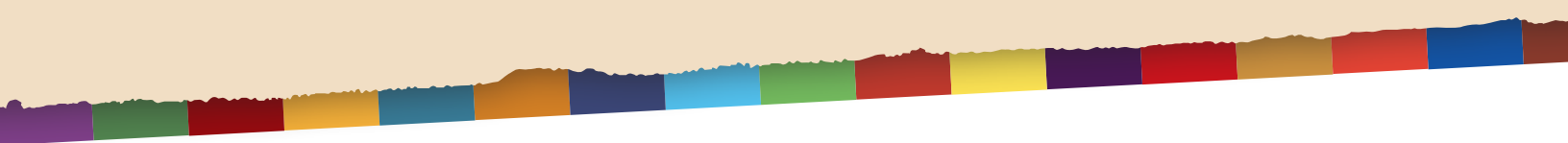


GOD MADE ME



Science/Worldview | Level 3

Author: Tamela Sechrist

Editors: Joshua Schwisow and R.A. Sheats

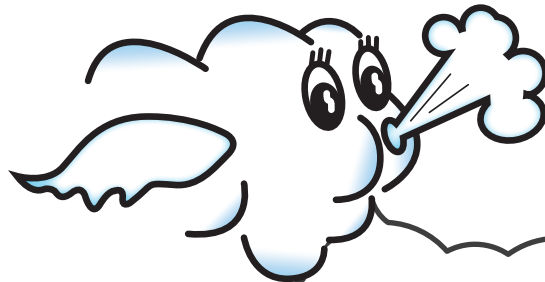


GOD MADE ME



Hi! I'm Thump the Pump, also known as your heart! God gave me an important job to do inside your body. I do my job without ever stopping, for as long as you live.

Your body is something that's always with you to show you that God is amazing!



And I'm Puff, a puff of air! Air is wonderful. I like blowing it around where God wants it to go. When you see me in this book, you can remember that God made you and gives you the Breath of Life!

