WLHS/Biology/Oppelt Name _____

Ecology Webquest

Directions: You will be visiting a variety of websites in order to review the various factors that make up an ecosystem (e.g. food webs, trophic levels, etc…).

Website #1 Populations: Go to the following website:
http://www.geography4kids.com/files/land_population.html

1. What is population? _____
.

2. Two things that increase a population

3. Two things that decrease a population

4. Humans and dogs live together, are they part of the same population? Why or why not?

5. Fill in the table below on Limiting Factors:

Type of Limiting factor	Description

Website #2 Ecosystems: Go to the following website: https://sciencing.com/damages-ecosystem-8355512.html

1. What is an ecosystem?

2. Fill in the table below on factors that affect ecosystems

Factor Affecting Ecosystem	Description

Website #3: http://www.sheppardsoftware.com/content/animals/kidscorner/foodchain/foodchain.htm

1. Describe where animals and plants get their energy.

2. What are food chains and how are the set up?

Next "Click to learn about bigger food chains!" to answer the following questions.

3. What do the links (arrows) in a food chain represent?

4. Explain how the last food chain represents a full circle of life.

Click on the tabs at the bottom of the website and fill in the blanks (herbivore, omnivore, decomposer, etc)

Ecological Term	Definition/What Do They Eat	Example
Herbivore		
Omnivore		
Carnivore		
Decomposer		

Click on "Food Chain Game" in upper left hand corner
5. Play the game, then draw and label food chain #7 (food chain with human) in the space below:

Website #4 Food Webs http://www.harcourtschool.com/activity/food/food_menu.html

Choose a food Web _____
1. After creating your food web, draw your food web in the space below

2 .Name a consumer in your food web _____

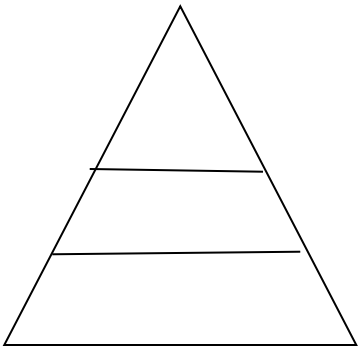
3. Name a producer in your food web _____

4. Name a decomposer(if there is one) in your food web _____

Website #5 Energy in an Ecosystem
http://www.harcourtschool.com/activity/science_up_close/314/deploy/interface.html

1. What do energy pyramids show?

2. In the diagram to the right, identify which level are the **carnivores, producers, and omnivores**.



3. Why are there less organisms as you move up the energy pyramid?

Website #6 10% Rule and Energy Pyramids http://www.shmoop.com/ecology/ecosystem-energy-flow.html

1. Nearly all of the _____ that drives ecosystems ultimately comes from _____. _____, which is an _____ factor, by the way, enters the ecosystem through the process of **photosynthesis**_____.

2. Why are plants called producers?

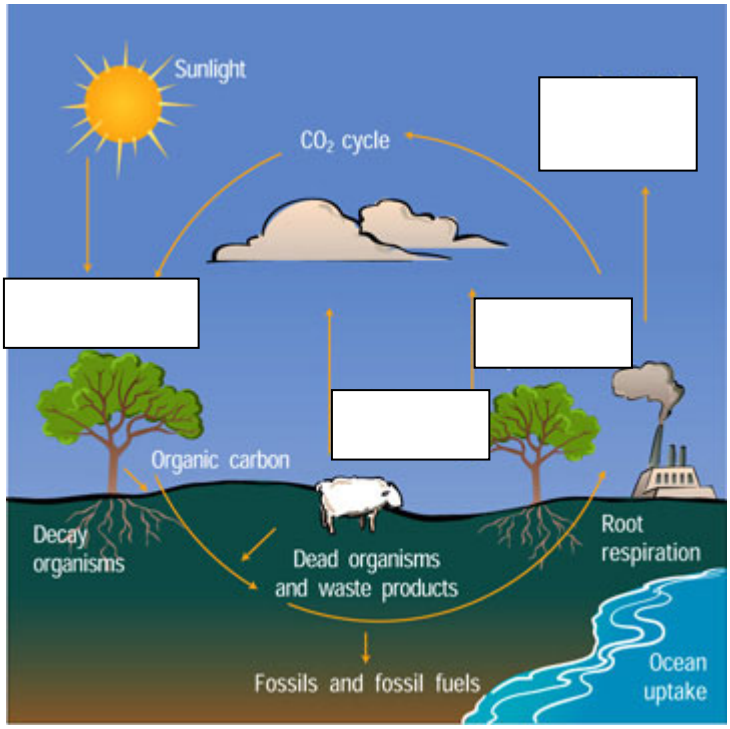
3. What are other producers besides plants?

4. How much energy to consumers obtain when they eat? What happened to the rest?

Website #7 Carbon Cycle **http://www.windows2universe.org/earth/Water/co2_cycle.html**

1. Using the diagram to the right, identify the following:

Photosynthesis, Plant respiration, Animal respiration, Emissions (combustion)



2. Name 2 places on the earth we find carbon

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

4. When plants and animals die and _____, carbon goes back into the ground.

5. Some carbon is buried deep in the ground and forms _____.

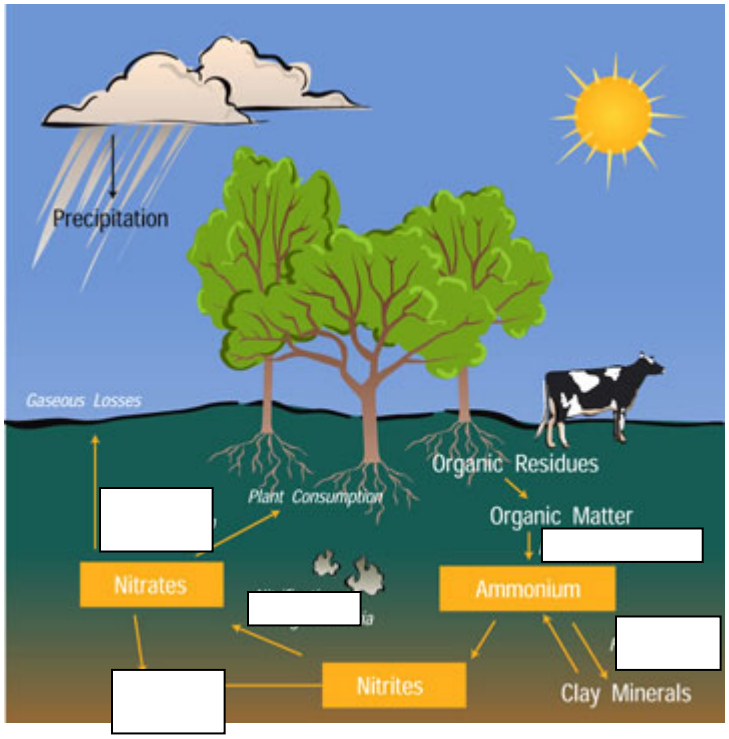
6. When humans burn fossil fuels, _____ is released back into the atmosphere.

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

Website #8 Nitrogen Cycle http://www.windows2universe.org/earth/Life/nitrogen_cycle.html

1. Using the diagram below, identify the following phases:

Denitrification, Mineralization, Fixation, Leaching, Nitrification



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

3. How do herbivores obtain the nitrogen they need?

4. How is nitrogen returned to the atmosphere?

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

Website #9 Water Cycle http://www.windows2universe.org/earth/Water/water_cycle.html

1. Using the diagram of the water cycle, identify the following phases of the water cycle: **Condensation, Evaporation, Inflitration, Precipitation, Runoff, Transpiration**