WLHS / Biology/ Oppelt Name_____

UNIT 2 (CH 3-4) STUDY GUIDE – ECOLOGY; Communities & Biomes

A) Textbook Review Questions: Chapter 3 Assessment (page 90-92) *selected questions*

Chapter 3 Assessment:			
1)	8)	13)	22)
2)	9)	14)	23)
3)	10)	15)	24)
4)	11)	20)	
5)	12)	21)	

B) Textbook Review Questions: Chapter 4 Assessment (page 124-126) *selected questions*

Chapter 3 Assessment:			
1)	7)	14)	20)
2)	8)	15)	21)
3)	9)	16)	22)
4)	10)	17)	23)

C) QUESTIONS:

1) Determine if the following items are **BIOTIC** or **ABIOTIC**.

_____ Climate _____School of fish _____Rocks

_____ Bacteria _____Glacier _____ Moose

2) Distinguish between **AUTOTROPHS** and **HETEROTROPHS**. Give an example of each.

3) Read the following scenarios and decide whether the scenario is describing one of the following symbiotic relationships; ***predations, competition, mutualism, commensalism, or parasitism***

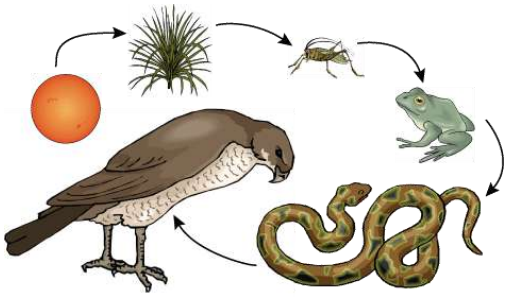
a. _____Tachinid larvae are a type of fly. They live by burrowing into a butterflies cocoon, then feeding on the plump caterpillar inside. They eventually kill the caterpillar before it becomes a butterfly. Afterwards, they cut a hole in the cocoon and fly away.

b. _____After a lion makes a kill on its prey, hyena's often try to gang up on the lion for a share of the kill. They usually try to distract the lion while members of their band snatch a bite and run.

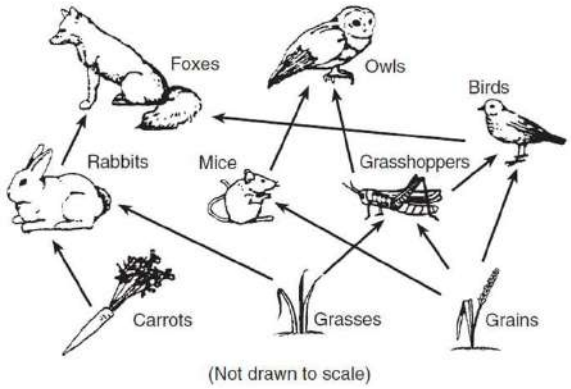
c. _____The oxpecker is a kind of bird. oxpeckers land on rhinos or zebras and eat ticks and other parasites that live on their skin. The oxpeckers get food and the beasts get pest control. Also, when there is danger, the oxpeckers fly upward and scream a warning, which helps the symbiont.

d. _____In the Antarctic a bush sponge attaches to the outer shell of the sea scallop. This give the brush sponge the place to anchor on the ocean floor. The sea scallop is not harmed by the attached sponge.

4) In the following food chain, identify the **producer, tertiary consumer, primary consumer, secondary consumer, quarternary consumer.**

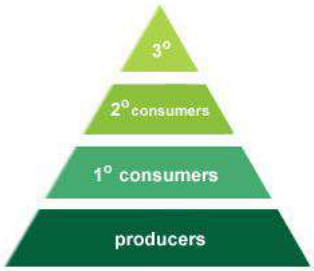


5) In the following food web, identify a **producer, tertiary consumer, primary consumer, secondary consumer, quarternary consumer, omnivore, carnivore, herbivore**.

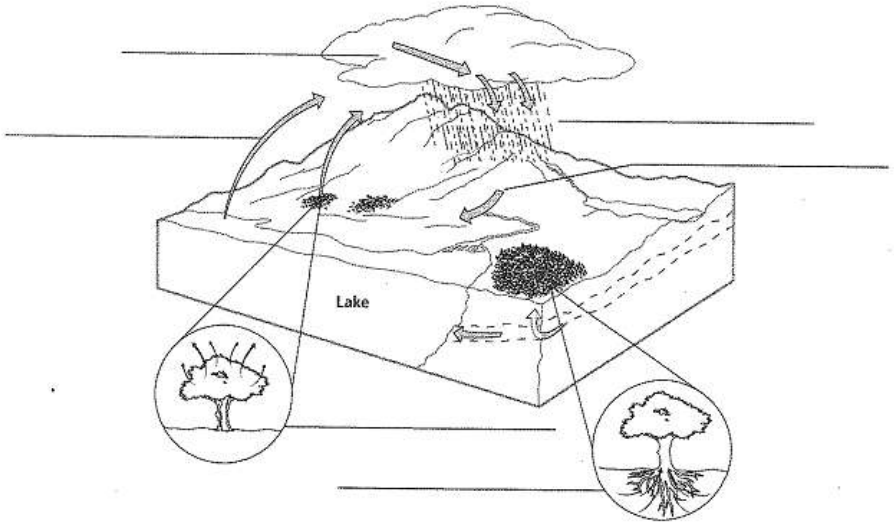


6) a. What is the %energy available at each trophic level? _____ WHY?? (where does the rest go?)

b. Examine the energy pyramid to the right. If there was 250,000kcal of energy available to the producers, how much energy will be available to the secondary consumers?



7) In the chart below, identify the following steps of the water cycle; **condensation, precipitation, runoff, root uptake, evaporation, transpiration.**



10) How is carbon taken out of the atmosphere? Then list at least three things that release carbon into the air.

11) What is nitrogen used for? What is nitrogen fixation? How are decomposers a part of the nitrogen cycle?

12) Explain the difference between **PRIMARY SUCCESSION** and **SECONDARY SUCCESSION**. Give examples to help explain.

13) What are **PIONEER SPECIES**? In what stage of succession would you expect to find these?

14) Compare **PHOTIC** and **APHOTIC** zones in aquatic biomes.

15) What are **ESTUARIES**? (where do you find them? what are the major characteristics?)

16). What are the limiting factors of terrestrial biomes? Of aquatic biomes?

17). Describe the key characteristics of the following biomes:

a. Tundra_____

b. Taiga _____

c. Deciduous Forests _____

d. Rain Forest _____

e. Grassland_____

f. Desert _____

18) Compare **WEATHER** and **CLIMATE**.

19) Describe 3 factors that affect climate.

20) Compare **NICHE** and **HABITAT**.

21) Define keystone species. Give an example of a keystone species and describe what would happen to an ecosystem if the keystone species was removed?

Ways to Study/Review

1. Review all **lecture notes** and readings.
2. Answer the questions at the end of EACH section AND chapter.
3. Study with a friend (not just socialize).
4. Look over old study guides.
5. Flashcards
6. Putting lecture notes into your own words
7. Make yourself a test and take it. Also, have a friend make a test too and exchange tests.
8. Come into class with questions!
9. Review a little each day…. Do not cram the night before!

My child has studied this study guide for at least 20 minutes (2 bonus points)

_____

(Parent/guardian signature)