

Name _____ Date _____ Hour _____

Food Webs and Biomagnification Web Quest

Goal: Understand Biomagnification and how it affects a group of organisms within a food chain.

1. Use the following website to gain additional understanding of how toxins move within a food chain.
 - a. <http://oceanexplorer.noaa.gov/edu/learning/player/lesson13/l13la1.html>
 - b. Read the introduction and complete the following data table to show you have done the activity

Trial	Diet Fed to Bird	Live or Die
1	Large Clams only	
2	Small Clams only	
3	Large Fish Only	
4	Small Fish Only	
5	Small Clams and Small Fish	
6	Large Clams and Small Fish	

- c. Answer the questions at the bottom of the page in your own words. (DO NOT COPY ANSWERS FROM THE ANSWER BUTTON!)
1. Research Bioaccumulation and Biomagnification. Take notes on these sites to help you understand! Turn these in with your assignment.
 - a. <http://www.scienceclarified.com/Ex-Ga/Food-Web-and-Food-Chain.html#ixzz4vJX87kbA>
 - b. <http://cimioutdoored.org/bioaccumulation/>

Assessment:

Mercury is a heavy metal that often contaminates our Great Lakes here in Michigan, sources of mercury can be traced back to many factories and businesses that used to dump mercury contaminated waste into the watershed. Mercury is easily absorbed by aquatic plants and bottom feeders like shrimp, small fish, clams, etc. Those organisms are eaten by small fish such as perch, bluegill, sunfish, and small/largemouth bass. Bears feed off of fresh fish from streams and lakes. People are known to eat both small fish and other bottom feeders like clams and scallops.

1. Complete the food pyramid to show which organism is at each trophic level.
2. Which organisms are in the greatest abundance? Which trophic level are they on? Which organisms are the least abundant? Which trophic level are they on?
3. Explain why people (especially women) are advised to limit their consumption of fish from the great lakes because of the health hazards of Mercury exposure.