Table of Contents

Introduction	1
--------------------	---



Chapter 1

God Made You the Way You Are.....	17
-----------------------------------	----



Chapter 2

God Used DNA to Make You.....	25
-------------------------------	----



Chapter 3

God Knitted You Together.....	33
-------------------------------	----



Chapter 4

A Time to Be Born.....	45
------------------------	----



Chapter 5

God Gave You Blood	55
--------------------------	----



Chapter 6
God Gave You a Pump..... 63



Chapter 7
God Gives You the Breath of Life 71



Chapter 8
Take a Trip with a Blood Cell 81



Chapter 9
Your Brain Is Amazing..... 91



Chapter 10
Your Nervous System 99



Chapter 11
Your Neurons..... 107



Chapter 12
Your Nervous System Works Automatically and on Purpose..... 115



Chapter 13
God Gives You Eyesight 127



Chapter 14

God Gives You the Sense of Touch..... 141



Chapter 15

God Gives You Hearing..... 153



Chapter 16

God Gives You Taste, Smell, and Other Senses 163



Chapter 17

What is Food? 179



Chapter 18

To Your Stomach..... 191



Chapter 19

Absorbing in Your Abdomen 201



Chapter 20

Your Large Intestine Finishes Digestion 211



Chapter 21

Your Kidneys Clean Your Blood..... 225



Chapter 22
Your Bladder and Its Tubes 233



Chapter 23
Your Body Has Many Parts That Purify..... 239



Chapter 24
God Purifies Your Cells..... 247



Chapter 25
God Gives You Strong Bones..... 255



Chapter 26
God Gives You Structure..... 263



Chapter 27
How Muscles Work..... 273



Chapter 28
Swift, Strong, Careful Movement..... 281



Chapter 29
God Heals Your Wounds..... 291



Chapter 30

Healing: Making Things New Again 297



Chapter 31

God Can Heal Your Illnesses 305



Chapter 32

Vigilant, Valiant Germ Fighters 313



Chapter 33

God Gives You Hormones 325



Chapter 34

Pituitary, Pineal, and Thymus Glands, Keeping Your Body on Schedule 331



Chapter 35

Thyroid, Parathyroid, and Pancreas Glands, Keeping You Diligent 337



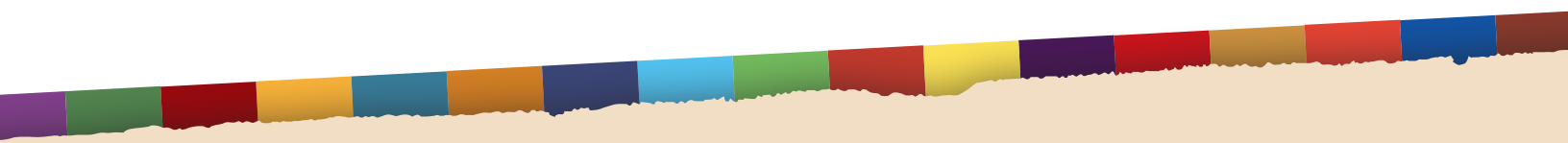
Chapter 36

Hormones for Hard Times..... 343

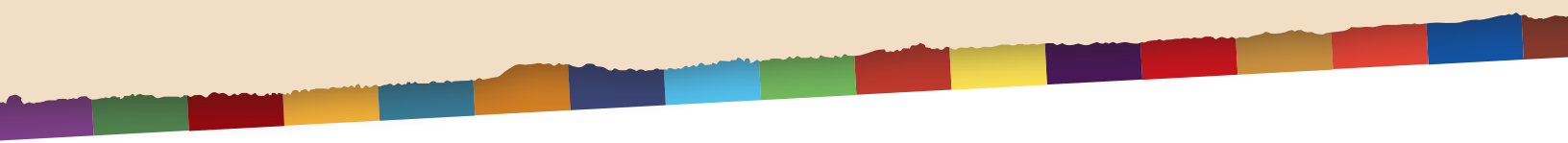
Glossary..... 349

Image Credits..... 355





Introduction



... what may be known of God is manifest in them, for God has shown it to them. For since the creation of the world [God's] invisible attributes are clearly seen, being understood by the things that are made, even His eternal power and Godhead ... (Romans 1:19-20)

Understanding God's creation helps us all understand God's attributes. (Romans 1:19-20) This science course for middle to upper elementary children is designed to bring to light the wisdom, power, and love of God that is evident in His creation. *God Made Me* presents the amazing way that the human body is wonderfully designed so every part works together in harmony. When God made mankind in His image, He made each structure and process to proclaim His glory with its intricacies, from the smallest organelle in a cell to the largest parts, such as the arms and legs.

Thump, the hard-working heart, and Puff, representing the breath of life, appear often in the course to add interesting facts or encourage praise for God's creation of the human body.

God Made Me is designed to be easy to understand and engaging for children. Kids learn in a variety of ways, and this course, with its companion activity book, provides several modes of instruction.

- **Reading:** The textbook is designed at a reading level appropriate for middle elementary students. Acknowledging that the study of the human body involves learning many new vocabulary words and focusing on multi-step processes, the text is kept at a simple level. This will enable the student to concentrate more on the science

concept than on sorting out lengthy sentences or potentially unfamiliar non-science words. Fun analogies are sometimes used to help explain the way things work.

- **Seeing:** Beautiful pictures and fascinating illustrations are abundantly used to keep the attention of children. Diagrams matching the text concepts are used to reinforce learning.
- **Moving:** The *God Made Me* companion activity book is designed to add a variety of fun, physical activities that are not overly burdensome to the parent/teacher. Here, science topics are reinforced with a balance of observation, experiments, exercise, art, Scripture, cooking, and games. Occasional review exercises are provided as a way for the parent/teacher to check retention. Each activity corresponds to a section of the textbook and is numbered for easy reference.

How To Use *God Made Me*

God Made Me is divided into nine units of four chapters each. Each unit begins with a memory verse and hymn that the child will have a chance to work on in the activity book. This course contains 36 weeks of lessons with one chapter to be read each week. Each week's reading and companion activities are divided into three days.

Children learn best in small doses with time to internalize in between. New concepts are solidified as they play and are made permanent as they sleep. Because of this, the following weekly schedule is suggested:

- **Day 1** — Read the first section of the textbook chapter. Complete the corresponding activity in the activity book (as announced at the end of that section of text).
- **Day 2** — Break
- **Day 3** — Read the second section of the textbook chapter. Complete its corresponding activity in the activity book.
- **Day 4** — Break
- **Day 5** — Read the third section of the textbook chapter and complete its corresponding activity.

May God be glorified, and may you be richly blessed as you and your student study the pinnacle of God's material creation, the human body!

