

Name/Number: _____

Date: _____

Ecosystems (4.5) Study Guide (Answer Key)

Part A: Vocabulary - Define the following words.

Individual: one plant or animal that belongs to a specific species

Community: all the plant and animal populations living together in the same general area and depending on each other

Population: a group of plants or animals that belong to the same species living in the same place at the same time

Ecosystem: a community and its nonliving environment

Consumer: a living thing that eats other living things for energy

Producer: green plants that use the sun's energy to produce food

Decomposer: organisms such as fungi and bacteria that break down dead plant and animal material into nutrients which are then returned to the soil

Herbivore: Animal which eats plants for energy

Omnivore: an animal which eats plants and animals for energy

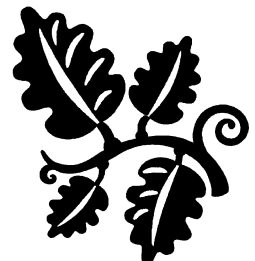
Carnivore: an animal which eats other animals for energy

Part B: Ecosystems

Name the living parts of an ecosystem.

plants

animals



Name the nonliving parts of an ecosystem.

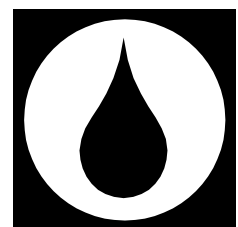
Rocks/soil/

air

water

energy/sunlight

temperature/climate



Part C: Energy Pyramid

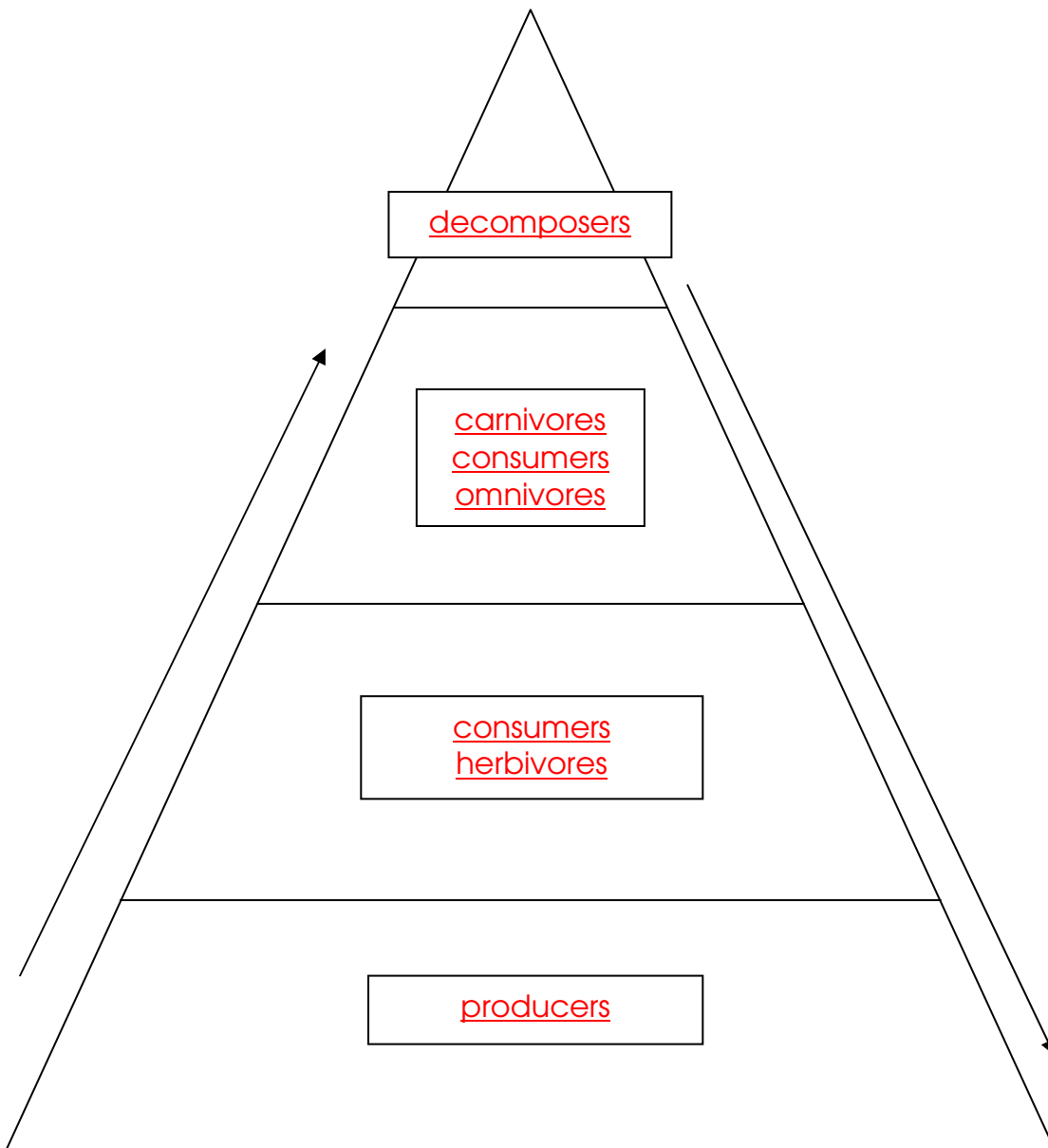
Directions: Label the diagram below which shows how energy is used in an ecosystem showing that the greatest amount of energy is in the producers. Use the words from the word bank. Draw arrows to show the direction the energy flows.

