

# How Well Do You Know Your Neighbors?

## Sneak Peek

Students will be introduced to the concepts and issues surrounding Invasive Species. They will be able to identify different vectors and pathways that allow invaders to expand. They will also learn about invaders in different areas of the world and think about ways to prevent the expansion of invaders in the future. This activity incorporates mapping, environmental investigations and research methods.

Aligned with the following  
Sunshine State Standards and  
FCAT Benchmarks for grades  
6-8:

SC.D.1.3.3 CS      SC.F.2.3.3 CS  
SC.D.1.3.4 AA      SC.G.1.3.2 CS  
SC.F.1.3.1 AA      SC.G.1.3.4 AA  
SC.F.1.3.7 CS  
AA = annually assessed  
CS = content sampled

## Objectives:

Students will...

- Identify vectors and pathways involved in the transport of non-native species.
- Collect information on specific Florida invasive species.
- Gather information about invaders throughout the world.
- Compare invaders in similar climates.
- Think critically about how to prevent the influx of more invaders.

## Materials:

- Internet access, books or articles on invasive species.
- Copies of Florida Aquarium invasive species fact sheets.
- World map



## *How did they get here?*

**Non-native** species arrive in Florida in several different ways. The **pathway** is the geographic path followed. The **vector** is the means, or transport mechanism, by which a species is moved from one location to another. Some species are deliberately introduced by humans. The plant Kudzu was introduced to control soil erosion. Non-native ornamental plants, such as Brazilian Pepper, are used in landscaping around homes and businesses. Unusual pets, including aquatic species, have been released by owners into Florida's wild lands and waterways.

Non-native species also arrive in Florida as the unintentional consequence of human activities. *Ballast* water can carry organisms around the world. Importing fruits and vegetables can introduce plant pests to a new location. Even the international movement of people can carry diseases or viruses wherever they may travel! The success of an *invader* depends on many environmental factors including temperature, rain and wind. Another important influence on the success of an invader is how quickly it can reproduce. The faster the better for the invader! An invader that thrives often has a high reproductive rate.

The intentional and unintentional pathways described above are enhanced or created by human activity. Humans are active throughout the world, so that probably means invaders are everywhere as well.

Please visit [www.invasivespecies.gov](http://www.invasivespecies.gov) for more information on pathways and vectors.

### **Procedure:**

1. Have students work together in groups of three or four. Each group should be asked to research three to four Florida invasive species. Find out how they arrived in Florida, the climate they prefer, their reproductive rate, etc.
2. Warm up! Have groups of students go around the school trying to identify different invasive species using The Florida Aquarium invasive species fact sheets and the research they have done.
3. Map the locations around the school in which you found invaders.
4. In the original groups, have students research areas with climates similar to Florida. Do they also have invasive species? What kind of invasive species do they have? How do you think they got there?
5. Have students hypothesize how invaders got to other locations. Discuss ways to prevent the spread of invaders from places with similar climates to Florida.

## *Rapping It Up!*

1. List three different vectors for invasive species.
2. Name three Florida invaders. Name three invaders outside of Florida, if you found some during your research.
3. Which of the invaders that you researched traveled the farthest to get to Florida?
4. What do you think can be done to control the spread and introduction of more invasive species?
5. Name three reasons why invasive species are harmful to native species.

## **Glossary:**

**Ballast** – Water or other heavy material placed in the hold of a ship for stability.

**Invader/Invasive species** – A plant or animal that is not native and causes harm, including disrupting natural ecosystems.

**Native species** – A plant or animal species that originated in a certain place. A species occurring in its natural range. Species that were present in Florida at the time the first Spanish settlers arrived.

**Non-native species** – A species introduced to a region intentionally or accidentally.

**Pathway** – The geographic path a species follows on its way to an introduction.

**Vector** – The means, or transport mechanism, by which species are transported from one location to another.