let's talk science

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#### **Course Description**

Approximately 20 minutes per lesson, three times per week Designed for first graders in a one-year course

*Let's Talk Science: Adventures in Creation* will bring the Bible to life and instill in your child a love for science as they explore the world around them. Students will embark on an adventure through the days of creation as they discover that science is a wonderful tool God has given us to study His creation — and learn more about Him!

Through hands-on investigations and biblically inspired stories, students will experience, ask questions, and explore God's world through science. Students will use their imaginations to join Adam and Eve as they teach their children about God's creation, learn about the amazing things and creatures God created on each day of creation, engage in experiments and activities to bring learning to life, and compile a Science Notebook to share what they've learned about God and His world with others.

#### **Course Objectives**

Students completing this course will:

- Learn that the study of science starts with the Bible
- Explore the days of creation and learn about the amazing things God designed on each day
- Discover that science teaches many lessons about God and about our relationship with Him
- Develop a love for science through hands-on exploration and experimentation
- Compile a Science Notebook as they document their discoveries and share what they've learned with others

#### **Course Overview**

Lessons follow a weekly pattern of:



Day 1: Learn about the topic

Day 2: Experience the topic through experiments, investigations, or hands-on activities



Day 3: Share what they've learned with others as they add a new page to their Science Notebook

#### A note from the author

Welcome to *Let's Talk Science: Adventures in Creation!* If your child is anything like my children, he or she asks many, many questions each day. Who made the world? How are clouds made? How do fish breathe? Why does it rain? Each question sparked by curiosity becomes an amazing opportunity to learn, discover, and explore.

It may surprise you to learn that science wasn't my favorite subject as a child. I found it to be a series of dry facts that I couldn't relate to. However, as my sons and I have sought answers to their questions, science has become our favorite subject. Each question presents an opportunity to explore God's designs in creation and to learn more about who He is.

Science is an amazing tool God has given us to learn about and explore the world He created. When we study God's creation through science, we see His creativity, organization, grace, and majesty on display. Of course, sometimes science also reminds us that the world was broken through sin, and there we find His mercy and a reminder that we all need Jesus.

This course is inspired by the questions my sons have asked and the adventures we've had as we've answered those questions. *Let's Talk Science: Adventures in Creation* is designed to be interactive, hands-on, easy to prepare for, and a lot of fun. This course is also designed to encourage curiosity. If your child is particularly interested in a topic or question, I invite you to spend some time exploring God's world together through books, videos, and resources. Make this course your own and have fun!

When my sons started school, each picked out a special 3-ring binder to hold their completed worksheets. One night after dinner, they excitedly brought out their binders to show Dad all the things they had learned that day. This quickly became a favorite part of our nightly routine and is the inspiration behind the student's Science Notebook in this course. Encourage your student to pick out their own binder or decorate it. It will be a very special part of their science adventure.

It is my prayer that as your child completes this course, they will discover a love for the amazing world of science and that what they learn draws their hearts closer to their Creator.



#### **Course Components**



**Imagine That!:** Lessons periodically feature a fictional, Bibleinspired story. In Adventures in Creation, these conversational stories help your child imagine what it may have been like as Adam and Eve taught their children, Cain and Abel, all about God's creation. These stories also feature many simple words. If your student is reading, or learning to read, ask them to help you read this section.

Discussion Starters **Discussion Starters:** Discussion Starters at the end of the lesson provide additional questions, activities, or ideas to dive deeper into the topic. Questions for the student are included in speech bubbles. Additional activity ideas or tips are in orange text.



**Let's Memorize:** Many lessons feature a memory verse with accompanying hand motions. Hand motions are a great way to help your student memorize the verse! You may also customize or create your own motions.

**Science Notebook:** The student will compile a Science Notebook as he or she completes the course. Each week, the student will tear out the activity page on Day 3 and add that page to his or her Science Notebook to document what he or she learned. These pages are designated by a "Tear out for Science Notebook" note on the right-hand side of the page. Encourage your student to show someone else the page and share what he or she has learned during the week.



**Materials List:** Weekly hands-on activities are integral to this course. A Master Materials List (page 8) provides an at-a-glance view of the materials your student will need to complete the activities for each week. The activities are designed to be easy to prepare for, and most require materials you may already have on hand.

At the start of each week's lessons you'll find the Weekly Materials List included in the lesson. These are the materials you'll need to have on hand to complete activities and worksheets for the week.

