Lesson 12-Ecosystems (Environmental Changes)

KEY TERMS

ecosystem

endangered

succession

OBJECTIVES

⇒ **Explain the effects natural disasters have on an ecosystem**

⇒ **Identify animals that are endangered in The Bahamas**

An **ecosystem** is a place where living and non-living things interact and depend on each other. In ecosystems there is usually stability. However, changes occur constantly. These changes may be sudden or gradual. Storms, such as hurricanes and tornados, as well as forest fires can cause rapid changes to the environment. After a change in the ecosystem, the environment reacts by permitting new additions of plant and animal life. These new additions are called **succession**.

Here are some factors that affect an ecosystem:

- Fires speed up the process of succession. Forest fires occur on most of the islands of The Bahamas during the dry season. Some forest fires burn dead leaves and branches on the forest floor releasing nutrients into the soil. After a fire, grasses sprout and dormant seeds germinate in the rich soil. The bark of pine trees are resistant to fires which enable them to survive forest fires.

- Small changes in climate, in soil conditions or in plant or animal population can change an ecosystem. This change is gradual over thousands of years.

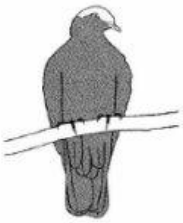
- Pollution also changes the ecosystem.

- Mass land clearing, cutting down of hills, filling in of mangroves and digging canals and marinas also affect the ecosystems.

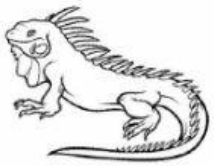
- Human activity contributes greatly to the changes in the environment.

ENDANGERED ANIMALS

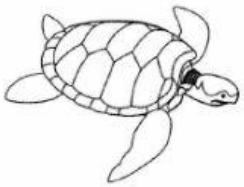
Many animals in The Bahamas are at risk of becoming extinct. Animals such as the *White Crowned Pigeon, the iguana, the Green Sea Turtle* and *the Bahama Parrot* are endangered. Laws are being enforced to prevent the capture of these animals. By obeying these laws, the number of these species can increase to avoid extinction.



White Crowned Pigeon



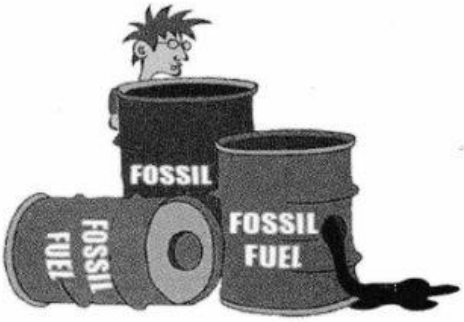
Iguana



Green Sea Turtle

Bahama Parrot

Activities such as adding chemical fertilizers to soil, building new roads, homes, schools, shopping centers and burning fossil fuels lead to the endangerment and extinction of organisms.



Ecosystems-Assessment

Name:_____ Date: _____

Read and answer the following questions correctly.

1. Define the term **ecosystem**. [1]

_____

_____

_____

2. Name **TWO** natural disasters that can cause changes to an ecosystem. [2]

a. _____

b. _____

3. Explain **ONE** way human beings have caused changes to an ecosystem. [1]

_____

_____

_____

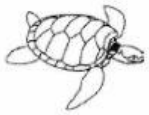
4. Complete the chart below to show the adaptation pine trees have that allows them to survive a forest fire? [1]

ADAPTATION

Pine tree	→	

5(a) Which **TWO** of the following are endangered animals in The Bahamas? Shade in the LETTERS next to the correct answers. [2]

(A) crab



(B) Green Sea Turtle

(C) jellyfish

(D) White Crowned Pigeon

5(b) Explain what measure was implemented to avoid the extinction of the endangered animals mentioned in **5(a)**. [1]

_____

_____

6. **The number of endangered animals needs to increase to avoid extinction**. What does the word ***extinction*** mean? [1]

_____

_____

_____

7. **Succession is important in an ecosystem**. Explain why. [1]

_____

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TOTAL MARKS-10