Animal Adaptations

Use this key to check answers and read the explanations.

1. Which feature makes a beaver’s hind feet especially good for swimming?
   - A. Webbing between the toes
   - B. Feathers on the toes
   - C. A shell around each toe
   - D. Hooves instead of toes

   Correct answer: A. Webbing between the toes
   The webbing gives the feet a broad surface for pushing against water.

2. What is the name for colors or patterns that help an animal blend into its surroundings?
   - A. Hibernation
   - B. Migration
   - C. Camouflage
   - D. Navigation

   Correct answer: C. Camouflage
   Camouflage can make an animal harder for a predator or prey to notice.

3. What color is a typical snowshoe hare’s winter coat?
   - A. Bright green
   - B. White
   - C. Purple
   - D. Orange with black stripes

   Correct answer: B. White
   Its white winter coat can blend with snow.

4. What is the term for an animal’s regular seasonal movement from one region to another?
   - A. Hibernation
   - B. Molting
   - C. Camouflage
   - D. Migration

   Correct answer: D. Migration
   Migration can take animals to seasonal sources of food or suitable conditions.

5. Which example describes a physical structure rather than something the animal does?

A. A mule deer freezing in place
B. A beaver’s webbed hind feet
C. A group of birds migrating south
D. A mammal sheltering in a den

Correct answer: B. A beaver’s webbed hind feet
Webbing is part of the body. The other choices describe behavior.

6. A mule deer stops moving when it senses danger. How can the behavior help?

A. Staying still makes the deer harder for a predator to notice.
B. Staying still changes the shape of the deer’s feet.
C. Staying still moves the deer to a different habitat.
D. Staying still makes the deer more visible by design.

Correct answer: A. Staying still makes the deer harder for a predator to notice.
The deer’s colors are less likely to draw attention when it stops moving.

7. How do a snowshoe hare’s broad hind feet help it cross loose snow?

A. They make the snow pack lighter after it passes.
B. They melt the snow under each step.
C. They increase the pressure under each step.
D. They spread its weight over a larger area.

Correct answer: D. They spread its weight over a larger area.
The wide feet spread the animal’s weight and reduce how deeply it sinks.

8. What advantage can a dense winter coat give a mammal in cold air?

A. It prevents the animal from needing oxygen.
B. It makes water inside the body freeze faster.
C. It reduces heat loss by insulating the body.
D. It stops the seasons from changing around the animal.

Correct answer: C. It reduces heat loss by insulating the body.
A dense coat helps trap air and slows the transfer of heat from the body.

9. Why can spending winter in a hibernating state help some mammals when food is scarce?

A. Their energy use drops.
B. They gain energy by digesting snow alone.
C. They must eat more often while asleep.
D. Their bodies stop needing any energy.

Correct answer: A. Their energy use drops.
Hibernation lowers energy demand so stored energy can last longer.

10. An animal spends the coldest part of each day in a sheltered burrow. What type of adaptation is its pattern of entering the burrow?

A. A seasonal change in fur color
B. Anatomical
C. A change in its genes that day
D. Behavioral

Correct answer: D. Behavioral
The pattern describes an action. The burrow offers a refuge from harsher conditions outside.

11. Which comparison best tests whether white fur makes a model hare harder to spot on snow?

A. Put a large white model on snow and a tiny white model on grass.
B. Put only white models on many snowbanks and record the air temperature.
C. Put otherwise identical brown and white models on the same snow and compare detection rates.
D. Show one observer a drawing of a white model without a background.

Correct answer: C. Put otherwise identical brown and white models on the same snow and compare detection rates.
Keeping the background and model design fixed isolates the effect of fur color.

12. Several normally snowy weeks have bare brown ground. What is a likely drawback for a hare that has already changed to white?

A. Its legs become too short to run.
B. It is easier to see against the bare ground.
C. Its white fur means it can no longer hear.
D. It must stop eating until snow returns.

Correct answer: B. It is easier to see against the bare ground.
A trait that conceals the animal on snow can make it stand out against dark ground.

13. Which pair gives one structural adaptation and one behavioral adaptation, in that order?

A. Building a shelter and migrating
B. Moving seasonally and hiding during the day
C. A dense coat and a broad hind foot
D. A broad hind foot and moving to a milder region for winter

Correct answer: D. A broad hind foot and moving to a milder region for winter
Foot shape is a body structure. Seasonal movement is behavior.

14. Two sets of swimming models move their feet equally fast. Models with webbed feet move farther in each stroke. What does this support?

A. Webbing can make a stroke more effective at moving the animal through water.
B. Webbing makes water denser around the whole lake.
C. Swimming models permanently change their own foot shape.
D. Only foot color determines swimming distance.

Correct answer: A. Webbing can make a stroke more effective at moving the animal through water. The comparison isolates webbing while keeping stroke rate fixed.

15. Two habitats both get cold. One has food available all winter, and the other has almost none. Which observation best shows why winter survival strategies can differ?

A. Food availability affects only the color of snow.
B. Cold air requires every mammal to hibernate in either habitat.
C. Remaining active uses energy that is easier to replace where food stays available.
D. Animals of every species use the same strategy at the same temperature.

Correct answer: C. Remaining active uses energy that is easier to replace where food stays available. The value of staying active depends partly on whether an animal can keep meeting its energy needs.