

Living And Nonliving Things Worksheet Answer Key PDF

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Part 1: Building a Foundation

Which of the following is a characteristic of living things?

undefined. A) They do not require energy.

undefined. B) They are made up of cells. ✓

undefined. C) They do not respond to stimuli.

undefined. D) They are not capable of reproduction.

Living things are characterized by being made up of cells.

Which of the following are examples of nonliving things? (Select all that apply)

undefined. A) Rocks ✓

undefined. B) Trees

undefined. C) Water ✓

undefined. D) Animals

Nonliving things include rocks, water, but not trees or animals.

Describe in your own words what it means for an organism to adapt to its environment.

Adaptation refers to changes in an organism that enhance its survival in a specific environment.

List two characteristics that distinguish living things from nonliving things.

1. Characteristic 1

They grow.

2. Characteristic 2

They reproduce.

Living things grow and reproduce, while nonliving things do not.

Part 2: Comprehension and Application

Which statement best explains why a virus is often debated as being living or nonliving?

undefined. A) Viruses can reproduce on their own.

undefined. B) Viruses do not have a cellular structure. ✓

undefined. C) Viruses can grow and develop.

undefined. D) Viruses require energy from food.

Viruses are often considered nonliving because they do not have a cellular structure.

Which of the following processes are associated with living things? (Select all that apply)

undefined. A) Metabolism ✓

undefined. B) Photosynthesis ✓

undefined. C) Evaporation

undefined. D) Respiration ✓

Processes like metabolism and respiration are essential for living organisms.

Explain how nonliving elements like water and sunlight are essential for the survival of living organisms.

Water and sunlight are crucial for processes like photosynthesis and hydration in living organisms.

If a plant is placed in a dark room, which characteristic of living things will be most directly affected?

undefined. A) Growth ✓

undefined. B) Reproduction

undefined. C) Cellular structure

undefined. D) Response to stimuli

Growth will be most directly affected as plants require light for photosynthesis.

Consider a desert ecosystem. Which nonliving factors would most likely influence the types of living organisms found there? (Select all that apply)

undefined. **A) Temperature** ✓

undefined. **B) Soil type** ✓

undefined. **C) Humidity** ✓

undefined. D) Predation

Factors like temperature, soil type, and humidity influence the organisms in a desert ecosystem.

Provide an example of how a living organism might adapt to a sudden change in its environment.

An example could be animals changing their migration patterns due to climate change.

Part 3: Analysis, Evaluation, and Creation

Which of the following best describes the relationship between living and nonliving things in an ecosystem?

undefined. A) Living things are independent of nonliving things.

undefined. B) Nonliving things depend on living things for energy.

undefined. **C) Living things depend on nonliving things for survival.** ✓

undefined. D) Nonliving things are unaffected by living things.

Living things depend on nonliving things for survival, such as water and nutrients.

Analyze the following scenario: A forest fire has destroyed a large area of trees. Which living and nonliving factors will be most affected? (Select all that apply)

undefined. **A) Soil nutrients** ✓

undefined. **B) Animal habitats** ✓

undefined. **C) Water availability** ✓

undefined. **D) Plant diversity** ✓

Soil nutrients, animal habitats, and plant diversity will be significantly affected.

Discuss how the removal of a single nonliving element, such as water, could impact an entire ecosystem.

The removal of water would lead to the collapse of many living organisms and disrupt the ecosystem.

Evaluate the following statement: "All living things are dependent on sunlight." Which of the following is a correct assessment?

undefined. A) True, because all living things perform photosynthesis.

undefined. B) False, because some living things can survive without sunlight. ✓

undefined. C) True, because sunlight is the only source of energy.

undefined. D) False, because sunlight is not needed for cellular respiration.

The statement is false because some living things can survive without sunlight.

Consider a city park ecosystem. Which actions could improve the interaction between living and nonliving components? (Select all that apply)

undefined. A) Planting more trees ✓

undefined. B) Reducing water pollution ✓

undefined. C) Increasing concrete surfaces

undefined. D) Introducing new animal species

Actions like planting trees and reducing pollution can improve ecosystem interactions.

Propose a plan to create a small garden ecosystem, detailing how you would balance living and nonliving components to ensure sustainability.

A sustainable garden ecosystem would include diverse plants, proper water management, and native species.