Word Bank

consumers
producers

decomposers
omnivores

herbivores
carnivores



Part D: Adaptations

Animals and plants have structural and behavioral adaptations which help them to meet their needs. Ex. birds have different kinds of beaks for the different kinds of food each one eats. Also, birds migrate to warmer climates where food can be found in winter.

Label each of the following adaptations with a "B" for a behavior or with an "S" for structure.

s claws

b fly away from danger

s hollow bones

s shallow roots

s scales

b run fast

s hard shell

s thorns

Name three of each kind on your own.

Behaviors

Structures

Part E: Habitats

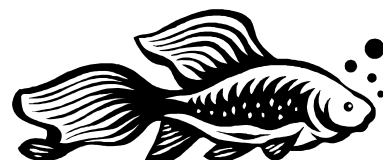
What does an organism's habitat provide?

food

shelter

space

water



Part F: Niches - Fill in the blank with a word from the Word Bank.

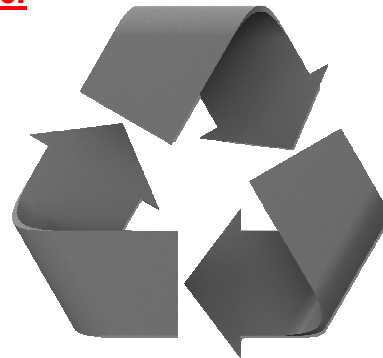
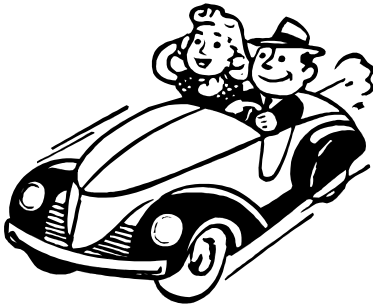
Word Bank		
occupy	organism	function
change	cycle	food

A niche is the **function** that an organism performs in the food web of that community. A niche also includes everything else the **organism** does and needs in its environment. No two types of organisms **occupy** the exact same niche in a community. During its life **cycle**, an organism's role in the community, its niche, may change. For example, what an animal eats, what eats it, and other relationships will **change**.

Part G: Human Impact

How do humans impact ecosystems? (Both good and bad)

Examples may include....People affect Earth's ecosystems more than any other living thing. Pollution, over use and taking up of space are major factors in mans impact on ecosystems.

