

# The Everglades are on Fuego

**Which Habitat Video:** Pine Rocklands, Sawgrass Prairies, Coastal Prairies, Hardwood Hammock,

**Subject:** Science,

**Duration:** 1 hour

**Location:** Classroom

**Grades:** 3rd to 9th

**Next Generation Sunshine State Standards:** SC.D2.2, S.GC.G.1.2.,SC.G2.2,SS.B.2.2

**Key Vocabulary:** pine rockland, prairies, coastal prairies, hardwood hammock, subtropical, sawgrass, mosaic, accumulation, inaccessibility, encroachment, ecosystem, exotic, moat-like depression, erodes, deterrent

## Materials

- "Fire in Everglades Ecosystem-Everglades National Park" copy for each student
- Balloons or cowbells
- Thumbtack
- Aluminum-foil pie plate
- Ballpoint pen
- Wool sock
- Styrofoam block

## Objectives

The students will be able to distinguish the difference between the four different Everglades ecosystems listed in the key vocabulary- Pine Rocklands, Sawgrass Prairies, Coastal Prairies, Hardwood Hammocks. The students will be able to describe the importance of fire and lightning to the Everglades.

## Method

Students will play the balloon game to become familiar with the different ecosystems and vocabulary words in the lesson. Students will read out loud and discuss the article "[Fire in Everglades Ecosystem](#)" provided by the National Park Service web-site. Students will perform the experiment "Homemade Lightning".

## Background

Fire plays an important role in maintaining a healthy balance in many of the Everglades ecosystems. Lightning is a key factor in starting fires in the Everglades.

## Suggested Procedure

1. Present Everglades Video from the "Mountains and Valleys" series to students  
<http://www.nps.gov/ever/photosmultimedia/mountainsandvalleys.htm>
2. Review the Everglades ecosystems and vocabulary words with the students.
3. Place students in rows. Each row of students = a team. Place an empty chair in front of each row with a balloon on it. The teacher reads a definition or question about the material previously reviewed in step #1.
4. The first member of each team gets the opportunity to answer the first question. If the student thinks they know the correct answer they quickly approach the chair with the balloon. The first student that blows the balloon up & pops it by sitting on it gets to answer the question. I've used cowbells instead of balloons. The balloons are like the buzzer on a game show. The Game is taken from the book "Activities that Teach" by Tom Jackson.
5. Read and discuss the article "Fire in Everglades Ecosystems" with the class. Highlight the

importance of lightning in starting the fires. Explain why fires are important to the health of each ecosystem listed above.

6. Have students perform the following “Homemade lightning” experiment:

**Method:**

- a) Push a thumbtack from the back of the pie plate through the middle of the plate.
- b) Place the non-writing end of the pen into the tack protruding through the plate.
- c) Rapidly rub the wool sock with the Styrofoam block.
- d) Pick up the pie plate by the pen. Do not touch the plate, only the pen.
- e) Place the plate on the Styrofoam block.
- f) Turn out the classroom lights. Bring your finger close to the plate.
- g) You should feel, see, & hear a spark. You have made lightning!

This experiment is taken from “Totally Irresponsible Science” by Sean Connolly

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**Evaluation**

Discuss how fire can positively impact the ecosystems of the Everglades. What important role does lightning play in the relationship between fire & the ecosystems in the Everglades?

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**Extension**

Have the students research what a prescribed burn is and why it is used in many of our national & state parks. Research what causes lightning.

<http://www.nps.gov/ever/photosmultimedia/gladesglimpse.htm>

The article “Fire in Everglades Ecosystem-Everglades National Park” can be found at:

<http://www.nps.gov/ever/parkmgmt/inevergladeseecosystems.htm>