

# Science

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(Chapter – 9) (Heredity and Evolution)

(Class – X)

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## Question 1:

Give an example of characteristics being used to determine how close two species are in evolutionary terms.

## Answer 1:

The presence of feathers in dinosaurs and birds indicates that they are evolutionarily related. Dinosaurs had feathers not for flying but instead these feathers provided insulation to these warm-blooded animals. However, the feathers in birds are used for flight. This proves that reptiles and birds are closely related and that the evolution of wings started in reptiles.

## Question 2:

Can the wing of a butterfly and the wing of a bat be considered homologous organs? Why or why not?

## Answer 2:

Wings of a butterfly are composed of membrane, while wings of a bat are composed of bony skeleton.

Hence, these are not homologous organs rather analogous organs.

## Question 3:

What are fossils? What do they tell us about the process of evolution?

## Answer 3:

Fossils are the remains of organisms that once existed on earth. They represent the ancestors of plants and animals that are alive today. They provide evidences of evolution by revealing the characteristics of the past organism and the changes that have occurred in these organisms to give rise to the present organisms.

