

# Ecology Webquest

Ecologists: (YOUR NAME)

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## Part I: Ecosystems and Nutrient Cycling

Your first assignment is to put together a simple food chain and answer the questions below.

### I. FOOD CHAINS

(1) Go to [http://www.ecokids.ca/pub/eco\\_info/topics/frogs/chain\\_reaction/index.cfm](http://www.ecokids.ca/pub/eco_info/topics/frogs/chain_reaction/index.cfm)

and click on "play the game" to begin.

Answer the questions below:

1. A person is called a \_\_\_\_\_ because they eat meat & vegetables.
2. Food gives people and animals \_\_\_\_\_.
3. \_\_\_\_\_ are animals that only eat meat.
4. \_\_\_\_\_ are animals that only eat plants.

(2) Choose the Forest Food Chain.

1. What animals were in your food chain? Place them in the correct order.

2. What 5 things happen if you take the frog out of the food chain?

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

## II. FOOD WEBS

- (1) Go to [http://www.harcourtschool.com/activity/food/food\\_menu.html](http://www.harcourtschool.com/activity/food/food_menu.html) and choose one of the three food webs. Put the food web together!

<b>Consumers</b> - are living things that need producers to be their food (animals and people)
<b>Producers</b> - living things which take the non living matter from the environment (plants)
<b>Decomposers</b> - living things which feed off of dead plants and animals (bacteria, fungi)

- (2) Using the information in the table above answer the following questions about your food chain:

Name a **consumer** in your food web \_\_\_\_\_

Name a **producer** in your food web \_\_\_\_\_

Name a **decomposer** in your food web \_\_\_\_\_

## III. NUTRIENT CYCLING

### A. Carbon Cycle

- (1) Go to [http://epa.gov/climatechange/kids/carbon\\_cycle\\_version2.html](http://epa.gov/climatechange/kids/carbon_cycle_version2.html) Click and complete scene 1.

- (2) Name 2 places on the earth we find carbon:

1. \_\_\_\_\_ 2. \_\_\_\_\_

- (3) Go to [http://www.windows.ucar.edu/tour/link=/earth/Water/co2\\_cycle.html](http://www.windows.ucar.edu/tour/link=/earth/Water/co2_cycle.html), read about the carbon cycle and fill in the blanks below:

Plants pull carbon (in the form of carbon dioxide) from the atmosphere to make food, through a process called \_\_\_\_\_.

Through food chains animals get \_\_\_\_\_ from the plants and other animals they eat.

When plants and animals die and \_\_\_\_\_, carbon goes back into the ground.

Some carbon is buried deep in the ground and forms \_\_\_\_\_.

When humans burn fossil fuels, \_\_\_\_\_ is released back into the atmosphere.

When humans and animals exhale, they release carbon back into the air by a process called \_\_\_\_\_.

## B. Nitrogen Cycle

Go to the website

[http://www.windows.ucar.edu/tour/link=/earth/Life/nitrogen\\_cycle.html&edu=mid](http://www.windows.ucar.edu/tour/link=/earth/Life/nitrogen_cycle.html&edu=mid) and answer the questions below:

1. What are 2 ways nitrogen becomes useable to plants, humans and animals:

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2. How do herbivores obtain the nitrogen they need?

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3. How is nitrogen returned to the atmosphere?

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4. What are two ways humans impact the nitrogen cycle:

1. \_\_\_\_\_

2. \_\_\_\_\_

## IV. POPULATION

Go to [http://www.geography4kids.com/files/land\\_population.html](http://www.geography4kids.com/files/land_population.html) and answer the following questions:

1. What is population

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2. Two things that increase a population
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  
3. Two things that decrease a population:
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_

**Part II: Impact of Human Activity on Ecosystems**

Choose and read about one of many impacts that humans have on ecosystems from the list below:

<b>Impact of Human Activity on Ecosystems</b>	
<a href="#"><u>Deforestation</u></a>	<a href="#"><u>Human Soil Erosion</u></a>
<a href="#"><u>Extinction of Species</u></a>	<a href="#"><u>Fires</u></a>
<a href="#"><u>Pollution</u></a>	<a href="#"><u>Greenhouse Effect</u></a>

List two facts you learned about the impact you chose:

1. \_\_\_\_\_
2. \_\_\_\_\_

**Part III: Biomes Around the World**

- (1) Go to <http://mbgnet.mobot.org/> and answer the following questions.
- (2) What are the 6 Biomes of the World? \_\_\_\_\_, \_\_\_\_\_,  
 \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_
- (3) What are the 3 Freshwater Ecosystems and the 3 Marine Ecosystems?
  - a. Freshwater =
  - b. Marine =
- (4) Click on one of the six biomes. Choose one topic from the left column.

**Write 3 sentences describing the information in this topic. Do not copy word for word!**

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_