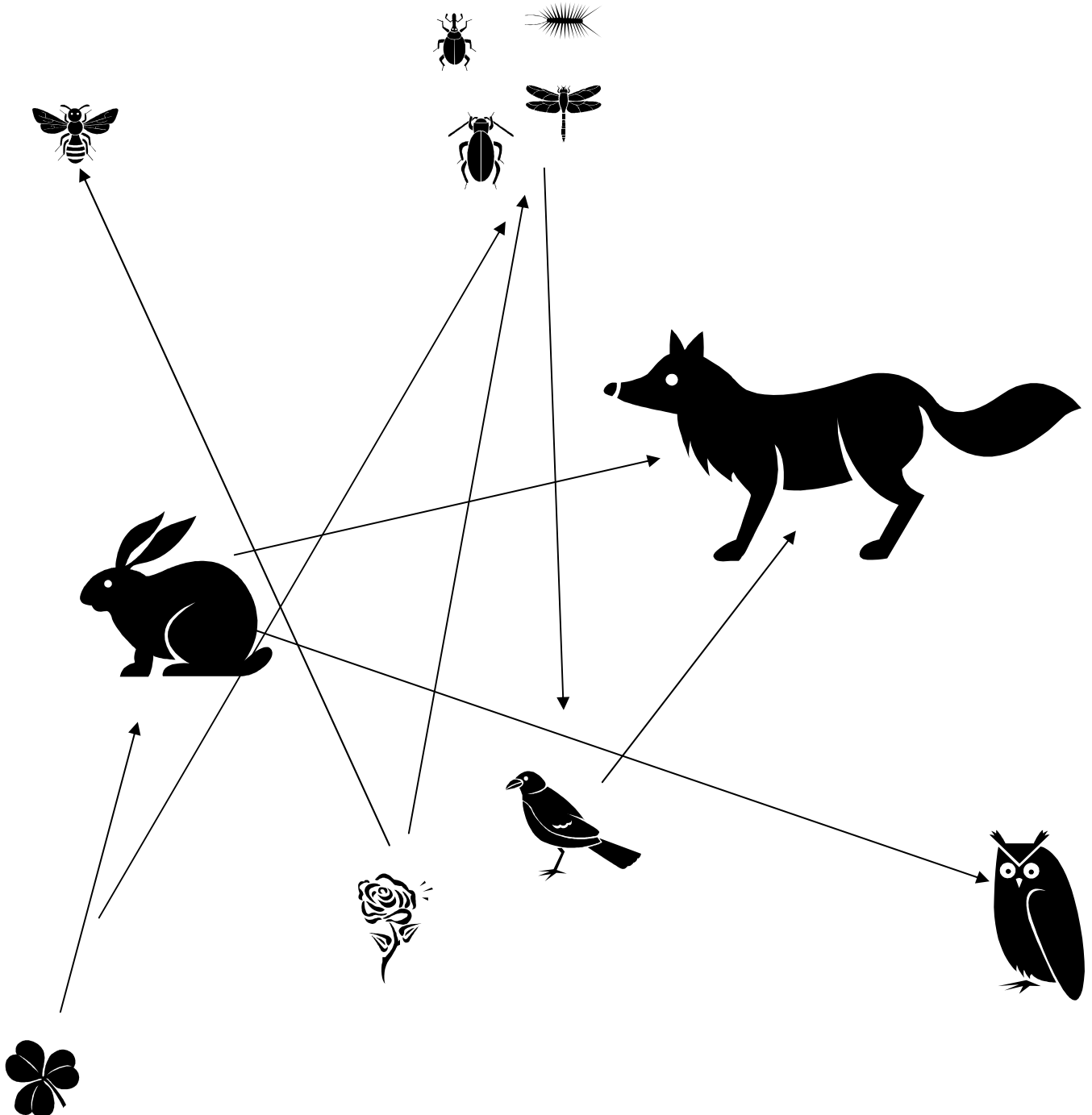


The source of energy on Earth is the sun. How does the sun's energy cycle through ecosystems?

The sun's energy cycles through ecosystems from producers through consumers and back into the nutrient pool through decomposers.

Part H: Food Web - Draw a food web which shows the following information. Use arrows to show how energy moves through a food web.

- clover and flowers grow in a field
- bees eat the nectar from the flowers
- rabbits eat the clover
- insects eat the clover and the flowers
- robins eat insects
- foxes eat robins and rabbits
- owls eat rabbits



Part I: Essay: Answer in a complete paragraph of 5-6 sentences.

Explain why an animal might not be able to survive if it is moved out of its natural environment.

Wrong climate

Food may not be right

Wrong adaptations

No mate

Can't meet its needs

Eaten by other animals/ can't defend itself

No shelter

No protection

Too much or not enough water



Study Hard! You Living Systems Test will be on
