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WELCOME TO




GOD'S DESIGN[®] FOR HEAVEN & EARTH



You are about to start an exciting series of lessons on earth science. *God's Design[®] for Heaven and Earth* consists of three books: *Our Universe*, *Our Planet Earth*, and *Our Weather and Water*. Each of these books will give you insight into how God designed and created our world and the universe in which we live.

No matter what grade you are in, first through eighth grade, you can use this book.




1st–2nd grade

Read only the “Beginner” section of each lesson, answer the questions at the end of that section, and then do the activity in the  box (the worksheets will be provided by your teacher).

3rd–5th grade

Skip the “Beginner” section and read the regular part of the lesson. After you read the lesson, do the activity in the  box and test your understanding by answering the questions in the  box.

6th–8th grade

Skip the “Beginner” section and read the regular part of the lesson. After you read the lesson, do the activity in the  box and test your understanding by answering the questions in the  box. Also do the “Challenge” section in the  box. This part of the lesson will challenge you to go beyond just elementary knowledge and do more advanced activities and learn additional interesting information.

Everyone should read the Special Features and do the final project. There are also unit quizzes and a final test to take.

Throughout this book you will see special icons like the one to the right. These icons tell you how the information in the lessons fit into the Seven C's of History: Creation, Corruption, Catastrophe, Confusion, Christ, Cross, Consummation. Your teacher will explain these to you.

Let's get started learning about God's design of our amazing earth!



UNIT

1

ORIGINS & GLACIERS

- ◇ **Describe** the origin of the earth.
- ◇ **Identify** unique features that make life on earth possible.
- ◇ **Compare** the biblical history of the world to the naturalistic history.
- ◇ **Describe** the problems with radiometric dating.
- ◇ **Describe** the formation and movement of glaciers.

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KEY CONCEPTS | UNIT LESSONS

INTRODUCTION TO EARTH SCIENCE

The study of our world

LESSON

1



What does earth science include and why should we study it?

Words to know:

astronomy
meteorology
geology
lithosphere
hydrology
first law of thermodynamics
second law of thermodynamics

Challenge words:

evolution

BEGINNERS

We all live on a planet called *earth*, and you are about to begin a study of earth science, which is learning about the planet earth. There are many questions we can ask about the earth. Where do rocks come from? How is a cave formed? What makes a volcano erupt? We will learn the answers to these questions and many other things as we study about the earth.

The most important thing you can know about the earth is that God created it. In the Bible, in Genesis 1:1 it says, "In the beginning God created the heavens and the earth." The Bible tells us that God created the sun, moon, stars, sky, dry land, and every kind of plant and animal. So as you learn about the earth, look for things that God made. You will find that He created a really wonderful place for us to live.

- **What is earth science?**
- **Where did the earth come from?**
- **What other things did God create?**



We all know where the earth is—it's all around us, right? We all know what it is—it's the planet we live on. Yet even though we are familiar with the planet we call earth and we see it every day, there are many questions that you may have about the earth. Where do rocks come from? How is a cave formed? What makes a volcano erupt? Why does it rain? How far away are the stars? Where did the universe come from? Earth science is the study of our world, and through this study scientists have attempted to answer many questions that people ask about the earth. Science has been able to answer some of these questions better than others.

Scientists break the study of the earth into four general categories. First, there is **astronomy**, the study of the space in which the earth exists. Second, there is **meteorology**, the study of the atmosphere surrounding the planet. Then there is **geology**, the study of the **lithosphere**, or the actual solid earth itself. Finally, there is **hydrology**, the study of the water on the earth. All of these studies help us to understand the wonderful world God has created for us to live on.

Although studying each of these areas will help you understand and appreciate the world on which you live, science can never answer all of your questions about the earth. We have to trust God's Word to answer some of our questions. For



THE EARTH IS RELIABLE

God created the earth with reliable laws in place. As we study earth science, we can see these laws at work. Of the many physical laws at work on earth, there are two that are particularly important to understand God's plan for the earth. The first, called the **first law of thermodynamics**, says that matter cannot be created or destroyed, only changed in form. This means that the things we see on the earth had to have come from something already existing. Only God can create something from nothing.

Another important physical law, the **second law of thermodynamics**, states that all objects tend to go to a state of rest or disorganization, called entropy. That means that the universe is gradually slowing down and everything is losing energy.

Purpose: To demonstrate the principle of increasing entropy

Materials: tennis ball, string, tape

Procedure:

1. Take a tennis ball and hold it in one hand. Hold your arm straight out in front of you and release the ball onto a hard surface. What does the ball do?
2. Now make a pendulum by taking a string and tying one end around the ball.
3. Use masking tape to tape the other end of the string to the top of a doorway so that the ball hangs at about the same height as your chin.
4. Take one step back from the doorway and gently pull the ball up until it just touches the tip of your nose. Then release it without pushing it. Be sure to

stand very still. Did the ball hit you on the nose?

Conclusion:

After you dropped the ball, it bounced a few times and eventually came to rest on the floor as it lost its kinetic energy. The ball on the pendulum swung out and back without actually touching you. This is because the ball is losing energy as it swings through the air; eventually it will stop.

We observe these same principles at work on a large scale when we study planets and galaxies, and on a tiny scale when we study molecules and atoms. The Bible says that God created the universe and upholds it by His power (Hebrews 1:3; Colossians 1:17). He designed our world in an orderly way, and we can trust Him to take care of it and us.

instance, science cannot prove where the earth came from. There are many ideas or theories that we will examine, but none of them scientifically proves where the earth came from. Only the Bible can answer that question. Genesis 1:1–2 says “In the beginning God created the heavens and the earth. The earth was without form, and void; and darkness was on the face of the deep. And the Spirit of God was hovering over the face of the waters.” The Bible tells us that God created the sun, moon, stars, sky, dry land, and every kind of plant and animal. Since no man was there and scientists cannot recreate the beginning of the world, we must trust God’s Word to tell us what happened.

