



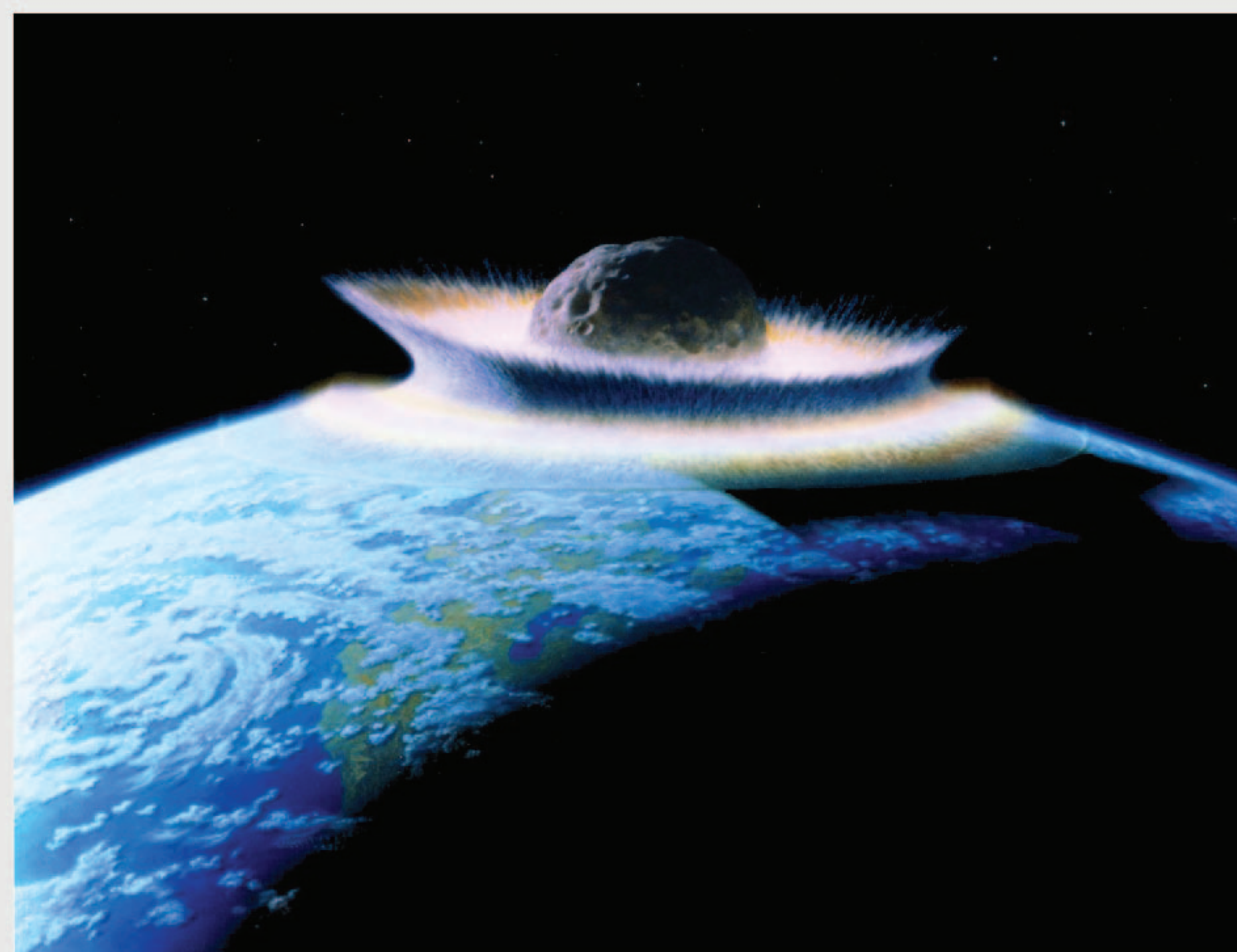
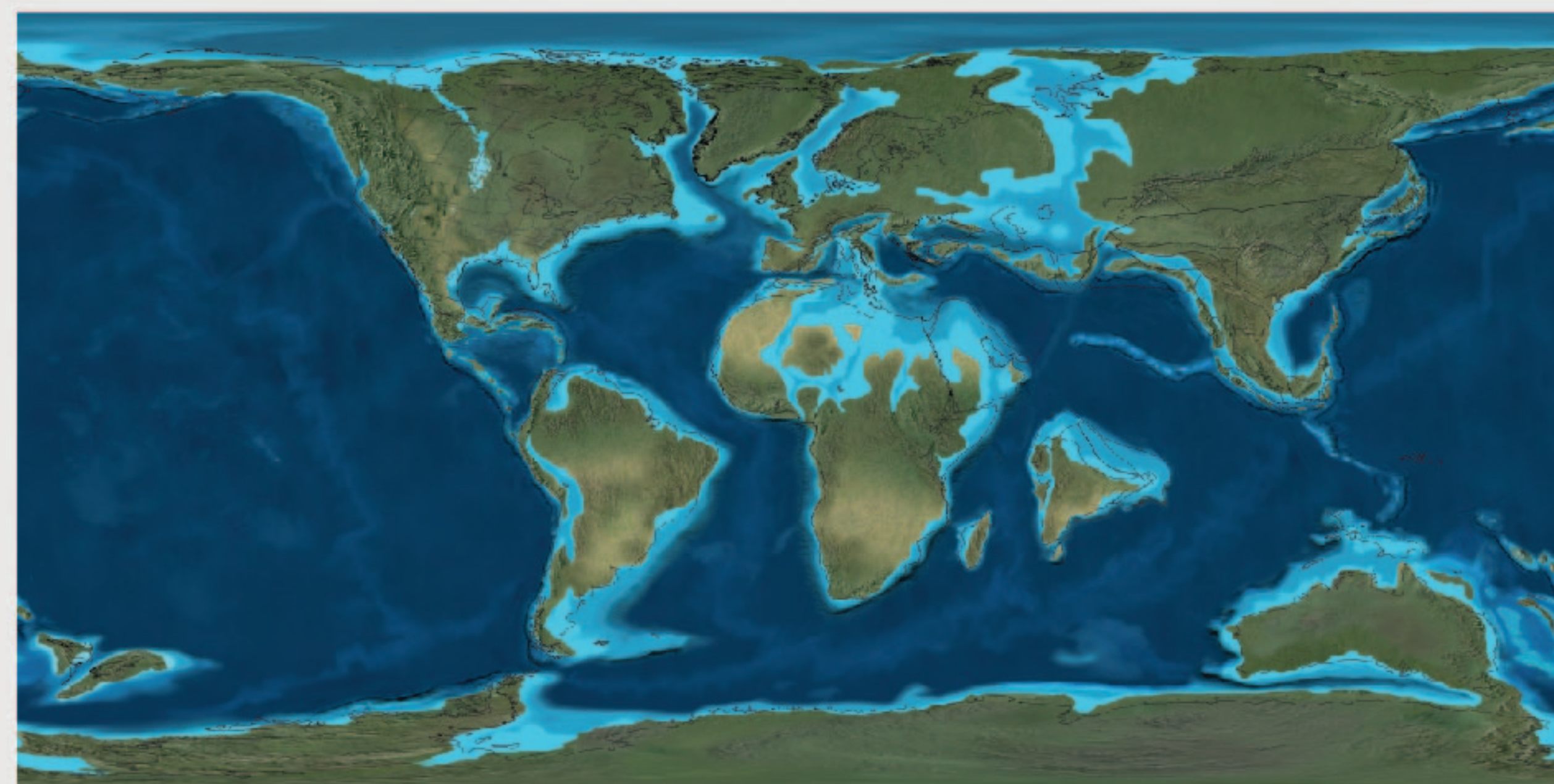
DRILL DOWN DEEPER INTO DINOSAUR DOOMSDAY

How did that asteroid kill the dinosaurs?