Tamela Sechrist
The Generations Curriculum Team
April 2024

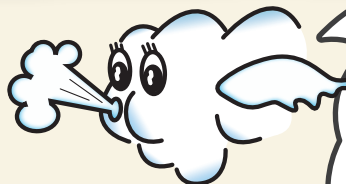




UNIT 1

God Made You on Purpose

God planned for you to exist before you even began to be! Our memory verse and hymn remind us that God made you on purpose!



Your family met you when you were born. But your life began months earlier inside your mother, before she even knew you were there. And way before that, God knew you.



Memory Verse

Before I formed you in the womb I knew you. (Jeremiah 1:5)



Hymn to Sing: Let All Things Now Living

Let all things now living a song of thanksgiving
To God the Creator triumphantly raise.
Who fashioned and made us, protected and stayed us,
Who still guides us on to the end of our days.
God's banners are o'er us, His light goes before us,
A pillar of fire shining forth in the night.
Till shadows have vanished and darkness is banished
As forward we travel from light into light.

His law He enforces, the stars in their courses
And sun in its orbit obediently shine;
The hills and the mountains, the rivers and fountains,
The deeps of the ocean proclaim him divine.
We too should be voicing our love and rejoicing:
With glad adoration a song let us raise
Till all things now living unite in thanksgiving:
"To God in the highest, Hosanna and praise!"

You can listen to this hymn by searching for "Let All Things Now Living children's choir" on the internet.

"Let All Things Now Living" hymn text by Katherine K Davis © Copyright 1939, 1966 by E. C. Schirmer Music Company, Inc., a division of ECS Publishing Group. All rights reserved. Used with permission.



God made each
person unique.

CHAPTER 1

God Made You the Way You Are

And the LORD God formed man of the dust of the ground and breathed into his nostrils the breath of life; and man became a living being. (Genesis 2:7)

You are Unique

God made people in a different way than He made animals. God breathed life into the man's nostrils with His own breath! The man's body became alive. God formed the first woman out of one of the man's rib bones. He gave life to her too. Even though God uses a different way to form peoples' bodies now, He still gives life to each person.

God made people so they would be different than the animals. He made people **unique** in these ways:

- We are made in God's image.
- We can know the difference between right and wrong.
- God gives us each a soul that will live forever.
- We can talk, sing, and praise God.

- We can create, invent, and think about complicated things.
- We can know and love God!

[God] teaches us more than the beasts of the earth, And makes us wiser than the birds of heaven. (Job 35:11)

Definitions

If something is not like anything else, we say it's **unique** (you-neek).

A **womb** (woom) is the special place inside a mother where God makes a baby grow before it's born. We say the mother is **pregnant** when there is a baby growing in her womb.



Before I formed you in the womb I knew you. (Jeremiah 1:5)



Here's our
memory verse
again!

Our memory verse shows us that God knows each person **before** they even start to grow inside their mother. He knew you before you started to grow too! God knew just how He would make you look. He knew what color of eyes He would give you and whether you would be a boy or a girl. Are you good at drawing and math? Or are you so observant that you usually know where your little sister left her favorite blanket? God planned for you to be good at certain things.

God made you a unique person! There has never been anyone exactly like you. Find someone nearby and ask to see their left pointer finger. Now look at your own

left pointer finger. Do they look the same? That's a tricky question because in many ways they do look the same. God gave fingers special jobs to do. That's why He gave everybody's left pointer fingers the same **structure** (the way it's put together) to do its **function** (job).

At the same time, there are small differences between the same structures on different people. Look at the left pointer fingers on the two of you again. Do you see a difference in the shape of the fingernails? Do the knuckles wrinkle differently? Can one of you "pop" your knuckle?

Even if you have an identical twin and your hands look the same, your fingertips will still look different. The tiny swirls on the skin of fingertips are formed by the different ways babies touch things when they are in their mother's womb. Your fingertip swirls are not like anyone else's! They are unique.



Before you were created, God chose who your mother would be. Then He put you in your mother's **womb**.

All babies are special to God, even before He puts them in their mothers' wombs.



Even twins
have unique
fingertip swirls.



Time to do Activity 1 in the Activity Book!

You Came with Instructions

The first man was named Adam, and the first woman was Eve. When God made Adam and Eve, He put instructions inside their bodies. These instructions would tell their bodies how to automatically do what was needed for them to live.