The Materials Needed list shows the materials you'll need to complete that individual lesson.

#### **Recomended Resources from Master Books®:**

When You See a Rainbow

Aquarium Guide

Created Cosmos (DVD)



#### **Helpful Tips**

- Teacher tips and instructions are included in orange text.
- Some activities require cutting out components with scissors. As cutting abilities can vary greatly at this age, either the teacher or the student may cut these out.
- It is recommended to look through the Master Materials List before beginning this course and purchase any less common materials (such as a glass prism and/or magnifying glass) that are not already on hand.
- Your student may enjoy going shopping to pick out a special 3-ring binder for their Science Notebook.
- Lessons may inspire your student to ask additional questions or spark a desire to explore a topic deeper. Have fun researching together to find the answer, or spend some time on an off day exploring a topic in greater detail.
- This course is designed to be interactive with your student. Be sure to take time to pause after questions in the text and explore the topic with your student.
- If your student is reading or learning to read, encourage him or her to help you read the biblically inspired stories. The stories feature many short, simple words for emergent readers. As you read the stories together, point out words your student can read.

#### **Master Materials List**

#### Week I

- 3-ring binder for student's Science Notebook
- Small rock or pebble, non-porous so it will sink in water
- Container of water to drop the rock into
  - Crayons or colored pencils

#### Week 2

Flashlight

#### Week 3

- White sheet of paper
- Glass prism (A glass prism will create a more vibrant rainbow and is recommended; however, an acrylic prism may also be used.)
- Light source natural light outside or through a window is best, but a flashlight will also work.

#### Week 4

- Flashlight
- Tissue paper or cellophane in colors: red, orange, yellow, green, and blue
- Rubber bands (Optional, to hold tissue paper/cellophane in place on the flashlight. You can also simply use your hand.)
  - Crayons, markers, or colored pencils

#### Week 5

Option A (recommended) — Outdoor Rainbow

- Garden hose with nozzle that allows mist
- Water source for hose
- 🗌 Sunny day
  - ] Optional: Paper, crayons, and surface to draw on

Option B — Indoor Rainbow

Drinking glass, smooth glass is the best

] Water

- White sheet of paper
- Flashlight
- DVD or CD

#### Week 6

Crayons

#### Week 7

- Glue stick
- Crayons, colored pencils, or markers
- Scissors

#### Week 8

- Glass cup
- Water
- Ice cubes
- Second small cup or bowl of water
- Paintbrush (or child's fingers will work)
- Dark-colored construction paper

#### Week 9

- Mason jar (recommended) or tall glass
- Lid for mason jar (recommended) or small saucer to cover glass
- Hot water (Hot tap water will do. If you do not see a cloud form, you may also run water through a coffee maker. Remind young children to be careful and not touch.)
- Aerosol spray (hairspray works well)
- 2–6 ice cubes
- ☐ Elmer's glue®
- Glue stick
- Cotton balls

Week IO	Week IG
Mason jar or large glass cup	Flour
Shaving cream	Cheetos <sup>®</sup>
Blue food coloring	🗌 Cocoa powder
Water	Light, fuzzy winter gloves
Small bowl	3 pieces of construction paper
Dropper or spoon	Crayons or markers
Plastic bag or a flat plate (to protect surface)	Pom-poms
	Elmer's glue®
Week II	
Balloon	Week 17
Fork	Apple
Fleece (optional)	Cutting board
	Sharp knife — adult only!
Week I2	
Crayons, colored pencils, or markers	Week 18
	Paper plate
Week I3	Red, orange, and yellow tissue paper
Playdough in 4 colors	or construction paper, cut or torn into
🗌 Butter knife	Character
Glue stick	
Scissors	Wook 19
	Paper plate sup from week 18
Week 14	$\square$ String or varn $4-5$ feet long
Stalks of celery, with leaves	Elmer's glue <sup>®</sup>
🔲 Glass jar	
Food coloring	
Water	
Week IS	
Magnifying glass	
Various leaves from outside. May also	
use spinach or leaves from grocery store flowers.	
Paper	

Crayons

#### Week 20

Flour or playdough

- Container
- Small objects such as pebbles or marbles to drop into the flour or playdough
- ☐ White paint

Black construction paper

- Cotton ball
- Pencil
- Optional: Clothespin for less mess. Use the clothespin to hold the cotton ball, and the student can hold onto the top of the clothespin.
- ☐ Hole punch

