

## Short Informational Text for Guided Practice

### Going . . . Going . . . Gone?

About 4.5 billion years ago when Earth was created from a spinning cloud of gas and dust, other planets formed, too, as our solar system came together. At first, Earth was little more than a large, fiery rock with a boiling surface hurling through space around the sun. It didn't have an atmosphere like we have today to protect it from the sun's burning rays or keep rocks from space from slamming into its surface. One rock was so big it broke off a chunk of Earth and sent it flying 238,900 miles away to form our moon.

After a billion years or so Earth settled down enough for its surface to cool into an outer crust (where we live), a good atmosphere to form, and enough rain to fall to make the oceans. The first signs of life appeared. In the 3.5 billion years since then, an amazing variety of plants and animals have lived on our planet. Scientists don't know how many there are because we find new ones every year, and many die off before we learn about them. We know only a small percent of all the plants and animals there are, maybe 14 out of every 100. A recent *best guess* by scientists is that there could be 298,000 kinds of plants and 8.7 million kinds of animals on Earth. We have studied only 1.2 million kinds of animals.

For plants and animals to die (become extinct) is normal. Every year around the world, thousands of species disappear. New species may come along, but it takes a very long time to happen. Some scientists think as many as nine out of 10 animals that have ever lived are now extinct. Since life began on Earth, there have been five periods when huge numbers of plants and animals died off, far more than usual. They were all caused by nature. Gigantic volcano eruptions created monster earthquakes, spread fires, made water unrunnable, com unfit to drink, and cooled the air by partly blocking sunlight with clouds of dust. The most recent mass die-off was 65 million years ago. A huge object from space blasted into the planet so hard it choked the air with dust and made temperatures drop. Many kinds of plants and animals, including the mighty dinosaurs, soon disappeared forever.

Today we're in the sixth period when plants and animals are perishing faster than normal. But this one isn't caused by nature. It's not because of volcanoes or earthquakes or meteors from space. It's being caused by us. Human activities are warming the atmosphere. Glaciers are melting. Ocean levels are rising. Weather is changing. We are polluting air and water; destroying coral reefs; killing animals for their ivory or hides; plowing under, concreting over, and poisoning plants that animals must have for food. Today human activities are quickly undoing what it took 3.5 billion years to create—a balance in nature among all the plants and animals who were sharing the planet before humans came along.