After God made Adam and Eve, He wanted to put more people on Earth. These people would be formed in a different way than Adam and Eve had been. But they would need instructions inside their bodies too. God would give them (and all the people coming after them)

instructions too.

What do these instructions do? These instructions tell your body how to work and how to grow. They might tell your body how to function, like when your heart needs to beat or when it's time for your body to stop growing. Others might give your body its structure by telling it how to



You never should laugh at someone because they look differently than you. God specially made each person. Let's not make fun of someone God created!



make your hair and whether to make it curly or straight. The instructions for millions of things were inside you when you were too tiny to be seen. But God put them there to make you exactly who He wanted you to be, with all your parts working well!

From the very first, your instructions said you would be a **human being**. You don't have to worry that you will ever grow antlers on your head or have pinecones instead of toes. Your set of instructions doesn't include antlers or pinecones. God gave you human instructions.



Time to do Activity 2 in the Activity Book!

Zoom in to the Cell: The Home of Your Instructions

As we learn about your human body in this book, we will take a moment now and then to zoom in to the cell.

Microscopes help us see very small things.

People use magnifying glasses and hand lenses to make small things look bigger. But some things are too small to see even with a magnifying glass. To see very small things, people use microscopes.

Cells can't be seen with a magnifying glass, but you can see them with a microscope. To learn about cells, we will look at pictures and drawings that have been made using microscopes.

If you have a doll or an action figure, you can see that it has different parts. But each part is probably made of plastic. Some parts might be hard and some soft. Or the parts might be different colors. But if you look at the parts with a microscope, you will just see plastic.



All of your cells contain DNA except for certain cells in your blood. These blood cells start with DNA where they are made. But by the time they are old enough to jump into your blood, their DNA (and their nuclei) have disappeared!



You are not made of plastic! If you look at your skin with a microscope, you will see that it's made of tiny structures attached to each other. If you look at your blood, you will see other tiny structures floating in liquid. If you are about eight to ten years old, your body is made of about 17 trillion of these tiny structures. They are called **cells**.

Let's look inside a cell now. Almost every cell in your body contains a copy of **all** your unique instructions. Even one cell in your tongue contains toenail-making instructions! Every cell also says that God made you human and tells you whether you are a girl or a boy.

Your skin loses about five dead cells every second. Each skin cell that lands in your bed, on your clothes, or in the dust you clean off the floor contains a copy of all the instructions about you!*

*When we look at dead skin cells with a microscope, we can't see any nuclei in them. Nuclei are the parts in cells that contain instructions. People used to think that dead skin cells didn't have nuclei and therefore couldn't have DNA (instructions). Now we know that when skin cells die, the nuclei are destroyed. But the DNA still exists in the cell.

Cells are kind of like little creatures. They are alive, they take in nutrition, they get rid of waste, and they have different



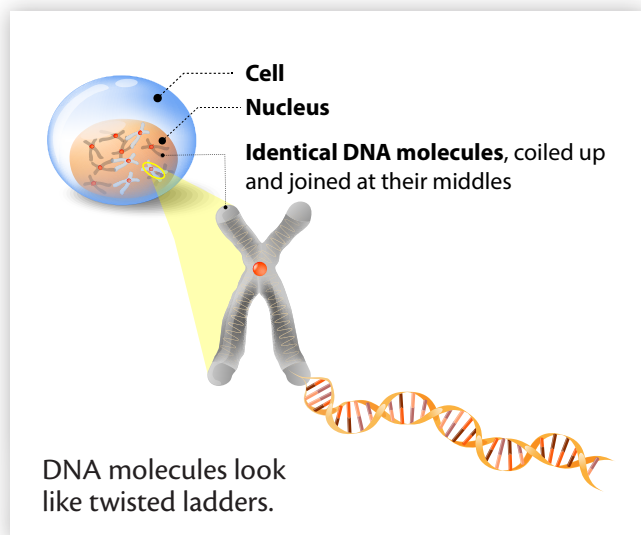
Definitions

A **cell** is the smallest living part of your body. Your body is made of various kinds of cells.

A cell's **nucleus** (noo-klee-us) is like the brain of the cell. The nucleus tells the cell what to do at the right time. It contains the DNA instructions. When we talk about more than one nucleus, we say **nuclei** (noo-klee-eye).

