

Name _____



Natural Selection

Charles Darwin had one of the most revolutionary ideas ever in science: the theory of evolution. Evolution is the process by which animals and plants change over a very, very long period of time. A species is a group of animals or plants that are capable of mating. Although animals or plants within a species are very similar to one another, each individual is a tiny bit different, and from time to time this difference can mean that one individual lives while another within the same species does not. For example, a bird with a really strong beak that can crack a nut shell in order to eat the nut will be able to eat when no other seeds are available; a bird that cannot do this might die of starvation. Because offspring are usually very much like their parents in some ways, over time, if more and more birds with strong beaks are reproducing, and passing on the trait of having a strong beak to their offspring; and more and more birds without strong beaks are dying; over a period of time the beaks on a certain species of bird will tend to get stronger overall. The naturalist Charles Darwin called this process “natural selection”. Today, we call it “evolution”.

Darwin published a collaborative report on evolution in 1858 with another naturalist, Alfred Russel Wallace, who had made similar observations as Darwin. Darwin’s famous book, *The Origin of Species by Natural Selection* was published in 1859. Before the publication of Darwin’s book, people believed that every species on earth had always been there and had never changed in form. But Darwin showed that all living creatures on earth are descended from common ancestors and are still evolving today.

1. Explain the relationship between Darwin and Wallace.

2. Explain how Darwin’s book influenced the thinking of his time.