As you study earth science, you will find God’s mighty hand all around you. Romans 1:19–20 says, “what may be known of God is manifest in them [men], for God has shown it to them. For since the creation of the world His invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead, so that they are without excuse.” So look for evidence of God in the world around you. You won’t be disappointed. ■

WHAT DID WE LEARN?

- What are the four main studies of earth science?
- What is one question mentioned in this lesson that science cannot answer about the earth?
- Why can we rely on God’s Word to tell us where the earth came from?

TAKING IT FURTHER

- How does the first law of thermodynamics confirm the Genesis account of creation?
- How does the second law of thermodynamics confirm the Genesis account of creation?
- Read Psalm 139:8–10. What do these verses say about where we can find God?



IS EVOLUTION SCIENTIFIC?

As you begin to study earth science, you will find that most of the books, magazines, and videos that you get from the public library or from a public school classroom state that the earth and the universe are billions of years old, that life evolved from nonlife, and that there is no power at work in nature except the natural things that we see and can test. These ideas are all part of a worldview called **evolution**. But these

evolutionary ideas do not fit with the Word of God. The Bible clearly says that God created the earth, the universe, and all forms of life. It says that God created everything from nothing and that He did it in six days, and then rested on the seventh day. And the Bible indicates that this all took place only a few thousand years ago.

So what are we to believe? First, let’s read some quotes from

some evolutionists and look at what they have to say about the situation. After reading each quote below, write a summary of what that person is saying about his belief in evolution.

Professor Richard Lewontin is a geneticist and one of the world’s leaders in evolutionary biology.

“We take the side of science *in spite of* the patent absurdity of some of its constructs, *in spite*

of its failure to fulfill many of its extravagant promises of health and life, *in spite of* the tolerance of the scientific community for unsubstantiated just-so stories, because we have a prior commitment, a commitment to materialism. It is not that the methods and institutions of science somehow compel us to accept a material explanation of the phenomenal world, but, on the contrary, that we are forced by our *a priori* adherence to material causes to create an apparatus of investigation and a set of concepts that produce material explanations, no matter how counter-intuitive, no matter how mystifying to the uninitiated. Moreover, that materialism is an absolute, for we cannot allow a Divine Foot in the door.”¹

Aldous Huxley was a British novelist who wrote *Brave New World* (1932). He came from a family of evolutionists. Below is a quote explaining his view of life.

“I had motive for not wanting the world to have a meaning; consequently assumed that it had none, and was able without any difficulty to find satisfying reasons for this assumption. The philosopher who finds no meaning in the world is not concerned exclusively with a problem in pure metaphysics, he is also concerned to prove that there is no valid reason why he personally should not do as he wants to do, or why his friends should not seize political power and govern

in the way that they find most advantageous to themselves. . . . For myself, the philosophy of meaninglessness was essentially an instrument of liberation, sexual and political.”²

Geoffrey Burbidge is a renowned astrophysicist and had the following to say about the big bang theory.

“Big bang cosmology is probably as widely believed as has been any theory of the universe in the history of Western civilization.

It rests, however, on many untested, and in some cases untestable, assumptions. Indeed, big bang cosmology has become a bandwagon of thought that reflects faith as much as objective truth.”³

This final quote is from Michael Ruse who was a professor of philosophy and zoology at the University of Geulph in Canada. What is he saying about evolution?

“Evolution is promoted by its practitioners as more than mere science. Evolution is promulgated as an ideology, a secular religion—a full-fledged alternative to Christianity, with meaning and morality. I am an ardent evolutionist and an ex-Christian, but I must admit that in this one complaint—and Mr [*sic*] Gish is but one of many to make it—the literalists are absolutely right. Evolution is a religion. This was true of evolution in the beginning, and it is true of evolution still today.

“. . . Evolution therefore came into being as a kind of secular ideology, an explicit substitute for Christianity.”⁴

Are you surprised by what these men had to say? Richard Lewontin is saying that scientists must believe in materialism to keep the Divine Foot, or God, from entering the picture. He says that there are many unsubstantiated stories and that the evidence does not necessarily compel scientists to believe in evolution.

Huxley is saying that he assumed the world has no meaning, so that he could develop a world where he could do whatever he wanted. This is the result of evolutionary thinking. If there is no God, then there is no reason not to do whatever you want. You will see a strict adherence to evolution in many people’s writings because it provides a world with no meaning and thus no moral restrictions.

What Dr. Burbidge is saying is that the belief in the big bang is exactly that, a belief. There are many assumptions being used to “prove” the big bang that cannot be tested, and really don’t prove anything.

Finally, Dr. Ruse is openly admitting that evolution is a religion that can be substituted for Christianity. Keep these ideas in mind when you read books that promote evolution as true. Often the things evolutionists claim to be facts are really only assumptions that are required to support the religion of evolution.

¹ Richard Lewontin, “Billions and Billions of Demons,” *The New York Review*, January 9, 1997, p. 31.

² Aldous Huxley, *Ends and Means* (New York: Harper, 1937), pp. 270 ff.

³ Geoffrey Burbidge, “Why Only One Big Bang?” *Scientific American* 266 no. 2 (1992): 96.

⁴ Michael Ruse, “How Evolution Became a Religion,” *National Post*, May 13, 2000.