The asteroid that impacted the Earth 66 million years ago was bigger than Mt Everest. Something that big would obviously kill everything beneath it where it hit, but how did it kill animals around the world?

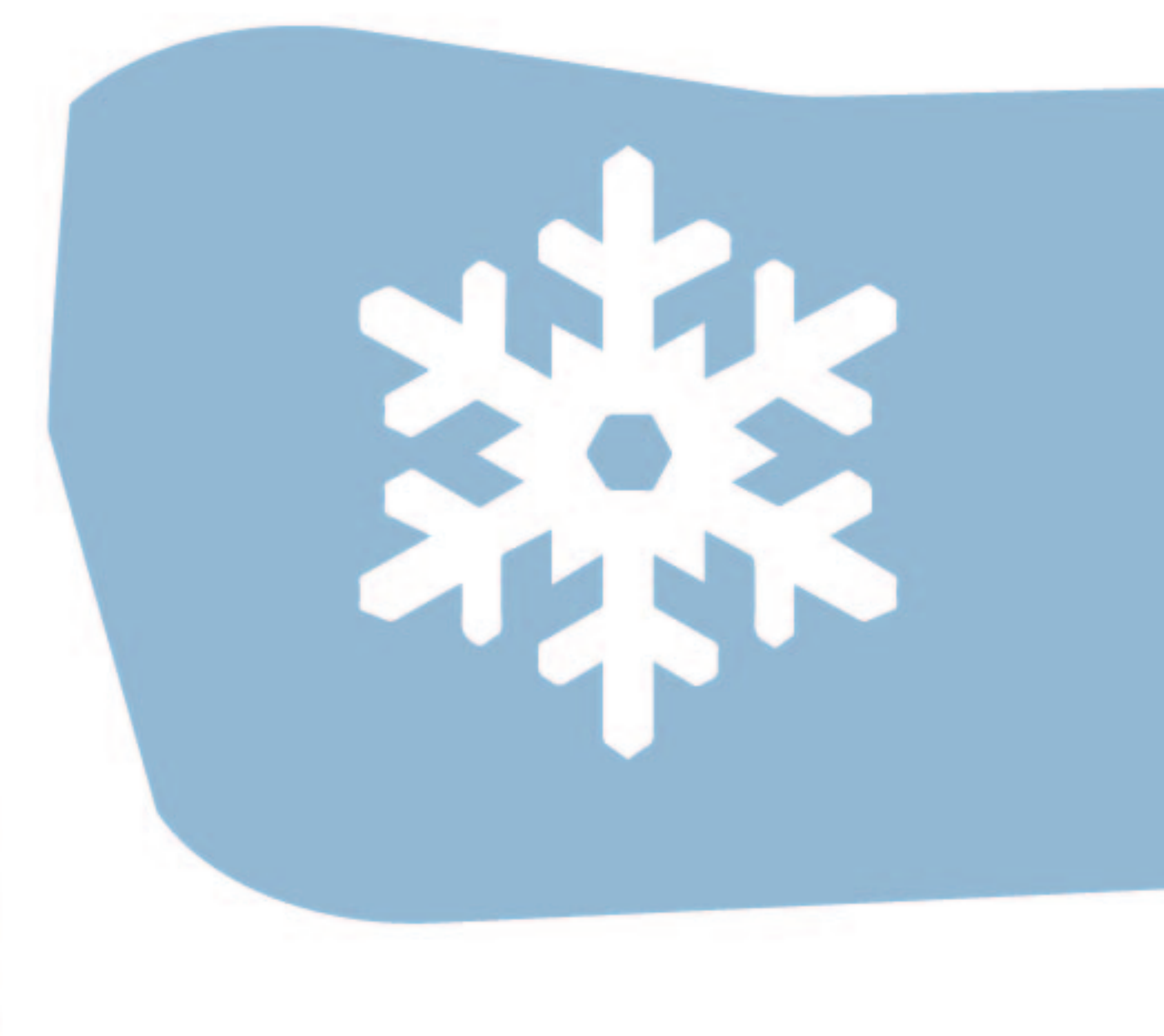
The asteroid impact was so big that it triggered a series of natural disasters around the world. The asteroid landed in shallow ocean water and created tsunamis that travelled thousands of miles in multiple directions to devastate coastal areas. The impact created an explosive blast that would have killed everything in its path for hundreds of miles. The impact may have shaken the Earth enough to cause massive earthquakes, and even volcanic eruptions, across the planet. The impact shot bits of rock into the atmosphere, which heated up as they rained back down and made the air hot enough to roast a turkey. That heat would have set off forest fires around the world.

