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Bugging Out: Questions for students to answer

Directions: Use the resources provided in class to answer your assigned questions (Those that are circled.) Your answers will become part of your final "bugging out" project.

Echo the question in your answer. Write your answers in cursive and please make sure your spelling is correct. Write your answers on notebook paper, please. In some cases, references are provided.

Section I: Characteristics

1. Do all animals have a backbone? Do all animals have skeletons? (Text: page A47)
2. Describe the skeletons of invertebrates. (Text: page A47)
3. Describe the way a grasshopper's leg is able to move. (Text: page A46)
4. Use your notes (from the power point presented in class by Mrs. Snyder) to write the five primary characteristics of insects.
5. According to your answer to question 4, is a Tarantula an insect? Tell why or why not.

Section II: Carbon-Oxygen Cycle

6. Look at the diagram on pages B8 – B9 in your text. What role(s) do insects perform in the cycle presented here? Be able to justify your answer.
7. Termites are insects that eat wood. They assist two other groups of organisms (page B9) in releasing CO_2 into the atmosphere.
8. Are insects dependent on solar energy? Explain your answer

Section III: Ecosystems

9. Think about the word population. What populations are we studying in this project?
10. Are insects a part of a community? Read your text; page B28 – 29 to find facts to help you.
11. Describe the ecosystem in which a grasshopper might live. Make sure you include the definition of an ecosystem in your answer. ? (Text: page B28)
12. Find out the niche for each of the following organisms: aphids, spiders, pea plants, salmon, and stream bugs. (Resources:

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http://www.iit.edu/~smart/gilecar/lesson1.htm and http://dnr.metrokc.gov/wlr/waterres/Bugs/role.htm#chain)

13. Describe a healthy ecosystem. (Text: page B29)
14. How does a symbiotic relationship aid in survival of organisms in an ecosystem? Use aphids and ants as your example. (Text page B45)
15. Use the reference provided to draw and explain a food chain. (Reference: http://www.arcytech.org/java/population/facts_foodchain.html)

Section IV: Value

16. Are insects valuable? Read through your text, pages B34 – 39 to locate information for your answer. Use the phrase energy transfer in your answer.
17. Do insects provide information biologists can use to determine the health of an ecosystem?
18. What roles do the following insects fulfill? Termites, Bees,
    a. Here are some references: http://www.backyardnature.net/ecology.htm
    b. http://www.bacteriamuseum.org/niches/features/bugs.shtml
    c. http://www.riverdeep.net/current/2002/03/030402t_insects.jhtml
19. How do pesticides impact insects and other members of a food web?
    a. http://www.ipm.ucdavis.edu/WATER/U/foodweb.html