

## **So What Really Happened to the Dinosaurs?**

We hypothesize that the dinosaurs disappeared because a giant meteor hit the earth and created a large cloud of dust that blocked sunlight and caused climate change. A key piece of evidence that supports our hypothesis is that iridium is rare on Earth but common in meteors and asteroids. In the late 1900s, scientists discovered a layer of clay rich in iridium that had formed during the Cretaceous Period. This suggests that a very large meteor hit Earth during the Cretaceous Period and created a large cloud of dust over the planet. The clues also tell us that meteors can be several miles across and can travel at 100,000 km. per hour, so a large meteor could create a huge impact that could affect the entire planet.

Once the dust was in the air, sunlight was blocked from getting to the Earth's surface. This caused plants to die off and the entire planet to cool. There are several pieces of evidence to support this idea, including the fact that dust reflects sunlight. The clues also tell us that large tropical plants called cycads declined rapidly during the Cretaceous Period and that cycads were a principal source of food for plant-eating dinosaurs. Another piece of evidence to support this idea is that the plankton population disappeared from the sea at the end of the Cretaceous Period. This was probably caused by global cooling. An important piece of evidence that helps us make this conclusion is that plankton populations decrease when the temperature of the sea drops.

So why did the dinosaurs go completely extinct? Probably because the cooling and lack of sunlight affected the whole food chain. As plants died off, plant-eating dinosaurs did too. Another reason is that the cooling affected the dinosaurs more than reptiles. The evidence that supports this idea is that large reptiles do not live further north than southern Georgia. On the other hand, mammals of all sizes can live in cold temperatures. That is probably why the dinosaurs went completely extinct but mammals survived.