As devastating as all those events were, the biggest killer was likely the dust released in the atmosphere by the impact. The dust was light enough to float in the air and block out the sun possibly for years. This created freezing winter conditions all year long around the world. The lack of sunlight killed the plants, which then caused many animals that depended on plants for food to die. About 75% of species went extinct at the time of the asteroid impact, including species of plants, plankton, mammals, and dinosaurs.



Try this!

Check out the "Dinosaur Doomsday" backpack from the front desk to look with your magnifier at bits of rock drilled from the Chicxulub Crater.



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Learn more about the devastation of the Chicxulub asteroid impact at www.insearchofearthsecrets.com.



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Collect your *Dino*
Doomsday passport sticker

Why do we think that those layers in cores were created by the Chicxulub asteroid?

Scientists have found the layer of debris created by the Chicxulub asteroid impact in deep sea cores drilled around the world. We concluded that these layers were caused by this impact for a number of reasons.

The layers all have iridium in them.

Iridium is a metal that is very rare on Earth, but common in space. Because of this, iridium on Earth is almost always found in the remains of meteorites. Since these layers in the seafloor contain a lot of iridium, they are likely to have come from a large object from space like a huge asteroid.

The layers are all the same age as the Chicxulub Crater.

These layers and the Chicxulub Crater are 66 million years old. We know this because many rocks contain tiny, radioactive “clocks.” These clocks are radioactive elements that change into different elements at a constant rate. Scientists know how to read these microscopic clocks to figure out the age of a rock.

Since these layers contain iridium, mark a boundary for a mass extinction, and are the same age as the creation of the Chicxulub Crater, we can conclude they were all caused by the same asteroid impact event.

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The fossils beneath these layers are different from the fossils above the layers.

We know the asteroid impact caused the mass extinction of a lot of different living things. When scientists look with a microscope at cores that have the impact layer, they find the older layers beneath the impact layer have fossil shells from a wide variety of plankton species. The newer layers above the impact layer contain fossils from only a handful of species. The rest of the species are gone, indicating a mass extinction occurred at the same time the impact layer was created.

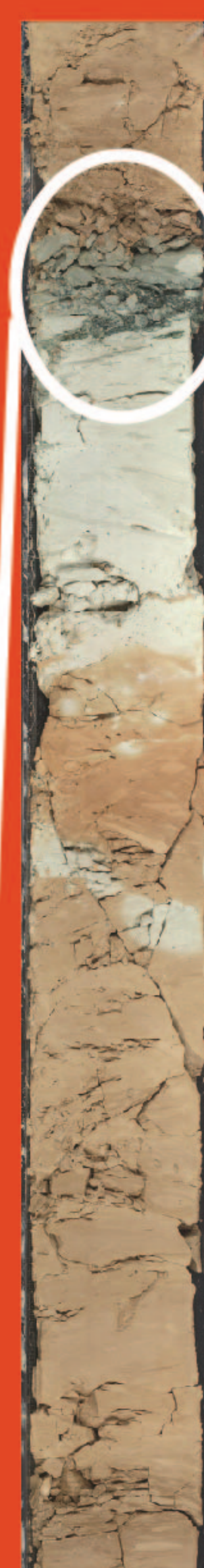
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