D4. Physical Changes

Physical Changes in Organisms During the Different Seasons

As the seasons change, so do many living things around us. Animals and plants undergo fascinating physical changes to adapt to the shifting weather and environmental conditions. Let's explore some of the remarkable transformations that occur in organisms during each season.

Spring
Spring is a time of renewal and growth. As the weather warms up, animals become more active, and plants start to bloom. Many animals shed their winter fur to prepare for the warmer temperatures. Birds return from their winter migration, and you'll hear them singing joyful songs. Trees and plants produce new leaves and flowers, adding vibrant colors to the landscape.

Summer
Summer is the season of heat and energy. Many animals grow thicker fur or feathers to protect themselves from the sun and heat. Insects, like butterflies and bees, become more abundant as they play a crucial role in pollination. Plants produce fruit, providing food for animals and humans alike. Animals are busy building nests, and some even lay eggs during this time.

Fall
Fall is a season of change and preparation for the colder months. Animals start to store food and build up fat reserves to survive the winter. Some animals, like squirrels, gather nuts and seeds to store in their burrows. Trees undergo their own transformation, as the chlorophyll in their leaves breaks down, revealing the beautiful colors of red, orange, and yellow.

Winter
Winter is a time of rest and survival. Many animals, especially those that cannot tolerate the cold, hibernate in their cozy dens or burrows. During hibernation, their metabolic rate slows down, and they conserve energy. Some animals, like the Arctic fox, grow thicker fur to keep warm in the freezing temperatures. Evergreen trees, like pine and fir, retain their leaves to avoid water loss and provide shelter for birds.

Migration
Migration is a unique physical change that certain animals undergo during seasonal changes. Birds, butterflies, and even some mammals travel long distances to find more favorable conditions. For example, many birds fly south during the colder months to escape the harsh winter and find food in warmer regions. The physical changes during migration include preparing for long flights, building up fat reserves, and altering their plumage or coloration.

Physical changes in organisms during the different seasons are essential for their survival and reproduction. These adaptations ensure that animals and plants can make the most of each season and thrive in their ever-changing environment.

1. What happens to animals' fur during the spring season?
   A) They grow thicker fur.
   B) They shed their winter fur.
   C) They remain the same.
   D) They change color.

2. Which season is a time of rest and survival for many animals?
   A) Spring
   B) Summer
   C) Fall
   D) Winter

3. What is the purpose of growing thicker fur or feathers during the summer?
   A) To prepare for hibernation.
   B) To protect from the sun and heat.
   C) To build nests.
   D) To store food for winter.

4. What do many animals do during the fall season to prepare for winter?
   A) Shed their fur.
   B) Gather nuts and seeds to store.
   C) Hibernate in their cozy dens or burrows.
   D) Lay eggs.

5. Which season is known for the beautiful colors of red, orange, and yellow in leaves?
   A) Spring
   B) Summer
   C) Fall
   D) Winter

6. What happens to the chlorophyll in leaves during the fall season?
   A) It breaks down.
   B) It grows thicker.
   C) It changes color.
   D) It produces flowers.

7. Why do some animals hibernate during winter?
   A) To prepare for long flights.
   B) To find more favorable conditions.
   C) To conserve energy and survive the cold months.
   D) To build nests.

8. What is migration?
    A) Shedding of fur or feathers during seasonal changes.
    B) The regular, seasonal movement of animals from one region to another.
    C) The process of animals hibernating during winter.
    D) The growth of thicker fur to protect from the sun and heat.

9. What do animals build during the summer season?
    A) Nests
    B) Burrows
    C) Flowers
    D) Nuts

10. What is the purpose of migration for certain animals?
    A) To escape extreme temperatures.
    B) To build nests for laying eggs.
    C) To provide shelter for birds.
    D) To find more favorable conditions and sources of food.

ANSWERS & EXPLANATIONS

1. B) They shed their winter fur.
    - The passage mentions that during spring, animals shed their winter fur to prepare for warmer temperatures.

2. D) Winter.
    - The passage describes winter as a time of rest and survival for many animals.

3. B) To protect from the sun and heat.
    - The passage explains that during the summer season, animals grow thicker fur or feathers to protect themselves from the sun and heat.

4. B) Gather nuts and seeds to store.
    - The passage mentions that during the fall season, some animals gather nuts and seeds to store for winter.

5. C) Fall.
    - The passage states that fall is known for the beautiful colors of red, orange, and yellow in leaves.

6. A) It breaks down.
    - The passage explains that during the fall season, the chlorophyll in leaves breaks down, revealing the colors of red, orange, and yellow.

7. C) To conserve energy and survive the cold months.

- The passage explains that some animals hibernate during winter to conserve energy and survive the cold months.

8. B) The regular, seasonal movement of animals from one region to another.
    - The passage defines migration as the regular, seasonal movement of animals from one region to another.

9. A) Nests.
    - The passage mentions that animals build nests during the summer season.

10. D) To find more favorable conditions and sources of food.
    - The passage explains that migration allows certain animals to find more favorable conditions and sources of food in different regions.