

NATURAL SELECTION ON MY MIND

With your partner, discuss the questions below:

- A. Cheetahs (large African cats) are able to run faster than 60 miles per hour when chasing prey. How would a biologist explain how the ability to run fast evolved in cheetahs, assuming their ancestors could only run 20 miles per hour?

For Question B, use the numbered statements listed and circle the number which most closely corresponds to what you understand

- 1-The statement on the left is the only correct statement.
- 2-The statement on the left is more correct.
- 3-The statements are equally correct.
- 4-The statement on the right is more correct.
- 5-The statement on the right is the only correct statement.

If none of the statements represents your understanding, please explain.

- B. Ducks are aquatic birds. Their feet are webbed and this trait makes them fast swimmers. Biologists believe that ducks evolved from land birds which did not have webbed feet.

The trait of webbed feet in ducks:

Appeared in ancestral ducks because they lived in water and needed webbed feet to swim. 1 2 3 4 5

Appeared in ducks because of a chance mutation.

Explain:

For Questions C,D and E, use the numbered statements listed and circle the number which most closely corresponds to what you understand

- 1-The statement on the left is the only correct statement.
- 2-The statement on the left is more correct.
- 3-The statements are equally correct.
- 4-The statement on the right is more correct.
- 5-The statement on the right is the only correct statement.

C. If none of the statements represents your understanding, please explain.
While ducks were evolving webbed feet:

With each generation, most ducks had about the same amount of webbing on their feet as their parents. 1 2 3 4 5

With each generation most ducks had a tiny bit more webbing on their feet than their parents.

Explain:

D. If a population of ducks were forced to live in an environment where water for swimming was not available:

Many ducks would die because their feet were poorly adapted to this environment. 1 2 3 4 5

The ducks would gradually develop non-webbed feet.

Explain:

E. The populations of ducks evolved webbed feet because:

The more successful ducks adapted to their aquatic environment. 1 2 3 4 5

The less successful ducks died without offspring.

Explain: