# THE ORLD

THE GOOD AND THE BEAUTIFUL LIBRARY

by Ileana Board

Our planet is made up of four different layers: the crust, the mantle, and the outer and inner cores. Despite the crust Outer Core being the thinnest of the layers, it is home to all living things on Earth. Even with the inner layers being so relatively close to our feet, we have never seen the mantle or the core layers.

### Crust

### Mantle

Inner Core

Some parts and processes of the underground world mimic the world above; believe it or not, raging rivers, trickling streams, and even lakes can be found underground. When rain falls from the sky, we see it puddle on the ground, but often it sinks through the soil and seems to disappear. Where does it go?

> The rain continues to travel down through the rock layers until it is stopped by solid rock and begins to collect in a pool. As more and more rainwater collects, the pressure from this trapped water builds until it cannot be contained and bursts out in a stream.

A scientist who studies caves and underground rivers is called a speleologist.

> **Speleologists** study everything about caves, including the formation and content of caves, the water and creatures within caves, and the history of caves. This field of science utilizes a variety of scientific skills. Knowledge of geography, chemistry, ecology, physics, and cartography is needed to become a successful speleologist.

When a volcano erupts above ground, molten rock flows down from the volcano's opening. As it flows and comes in contact with cooler surroundings in crevices underground, the sides and tops of the flow harden, eventually forming a cave-like tube with hot lava still traveling through it.

# SCIENTISTS WHO STUDY ROCKS ARE CALLED GEOLOGISTS.

**Geologists** study the earth, including its history, materials, and processes, in order to help predict what will occur in the future and explain what is happening now. Gemstones, like diamonds and rubies, are crystallized minerals that form in many different ways, just like the different types of rocks we talked about earlier. The basic requirements needed for crystallization are space, pressure, heat, time, and the right ingredients. Gemstones and precious metals, such as silver and gold, are found as single pieces or in veins (like the veins in your hands) in solid rock.

Gold veins



Today, fossil fuels represent 80% of the world's energy. Because they are impossible to make artificially and take so long to form, these fuels are called nonrenewable energy sources. Every day, scientists are working hard to find other sources of energy. I wonder if any new fuels buried in the world under our feet will be discovered in our lifetimes.

# WORLD BENEATH MY FEET

Have you ever wondered what it would be like to explore the subterranean realm deep inside the earth? The world mostly concealed from our sight is one of mystery, beauty, and wonder. Come and discover the incredible underground rivers and lakes, lava tubes, rocks, and rare gems that lay within the crust of the earth. Understand the importance of how the substances found below contribute to the wonderful life and advancements we enjoy above. This beautiful book filled with stunning images and incredible facts gives readers a new appreciation for the vast world just beneath our feet.

## ORIGINAL PUBLICATION

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