

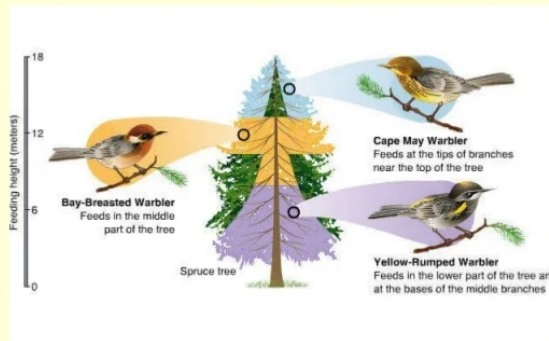
E. Intro To Niches

Intro to Niches

Welcome to the world of niches, where every living thing has a special role to play! Just like puzzle pieces fitting together perfectly, organisms find their unique places in nature. In this journey, we'll explore what niches are and how they help maintain the balance of life in ecosystems.

Niche

- Each species occupies a niche in the community. A niche is the role the species plays, and includes the type of food it eats, where it lives, where it reproduces, and its relationships with other species.



What is a Niche?

A niche is like a job or a role that each living thing has in its habitat. It's all about how an organism fits into its environment and what it does to survive and thrive. Imagine it as a tailor-made suit that suits an animal's needs and lifestyle.

Habitats and Resources

Habitats are the places where living things call home. A habitat provides everything an organism needs to live - food, water, shelter, and space. Each habitat offers different resources, and organisms adapt to use those resources efficiently.

Example of a Niche

Let's understand niches with an example. In a forest, we have different animals like rabbits, foxes, and owls. Each of them has a unique niche.

1. Rabbits are herbivores that eat plants. They are fast runners, allowing them to escape from predators.

2. Foxes are carnivores that eat small animals like rabbits. They are clever hunters and can sneak up on their prey.
3. Owls are nocturnal predators that hunt at night. Their excellent eyesight and hearing help them catch small animals.

As you can see, each animal has its own niche that helps them survive in the forest habitat.

Avoiding Competition

Niches help prevent competition between organisms. When two animals have similar needs, they might end up competing for resources like food and shelter. But if they have different niches, they can peacefully coexist without fighting for survival.

Human Niches

Humans also have niches in ecosystems! We are a diverse bunch, with different jobs and roles. Some of us are farmers, growing food for others and animals. Some are teachers, spreading knowledge and educating the young. Others are doctors, taking care of people's health. All these roles contribute to the balance of human society.

Environmental Changes and Niches

Sometimes, habitats change due to natural events or human activities. When this happens, some organisms may struggle to find their place, while others may adapt and thrive in the new conditions. This can lead to shifts in the ecosystem and changes in niches.

Every Niche Matters

In nature's grand design, every niche matters. The tiniest insect, the tallest tree, and the largest predator - each plays a vital role in maintaining the balance of life on Earth. When we understand and appreciate the importance of each niche, we can better protect and preserve our environment.

1. What is a niche?
 - A) A job or a role that each living thing has in its habitat.
 - B) A tailor-made suit for animals to wear.
 - C) A puzzle piece that fits perfectly in nature.
 - D) A habitat where living things call home.
2. What does a habitat provide for living things?

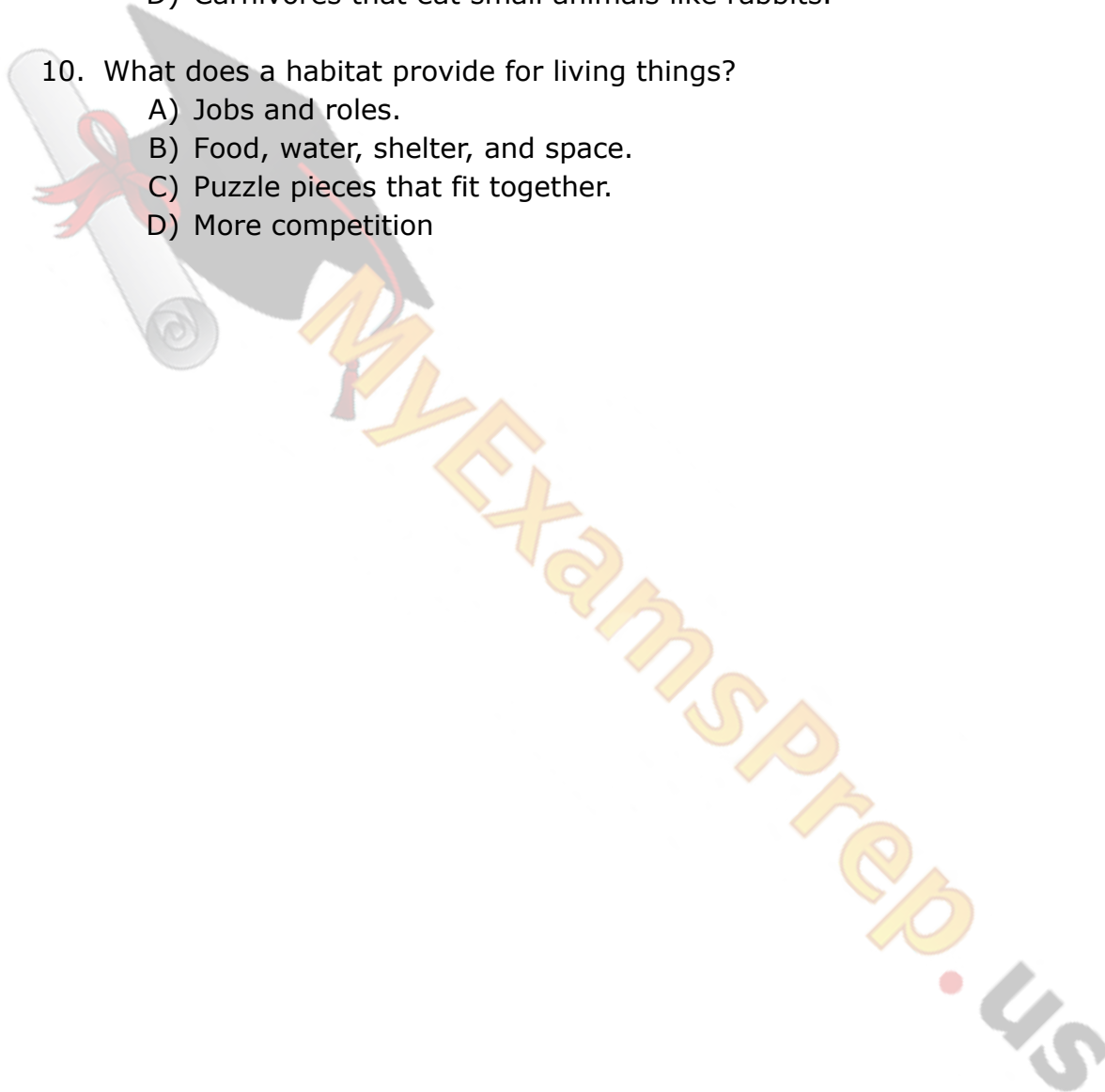
- A) Jobs and roles.
 - B) Food, water, shelter, and space.
 - C) Puzzle pieces that fit together.
 - D) Different resources for humans.
3. What are rabbits' niche in a forest?
- A) Nocturnal predators that hunt at night.
 - B) Slow animals that leaves
 - C) Carnivores that eat small animals like rabbits.
 - D) Herbivores that eat plants and escape from predators.
4. How do niches help prevent competition between organisms?
- A) By making animals fight for survival.
 - B) By allowing different animals to have similar needs.
 - C) By providing different resources for animals to use.
 - D) By helping animals find their place and live peacefully.
5. How do owls catch their prey at night?
- A) By eating small animals like rabbits.
 - B) By using their excellent eyesight and hearing.
 - C) By being fast runners that eat plants.
 - D) By hunting during the day.
6. What are humans' niches in ecosystems?
- A) Nocturnal predators that hunt at night.
 - B) Fast runners that eat plants.
 - C) Different jobs and roles, like farmers, teachers, and doctors.
 - D) Carnivores that eat small animals like rabbits.
7. What happens when habitats change due to natural events or human activities?
- A) Organisms either struggle to find their place or adapt and thrive in the new conditions.
 - B) All organism always flourish
 - C) Carnivores that eat small animals like rabbits.
 - D) Organisms fight for survival.
8. Why does every niche matter in nature's grand design?
- A) Because it encourages survival of the fittest
 - B) Because it creates competition between organisms.
 - C) Because it makes every living thing wear a tailor-made suit.
 - D) Because each niche plays a vital role in maintaining the balance of life on Earth.

9. What is an example of a niche in a forest habitat?

- A) Rabbits
- B) A pride of lions
- C) Different jobs and roles, like farmers, teachers, and doctors.
- D) Carnivores that eat small animals like rabbits.

10. What does a habitat provide for living things?

- A) Jobs and roles.
- B) Food, water, shelter, and space.
- C) Puzzle pieces that fit together.
- D) More competition



ANSWERS & EXPLANATIONS

1. A) A job or a role that each living thing has in its habitat.
 - A niche is like a job or a role that each living thing has in its habitat, describing how an organism fits into its environment and what it does to survive and thrive.
2. B) Food, water, shelter, and space.
 - Habitats provide living things with food, water, shelter, and space they need to live and survive.
3. D) Herbivores that eat plants and escape from predators.
 - Rabbits' niche in a forest is being herbivores that eat plants and are fast runners, which helps them escape from predators.
4. D) By helping animals find their place and live peacefully.
 - Niches help prevent competition between organisms by allowing different animals to have different needs, so they can live peacefully without fighting for survival.
5. B) By using their excellent eyesight and hearing.
 - Owls catch their prey at night by using their excellent eyesight and hearing, which helps them hunt in the dark.
6. C) Different jobs and roles, like farmers, teachers, and doctors.
 - Humans' niches in ecosystems are different jobs and roles they have, such as farmers, teachers, doctors, and others.
7. A) Organisms either struggle to find their place or adapt and thrive in the new conditions.
 - When habitats change due to natural events or human activities, some organisms may struggle to find their place, while others may adapt and thrive in the new conditions.
8. D) Because each niche plays a vital role in maintaining the balance of life on Earth.
 - Every niche matters in nature's grand design because each one plays a vital role in maintaining the balance of life on Earth.
9. D) Carnivores that eat small animals like rabbits.
 - An example of a niche in a forest habitat is carnivores that eat small animals like rabbits.

10.B) Food, water, shelter, and space.

- Habitats provide living things with food, water, shelter, and space they need to live and survive.