#### Week 2I

Option A:

☐ Oreos<sup>™</sup>

Option B:

Flashlight

Ball, such as a tennis or soccer ball

#### Week 22

6 popsicle sticks
-------------------

🗌 Glue

String or yarn

Optional: Silver or gold glitter

#### Week 23

Cardstock or index card

- Pushpin or pencil
- Flashlight

#### Week 24

- Magnifying glass
- Feathers (can be purchased at a craft store or gathered from the yard)
- Velcro (can be on an article of clothing or a shoe)
- ☐ Elmer's glue®

#### Week 25

Option A:

Toilet paper or paper towel cardboard roll,
or a pinecone

Peanut butter

Birdseed
----------

Yarn or twine

] Plate

Option B:

- □ Needle and thread
- Unbuttered, unsalted popcorn
- Apples and oranges, cut into pieces

🗌 Berries, i	f desired
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#### Week 26

Yarn or twine
] Cotton balls
] Large container for student to build a nest
Dried grass, twigs, etc., that the student has gathered from outside
] Glue stick
] Scissors

Week 27	Week 31
Mason jar or big glass container	Container to hold habitat
Glass container for mixing	Animal toys belonging to one habitat your
Funnels	student chooses: arctic, rain forest, forest,
Syringe (one from a child's liquid medicine will work well)	Materials to build a habitat for the toys
Corn syrup	(e.g., ice for arctic, said for desert, etc.)
Water	Week 22
☐ Vegetable oil	
Blue food coloring	I wo straws
Dark blue dish soap	Tape or rubber bands
Rubbing alcohol	2 paper bags or gallon-sized Ziploc <sup>®</sup> bags
<ul> <li>1/2 or 1/4 measuring cup, depending on the size of your jar</li> </ul>	Week 33
Week 28	Straw
Sink or bathtub full of water	Playdough
🗌 Fork	U Water
Spoon	
Construction paper	Week 34
Scissors	Balloon
Elmer's glue <sup>®</sup> or glue stick	🗌 Ink pad
Crayons or markers	Picture of student
Glitter (optional)	Glue Sticks
Week 29	Week 35
☐ Clear 1-liter soda bottle	☐ Ice cube made from fruit juice
Glow stick bracelet or glow in the dark paint	Plate
Construction paper	
Permanent marker	Week 36
 □ Scissors	Scissors
Tape	Glue stick
Week 30	

Scissors

Glue stick

		Schedule		
Date	Day	Assignment	Due Date	$\checkmark$
	Day	Read and complete Day 1 • How We Study Science • Pages 17–21		
Week I	Day	Read and complete Day 2 • How We Study Science • Pages 22–24		
	Day	Read and complete Day 3 • How We Study Science • Pages 25–26		
	Day	Read and complete Day 1 • The First Day of Creation • Pages 27–29		
Week 2	Day	Read and complete Day 2 • The First Day of Creation • Pages 30–32		
	Day	Read and complete Day 3 • The First Day of Creation • Pages 33-34		
	Day	Read and complete Day 1 • Light Is Made of Colors • Pages 35–37		
Week 3	Day	Read and complete Day 2 • Light Is Made of Colors • Pages 38–40		
	Day	Read and complete Day 3 • Light Is Made of Colors • Pages 41-42		
	Day	Read and complete Day 1 • Light Waves • Pages 43-46		
Week 4	Day	Read and complete Day 2 • Light Waves • Pages 47–48		
	Day	Read and complete Day 3 • Light Waves • Pages 49–50		
	Day	Read and complete Day 1 • Rainbows • Pages 51–53		
Week 5	Day	Read and complete Day 2 • Rainbows • Pages 54-56		
	Day	Read and complete Day 3 • Rainbows • Pages 57-58		
	Day	Read and complete Day 1 • The Second Day of Creation • Pages 59–62		
Week 6	Day	Read and complete Day 2 • The Second Day of Creation • Pages 63–64		
	Day	Read and complete Day 3 • The Second Day of Creation • Pages 65–66		
	Day	Read and complete Day 1 • Atmosphere • Pages 67–70		
Week 7	Day	Read and complete Day 2 • Atmosphere • Pages 70–74		
	Day	Read and complete Day 3 • Atmosphere • Pages 74–76		
	Day	Read and complete Day 1 • Condensation and Evaporation • Pages 77–80		
Week 8	Day	Read and complete Day 2 • Condensation and Evaporation • Pages 80–82		
	Day	Read and complete Day 3 • Condensation and Evaporation • Pages 83–84		
	Day	Read and complete Day 1 • Clouds • Pages 85-88		
Week 9	Day	Read and complete Day 2 • Clouds • Pages 89–90		
	Day	Read and complete Day 3 • Clouds • Pages 90–91		