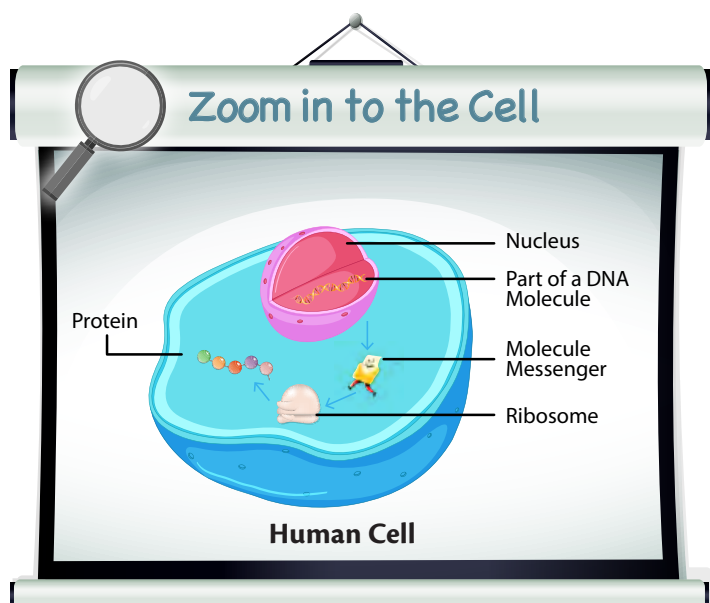
DNA is a large **molecule** that contains the instructions for your body.

A **molecule** is the smallest piece of something that still is that thing. The smallest piece of water is a molecule. If you broke a water molecule, it would break into smaller things that wouldn't act like water anymore.



parts with different jobs. One part of the cell is the **nucleus**. The nucleus is like the cell's brain. It controls the cell by using its own copy of your instructions. The nucleus is where your instructions live most of the time.

Everything God created is made of **molecules** (mall-uh-kules). Even cells are made of molecules. Molecules are usually



too small to see, even with a microscope.

The set of instructions in the nucleus of a cell is a set of molecules. Each of your cells has 46 instruction molecules. These instructions have a very long name: deoxyribonucleic acid. But we'll just use initials and call it **DNA**.

DNA molecules are very long. They need to be long so they can contain all your body's instructions. If you could hold up one of your 46 DNA molecules from one of your cells, it would stretch all the way from your head to your toes! These instructions need to be wound up like thread on spools when it's time for the cell to organize them.

Proteins are large molecules that have important jobs to do in your body. DNA tells cells how to make many **proteins**. Let's look at how DNA does this.

First, God has given your DNA the ability to know **when** proteins need to be made. Let's pretend you ate a lot of candy all at once. When you eat sweets, the sugar goes into your blood. But too much sugar in your blood can damage parts of your body. Your body has special cells that make a certain protein to take the extra sugar out of your blood and store it for another time. The DNA in these special cells knows when it's time to make more of the protein that takes extra sugar out of your blood.

Now, when it is time to make a protein, the DNA unwinds a section of itself a little so that the right instructions for that protein can be "seen." Then the DNA makes itself some little molecule messengers



Death cap mushroom

to “see” this part of the instructions. Each messenger then leaves the nucleus and takes its message to one of the many **ribosomes** (rye-buh-sohms) in the cell’s liquid. Ribosomes use these messages to find the right ingredients floating around in the cell. They grab the ingredients and make the protein according to the instructions.

The death cap mushroom is a very poisonous mushroom. It first grew above the roots of trees only in Europe. But now it has spread around the world by traveling on the roots of trees that people

buy and transplant in their area. These mushrooms pop up in late summer and autumn in wild areas and lawns. Eating just one death cap mushroom can kill a healthy adult. Its poison is deadly because it gets into cells and prevents DNA from making molecule messengers. Without the messengers, proteins can’t be made. This can be dangerous!

Thump’s Health Hint

If you find a mushroom, don’t eat it! Not very many people can tell the difference between edible and poisonous wild mushrooms. It’s best not to even touch wild mushrooms. If you touch one and then forget to wash your hands before touching your mouth, you could get very sick.



Prayer

God, thank You for making me the way I am. Thank You for making every person unique. You are so wise to make DNA instructions in each cell. They automatically control everything in my body to keep it working well. Thank You! Amen.



Time to do Activity 3 in the Activity Book!

