

# Filling Up Florida

## Instructional Plan Overview

### Day 1

Materials: Diagnostic test (from files), Life size map of Florida (see procedure #1), and lecture notes from the files

Procedures:

1. Do the following before class:

Draw out a life-sized outline of Florida on banner paper. It can be anywhere from poster-sized to five or six feet high, depending on classroom space and material availability. Decorate it with an eye-catching title line, outline it in glitter, etc. Hang it somewhere in the room on the first day of the activity to stimulate curiosity. Check out the website at <http://geography.about.com/library/blank/blxusfl.htm>

2. Administer the diagnostic per the teacher directions. Then, as a class, brainstorm a list of all the positive and negative factors (developers, tourists, endangered species, plentiful water supply) that contribute to the growth or maintenance of a population.

3. Following the diagnostic assessment, use the Lecture Notes in the associated file under Additional Information, lead a lecture/discussion with students taking notes on the following topics:

- Consequences of human action on the Earth's systems
- Definitions of biotic and abiotic environmental factors
- Ecosystems (definition and examples)
- Equilibrium (definition and example)

Assessment: Collect students' notes and formatively assess to make sure that they have written down sufficient information from the lecture notes/discussion and brainstorming to complete the activities for the next 5 days. Note students whose notes are sketchy or incorrect in order to offer feedback tomorrow. Place a star on notes that are well written and have sufficient information. Refer to the lecture notes found in the file as a guide.

## **Lesson Plan for Day Two**

Materials: Research materials including books, Internet, list of research topics (optional), Cooperative Worker Rubric (see attached files)

### Procedures:

1. Before beginning today's research, quickly review the Cooperative Workers Rubric with students so that they understand their group work will be assessed throughout their project. In small groups of 2-3, either at the library or on computers, have students research the factors controlling populations. Considerations vital to Florida would be things such as tourism, 1000 new people moving to Florida each day, amount of available resources (especially water,) resource management, conservation, fire suppression, endangered species, etc. You may want to assign a particular research topic to each group, depending on the students' prior knowledge.

Assessment: Formatively assess and circulate as students work. Offer suggestions, ideas, praise and corrections. Students should take notes or print out information and highlight important parts that deal with what they are researching. Make sure that all members of the group are contributing and staying on task.

### **Lesson Plan for Day Three**

**Materials:** Blank maps of Florida (<http://www.maps.of-florida.com/florida.html>) Map can be printed and outline traced

#### **Procedures:**

1. When research is completed, each group gets their own copy of a blank map of Florida. Students transfer their most interesting research findings onto their maps. This can be in the form of written information, drawings, or both. Some examples may include indicating potential water sources, population data by area, and areas important for wildlife.
  
2. Circulate and help the students decide where their group's strengths lie in terms of research. Each group should have a particular focus on their individual map.

**Assessment:** Formatively assess and circulate as students work. Offer feedback, suggestions, and guidance. Assess the maps to see that students are recording the information correctly and are accurately interpreting their research notes. Student groups' maps should be collected at the end of the period and quickly assessed to see if there are any areas that need to be mentioned prior to beginning tomorrow's activity.

## **Lesson Plan for Day Four:**

Materials: Life size map of Florida, cards with simulation roles

### Procedures:

1. Bring the class back together and begin the fun part- building a class-sized Florida! Use the life-sized outline of Florida drawn on banner paper, lay it on the floor, or put it up on the wall somewhere, and either have the students come up and add their information to the map, or designate a student from each group to add to the map, or have the students tell you what they want to contribute to the map. For example, a group might want to focus on penciling in habitats, important waterways, population data, etc., whatever their determined strength was from their research and individual maps. Another group might want to consider borders with other states and/or islands off the coast and how these factors might play into population. Each group presentation should be from 5-10 minutes.
2. When Florida is done, students will draw roles for the role play/simulation.
3. You will need two travel agents to recruit tourists, many tourists, developers, potential land buyers, government employees (South Florida Water Management District Employees) plant and animal species (endangered or otherwise), bodies of water. You may even choose to have students be specific organisms (lobbying for space), such as osprey, panthers, or pines. The roles chosen will differ each time you do this activity, based on the students' research interests.
4. After roles are picked, make this homework assignment: Students should choose and bring an item to class that would best represent their roles (a pine cone representing a pine stand, a bowl of water to represent a lake, a photo of an animal glued onto cardboard, a toy tractor representing development).

Assessment: Formatively assess students as they are putting the information on the map. You will need to monitor this closely and offer suggestions, praise and direction since the role-play activity depends on what the map says. Make sure that all members of each group are participating.

## Lesson Plan for Day Five:

Materials: Life size map of Florida, role-playing cards (see procedure #3 from yesterday. Day 4)

### Procedures:

1. Let the population shifting begin! Students must wear their role nametags and begin inhabiting Florida. Wildlife gets to go first. Allow wildlife 5 minutes to choose their positions, either on the actual map itself or in the classroom, depending on how big and open the banner of Florida is. Lakes should be placed appropriately. Osprey can build and place their nests, and forests should form. Once all of the natural communities are placed on the map, have a brief discussion about unspoiled Florida, Florida in the 1800's. Provide photos and/or maps; students can sit around the map. Create an atmosphere of the state before the people. <http://www.luddist.com/map.html>
2. Try to keep the map in a section of the room where it can stay set up or take it apart and set it back up at the beginning of the next class if space is limited.
3. Next is Florida growth day. Travel agents meet with tourists to try and sell vacation packages to Florida. Real estate agents and developers sell land at the expense of the wildlife. If three people come to build or vacation in an animal's habitat, that animal must relocate to another part of the map or die (discuss relocating, adapting, or dying). When a species can no longer find a place on the map, it must leave and become extinct.
4. Simulation and/or discussion should last no longer than a class period and should be guided by the teacher based on individual objectives. Older students should be encouraged to propose solutions for sustainability.

Assessment: Formatively assess students as they play their roles. Offer feedback and guidance as the role-play progresses. Periodically stop and ask students questions such as: What is happening to the human population? What has happened to the resources such as water? Have any non-renewable resources been totally consumed? Etc. Questions can be guided by the posttest, which is the summative #1 in the attached files.

## **Lesson Plan for Day Six:**

Materials: Summative Assessment #1, Group Work Rubric (Both can be found in the attached files.)

### Procedures:

1. Come back together as a class and conduct a review of terms and concepts (use Teacher Lecture Notes in the attached files if you would like) and have students contribute ideas about what they learned about these concepts during the research and simulation. Before beginning this discussion, review the questions on the posttest to make sure that all needed information is reviewed and discussed.

### Assessment:

1. From the observations and daily formative assessments assess each student's participation in the project. This should be a formative assessment of their ability to work as a Cooperative Worker.
2. Administer Posttest Summative. (See attached files) This is a summative assessment.