non-native species.



Florida Invasive Plant Education Initiative • <http://plants.ifas.ufl.edu/education>

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*SC.912.L.17.13: TSW discuss the need for adequate monitoring of environmental parameters when making policy decisions.*

*SC.912.L.17.14: TSW assess the need for adequate waste management strategies.*

SC.912.L.17.15: TSW discuss the effects of technology on environmental quality.

SC.912.L.17.16: TSW discuss the large-scale environmental impacts resulting from human activity, including waste spills, oil spills, runoff, greenhouse gases, ozone depletion, and surface and groundwater pollution.

*SC.912.L.17.17: TSW assess the effectiveness of innovative methods of protecting the environment.*

*SC.912.L.17.20: TSW predict the impact of individuals on environmental systems and examine how human lifestyles affect sustainability.*

SC.912.N.4.1: TSW explain how scientific knowledge and reasoning provide an empirically-based perspective to inform society's decision making.

SS.912.A.1.4: TSW analyze how images, symbols, objects, cartoons, graphs, charts, maps, and artwork may be used to interpret the significance of time periods and events from the past.

SS.912.C.2.10: TSW monitor current public issues in Florida.

*SS.912.G.3.1: TSW use geographic terms to locate and describe major ecosystems of Earth.*

SS.912.G.5.3: TSW analyze case studies of the effects of human use of technology on the environment of places.

SS.912.G.5.4: TSW analyze case studies of how humans impact the diversity and productivity of ecosystems.

SS.912.G.5.5: TSW use geographic terms and tools to analyze case studies of policies and programs for resource use and management.

*SS.912.G.6.1: TSW use appropriate maps and other graphic representations to analyze geographic problems and changes over time.*

MA.912.A.2.2: TSW interpret a graph representing a real-world situation.



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