

Springboard^{into} Comprehension

Identifying Detail Why Are There Bears in the Sky?

Main Idea Show Some Backbone

Sequencing Life on Venus

Compare and Contrast Communities of the Desert

Fact and Opinion The Birds at Waders Flat

Cause and Effect **Global Changes**

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Global Changes



Written by Sarah Edwards

Global Changes

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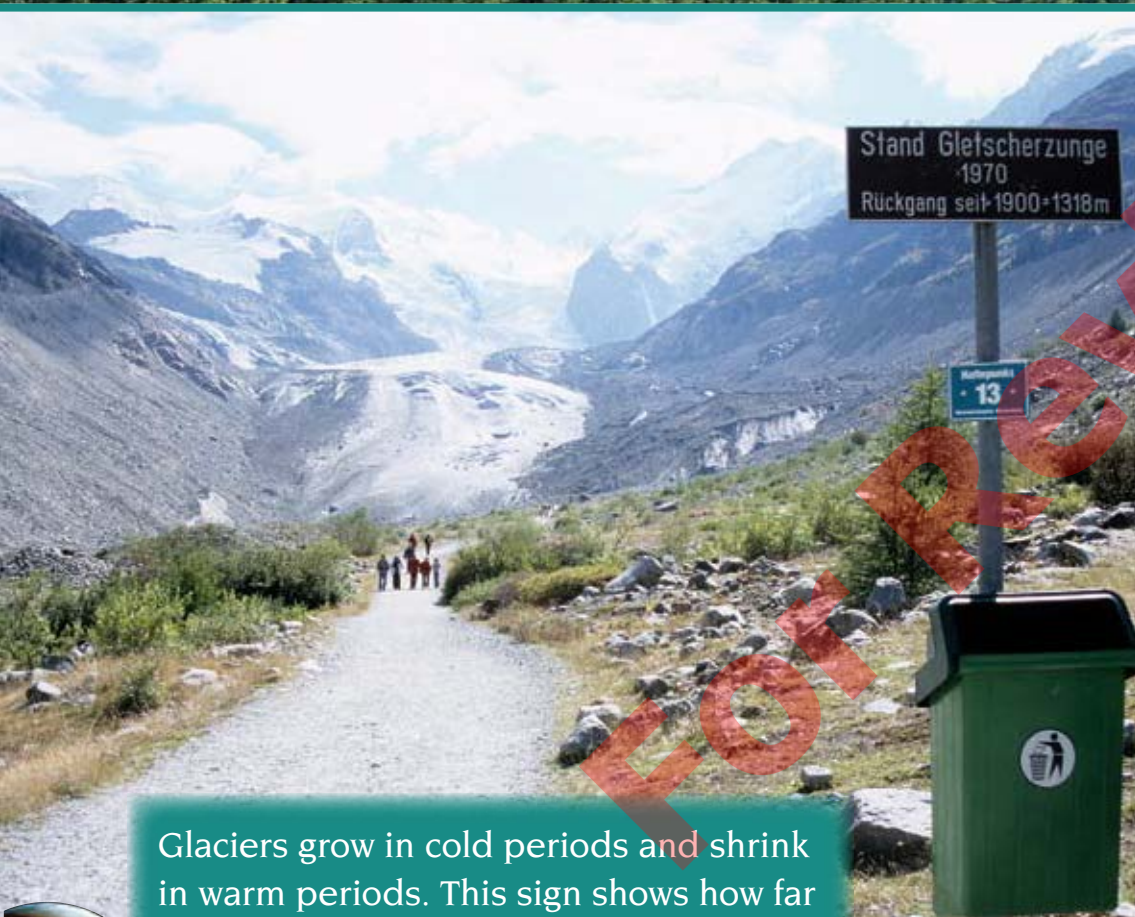
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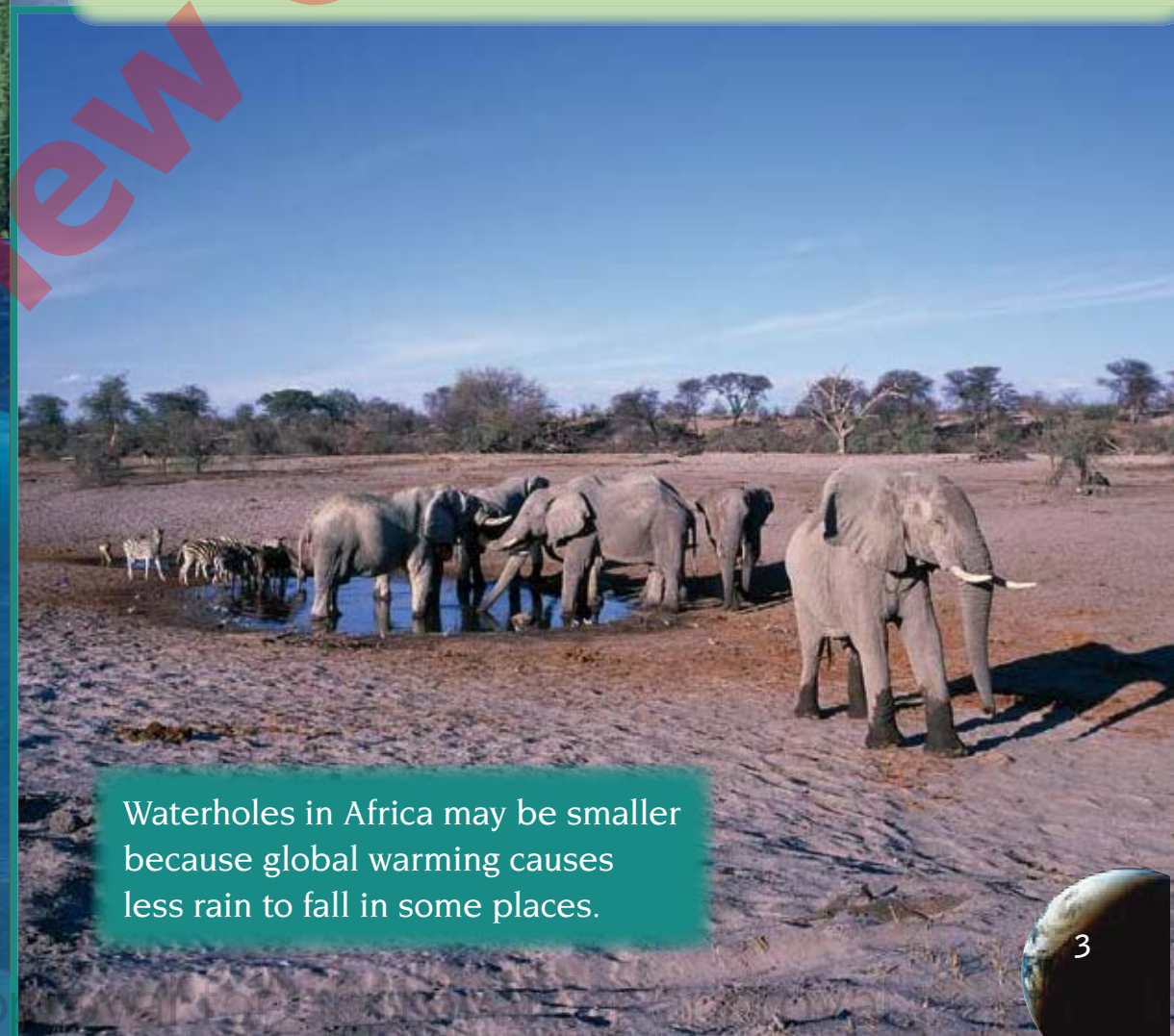
Introduction

