

SCIENCE PUZZLERS, TWISTERS & TEASERS

Interactions of Living Things

Nature's Philosophers

1. A group of astronauts has discovered amazing new life-forms on a distant moon. Each life-form was asked to describe its philosophy of life in a sentence or two. Help the astronauts categorize each as a producer, carnivore, omnivore, scavenger, or decomposer by writing the appropriate term in the space provided.

a. "To kill is wrong. To let food go to waste is worse."

b. "The swift receive the most satisfying reward."

c. "One must lead a balanced life."

d. "Self-reliance is the path to contentment. Always seek the light of truth."

e. "Ashes to ashes; dust to dust."

Find the Oddball

2. In each group of terms below, three terms are related. Circle the term that doesn't belong and explain why.

a. grass, wind, rain, soil

b. salamander, water lily, humidity, bacteria

c. population, community, organism, predator

Interactions of Living Things, continued

Soap Opera Symbiosis

3. A new soap opera called *Days of Our Life Science* is soon to be released worldwide. In this program, the relationships between the characters mirror the interactions of organisms in nature. Close examination of these clips from the first episode will reveal the type of symbiosis each relationship displays. Classify each relationship as mutualism, commensalism, or parasitism.

a. **Zander:** "Before I met you, I was adrift in a sea of despair. And my shoes were always untied. I don't know what I'd do without you."

Ashley: "If I didn't have you, my appliances would all still be broken and I would eat only fast food. I love you."

Zander and Ashley display _____ .

b. **Rodolfo:** "I think Suzette is just using me. But, for some reason, I don't really mind."

Rodolfo and Suzette display _____ .

c. **Rafiq:** "When will Sonya realize that I'm not in love with her anymore? And when will she stop borrowing my lawnmower without asking? My lawn is a mess."

Rafiq and Sonya display _____ .

d. **Pablo:** "Darling, you are everything to me; my sun, my moon, and my stars. You are like a glimmering diamond, shining from a pit of murky ooze. Though I don't know you, all I desire of this world is the chance to gaze upon your angelic face for five minutes."

Molly: "Well, okay, as long as I don't have to talk to you."

Pablo and Molly display _____ .

Anagram

4. Rearrange the letters from the following words to reveal a fact about a niche.

I CAN SAY IF I FLEW A HOE



2. a. sinuses b. foot
 c. 8 d. digestive
3. a. symmetry, head b. radula
 c. antennae, mandibles, head capsule
 d. nematodes e. segmented
 message: Insects are everywhere (almost).
4. a. insects b. mollusk
 c. sponges

Fishes, Amphibians, and Reptiles, p. 31

1. a. notochord b. tail
 c. cartilage d. ectotherm
 e. backbone f. spinal cord
2. a. turtle b. alligator
 c. tortoise d. lizard
 e. crocodile The missing letter is R.
3. a. fishes b. reptiles
 c. amphibians d. reptiles
 e. fishes f. amphibians
 g. reptiles h. fishes
 i. amphibians j. reptiles
 k. fishes l. fishes
 m. amphibians n. reptiles
 o. reptiles x. shark
 y. toad z. turtle

Birds and Mammals, p. 33

1. a. capybara, South America
 b. opossum, North America
 c. koala; Australia, New Guinea, or South America
 d. ostrich, (Africa) e. kiwi, New Zealand
2. a. orangutan, because they both have hands
 b. whale, because they both use sonar to navigate
 c. platypus, because it uses its sensitive nose to find food
 d. therapsids, because they are both extinct

Interactions of Living Things, p. 35

1. a. scavenger b. carnivore
 c. omnivore d. producer
 e. decomposer
2. a. Grass is the only term that is not an abiotic part of the environment.
 b. Humidity is the only term that is not a biotic part of the environment.
 c. Predator is the only term that is not a level of organization in the environment.

3. a. mutualism b. commensalism
 c. parasitism d. commensalism
4. A niche is a way of life.

Cycles in Nature, p. 37

1. combustion, evaporation, succession, precipitation, respiration, decomposition
 2. moss, fern, tree, grass, lake, river, pond, stream
 3. a. sugar b. water
 c. mass d. fuels

The Earth's Ecosystems, p. 39

1. a. tropical rain forest b. grassland
 c. temperate deciduous forest
 d. tundra e. coniferous forest
 f. desert
2. a. tributary b. waterfall
 c. meander
3. a. estuary b. sargassum
 c. marine d. coral reef
 e. benthic zone
4. a. permafrost b. conifer
 c. diversity d. tundra

Environmental Problems and Solutions, p. 41

1. a. deforestation b. pollution
 c. biodiversity
2. recycle
3. containers bearing recycling symbols; a bicycle, skateboard, and roller blades instead of cars; a paper recycling bin; a place marked to collect aluminum cans; metal lunch boxes instead of paper bags; cactus uses less water than grass

Body Organization and Structure, p. 43

1. a. *Teeth* is the only term that is not a part of the integumentary system.
 b. *Flexor* is the only term that is not a muscle fiber type.
 c. *Tendon* is the only term that is associated with the muscular system.
 d. *Digestion* is the only term that is not a function of the skeletal system.
- A code within the code : gene
2. a. organ b. muscle
 c. rib d. nail
 e. cells