Energy in the Ecosystem WebQuest

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date \_\_\_\_\_\_\_\_\_\_\_\_\_ Pd. \_\_\_\_\_\_

1. Go to [http://www.zephyrus.co.uk/foodpuzzlechain.html](http://www.zephyrus.co.uk/foodpuzzlechain.html%20) and complete the food chain “quiz.” Make sure to answer these questions as you go. [In other words, all of these questions can be answered by the information found as you work through this quiz.]
   1. Green plants make their own food, so they are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
   2. What is a predator?
   3. What is an example of a producer that fish could eat?
   4. What is the general term for organisms that live in soil and fallen leaves on the forest floor? What is one example of them?
2. Go to [http://www.sciencebob.com/lab/q-web-chain.html](http://www.sciencebob.com/lab/q-web-chain.html%20) and answer this question: What is the difference between a food chain and a food web?
3. Go to <http://www.cas.psu.edu/DOCS/WEBCOURSE/WETLAND/WET1/identify.html> and answer these questions.
   1. List the organism(s) that are producers.
   2. List the organism(s) that are consumers.
   3. Draw three food chains found within this food web.
   4. How many different food chains can you find in the food web pictured?
   5. What is missing from this food web?
4. Go to [http://www.crickweb.co.uk/ks2science.html#foodchains](http://www.crickweb.co.uk/ks2science.html%23foodchains%20) to answer these questions. This site will lead to a “title” page. Click on the **green box** that looks like a food chain. After reading through the introductory page that follows, click on the “next” button in the upper left-hand corner.
   1. Select “River” Habitat: Write out the food chain.
   2. Select “Woodland” Habitat: Write down the food chain.
   3. Select “Seashore” Habitat: Write down the food chain.

1. Go to [http://oceanlink.island.net/ONews/ONews7/plankton.html](http://oceanlink.island.net/ONews/ONews7/plankton.html%20) to answer these questions.
   1. Why is phytoplankton so important to the marine (water) ecosystem?
2. Go to [http://www.vtaide.com/png/foodchains.htm](http://www.vtaide.com/png/foodchains.htm%20) to answer these questions.
   1. In any ecosystem, there are fewer carnivores than herbivores. Why? [**Your answer needs to specifically include a description of how energy is transferred**].
   2. Why would it be extremely rare to find a food chain with nine links in it?
3. Go to [http://www.elmhurst.edu/~chm/onlcourse/chm110/outlines/foodenergy.html](http://www.elmhurst.edu/~chm/onlcourse/chm110/outlines/foodenergy.html%20) to answer these questions.
   1. As energy passes to a higher trophic level, approximately \_\_\_\_\_\_ of the useful energy is lost.
   2. What is the benefit to a society if everyone reduces the amount of meat they eat? [Use the concepts discussed with energy in the ecosystems to answer this question].

**These are extra credit options. Answer them once you’ve completed the above work.**

1. Go to <http://www.seafriends.org.nz/enviro/soil/depend.htm> and browse the whole website. There are many controversial tidbits there, so take your time to understand what they are trying to say. After reading each section, *write a question* that you still have even after reading the site.
   1. History:
   2. Concern:
   3. Food Requirements:
   4. Meat or Vegetarian:
   5. Why need soil:
   6. Sustainability:
   7. Overall, what do you think about the message(s) found in this website?
2. Go back to <http://www.vtaide.com/png/foodchains.htm> and scroll down until you find the “create a food web” link. Click on that link and follow the directions on the page. After you create your food web, don’t forget to put your name in the appropriate box and print the food web (no, do NOT use the color printer at school). Attach that food web to this paper.