Earth's climate is always changing. Over a very long time, Earth has had warm periods and cold periods. This is called **climate change**. Climate change can be a natural process.

Today, Earth's climate is getting warmer. Many scientists say that Earth's climate is warming too quickly. This is called **global warming**. Scientists do not think this is natural. They think Earth is warming because of things that people do.



Glaciers grow in cold periods and shrink in warm periods. This sign shows how far the glacier reached about 40 years ago.



Waterholes in Africa may be smaller because global warming causes less rain to fall in some places.

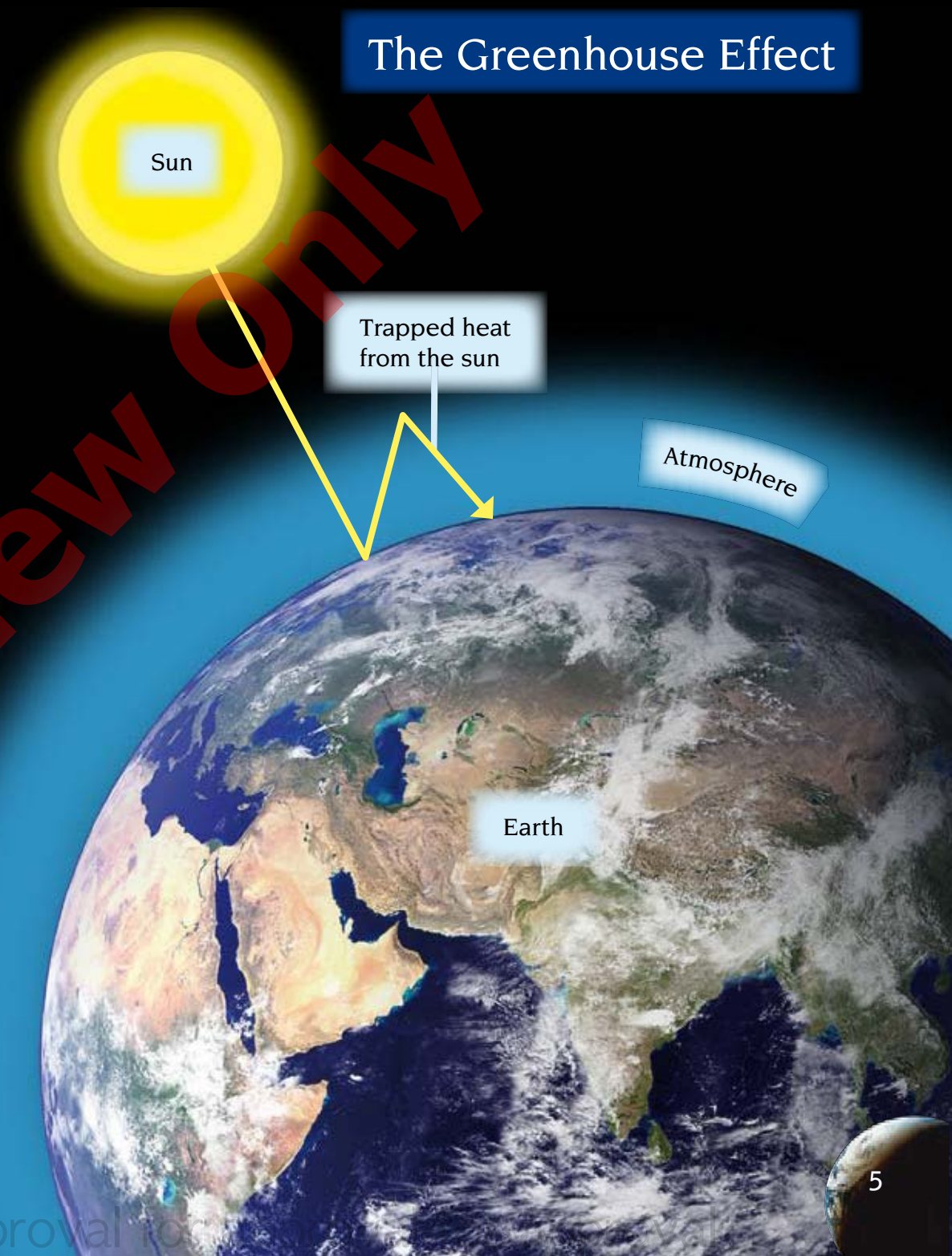
Global Warming Causes and Effects

Many scientists think that people cause global warming. They cause it by burning oil, coal, and natural gas. These fuels formed from plant and animal remains. That is why they are called **fossil fuels**.

People burn fossil fuels to make power. They burn them to drive cars. When people use fossil fuels, it creates gases. These gases remain in the layer of air around Earth. This layer is called the **atmosphere**.

The atmosphere keeps Earth warm, because it traps heat from the sun. The heat cannot go into space, so it stays near Earth. This process is called the **greenhouse effect**, because it is like the way people warm plants in a **greenhouse**.

The Greenhouse Effect



Usually, the greenhouse effect is a good thing. It makes Earth warm enough for life to exist. However, when there are too many greenhouse gases from fossil fuels, the air heats up too much. Scientists think Earth's climate is getting warmer because people are using too many fossil fuels. These changes could cause problems for people. They may hurt plants and animals, too.



Exhaust fumes from cars also put gases into the atmosphere.



Pollution from power plants is another source of greenhouse gases in the atmosphere.