**Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Unit 8: The Impact of Humans on Ecology:**

**\* Links are on green “hot” buttons on my weebly at the bottom of the unit page.**

**A. Populations**

1. Watch the animation about **pesticides** at: <https://www.youtube.com/watch?v=TZk6vcmLcKw>

a. Describe how pesticides, like DDT concentrate as they move through the food chain.

b. What is the term for this concentration on pesticides?

2. Most scientists agree that overall, the human population is over Earth's carrying capacity. Brainstorm a list of at least 3 ways human overpopulation will negatively impact Earth's ecosystems.
 a.
 b.
 c.

**B. Cycles Imbalance Issues**

1. Watch the following video at : <https://www.youtube.com/watch?v=VYMjSule0Bw>
2. Explain the **greenhouse effect**.
3. Is the greenhouse effect good, bad or both? Explain your answer.
4. Watch the following video at: <https://www.youtube.com/watch?v=u9ztDSbSrFI>
5. Explain the problem of the destruction of/hole in the **ozone layer**.
6. When we study Ecology, you often hear the word "balance" used. Cycles are great studies in balance, since they maintain the flow of materials like Carbon and Nitrogen through the ecosystem, keeping them from building up in any one place. Watch the video clip on each of the following ecological problems. Then define the problem, describe which cycle is involved, how the imbalance was created, and what the impact of the imbalance is:
 a. **global warming**….<https://www.youtube.com/watch?v=oJAbATJCugs>
7. Definition:
8. Which cycle is involved?
9. How was the imbalance created?
10. What it the impact of the imbalance?

b. **eutrophication** <https://www.youtube.com/watch?v=6LAT1gLMPu4>

1. Definition:
2. Which cycle is involved?
3. How was the imbalance created?
4. What it the impact of the imbalance?

c. **acid rain**: <https://www3.epa.gov/acidrain/education/site_students/whatisacid.html>

1. Definition:
2. Which cycle is involved?
3. How was the imbalance created?
4. What it the impact of the imbalance?

\*\*\* How does overpopulation make the problems above worse? Be as detailed in your answer as possible.

**C. Human and Economic on NC Ecosystems**

 One of North Carolina’s major commercial industry comes from pigs. Watch the following video and then answer the following questions. <https://www.youtube.com/watch?v=A6QTfFUxSR8>

|  |  |  |  |
| --- | --- | --- | --- |
| **Problem in NC** | **Description of what's happening and its causes** | **Description of impact of the problem on NC** | **Solutions being tried or ideas for solving the problem** |
| Hog Waste Lagoons |  |  |  |

**D. One more global issue: Deforestation**

1. Watch the following **deforestation** video at: <https://www.youtube.com/watch?v=M4jhjt1_eyM>
2. Describe deforestation.
3. Name two places that it is most common.

a.

b.

1. What are two reasons why it happens?

a.

b.

1. Which Cycle of Nature is MOST affected by deforestation?
2. What is one solution to this problem?

**E. In conclusion….**

1. Besides the ecological issues already mentioned in this activity, what is **one** other ecological problem that you know of and what's a possible solution to the problem?

Problem:

Possible solution:

2. For two of the ecological problems mentioned in this activity, describe how human overpopulation makes the problem worse. a.
 b.