Schedule				
Date	Day	Assignment	Due Date	$\checkmark$
	Day	Read and complete Day 1 • The Water Cycle • Pages 93–97		
Week IO	Day	Read and complete Day 2 • The Water Cycle • Page 98		
	Day	Read and complete Day 3 • The Water Cycle • Pages 99–100		
	Day	Read and complete Day 1 • Thunderstorms • Pages 101-104		
Week II	Day	Read and complete Day 2 • Thunderstorms • Pages 105–107		
	Day	Read and complete Day 3 • Thunderstorms • Pages 108-110		
	Day	Read and complete Day 1 • The Third Day of Creation • Pages 111–114		
Week 12	Day	Read and complete Day 2 • The Third Day of Creation • Pages 115–118		
	Day	Read and complete Day 3 • The Third Day of Creation • Pages 119–120		
	Day	Read and complete Day 1 • Earth Layers • Pages 121-124		
Week I3	Day	Read and complete Day 2 • Earth Layers • Pages 125-127		
	Day	Read and complete Day 3 • Earth Layers • Pages 129–130		
	Day	Read and complete Day 1 • Plants • Pages 131–136		
Week 14	Day	Read and complete Day 2 • Plants • Pages 137-139		
	Pay	Read and complete Day 3 • Plants • Pages 140-142		
	Day	Read and complete Day 1 • Leaves and Photosynthesis • Pages 143–146		
Week 15	Day	Read and complete Day 2 • Leaves and Photosynthesis • Pages 146–148		
	Pay	Read and complete Day 3 • Leaves and Photosynthesis • Pages 149–150		
	Day	Read and complete Day 1 • Flowers and Pollination • Pages 151–155		
Week 16	Day	Read and complete Day 2 • Flowers and Pollination • Pages 156-158		
	Day	Read and complete Day 3 • Flowers and Pollination • Page 159		
	Day	Read and complete Day 1 • Seeds • Pages 161–164		
Week 17	Day	Read and complete Day 2 • Seeds • Pages 165–166		
	Day	Read and complete Day 3 • Seeds • Pages 167–168		
	Day	Read and complete Day 1 • The Fourth Day of Creation • Pages 169– 174		
Week 18	Day	Read and complete Day 2 • The Fourth Day of Creation • Pages 175– 176		
	Day	Read and complete Day 3 • The Fourth Day of Creation • Pages 177– 178		

Schedule				
Date	Day	Assignment	Due Date	$\checkmark$
Week 19	Day	Read and complete Day 1 • Sun • Pages 179–181		
	Day	Read and complete Day 2 • Sun • Pages 182–184		
	Day	Read and complete Day 3 • Sun • Page 185		
	Day	Read and complete Day 1 • Moon — Surface • Pages 187–192		
Week 20	Day	Read and complete Day 2 • Moon — Surface • Pages 193–194		-
	Day	Read and complete Day 3 • Moon — Surface • Pages 195–196		
	Day	Read and complete Day 1 • Moon — Phases • Pages 197-201		
Week 21	Day	Read and complete Day 2 • Moon — Phases • Pages 202-204		
	Day	Read and complete Day 3 • Moon — Phases • Pages 205–206		
	Day	Read and complete Day 1 • Stars • Pages 207–211		
Week 22	Day	Read and complete Day 2 • Stars • Page 212		-
	Day	Read and complete Day 3 • Stars • Pages 213-214		
	Day	Read and complete Day 1 • Constellations • Pages 215-219		
Week 23	Day	Read and complete Day 2 • Constellations • Pages 220-222		
	Day	Read and complete Day 3 • Constellations • Pages 223-224		
	Day	Read and complete Day 1 • The Fifth Day of Creation • Pages 225–228		
Week 24	Day	Read and complete Day 2 • The Fifth Day of Creation • Pages 229–230		
	Day	Read and complete Day 3 • The Fifth Day of Creation • Page 231		
	Day	Read and complete Day 1 • Birds • Pages 233–235		
Week 25	Day	Read and complete Day 2 • Birds • Pages 236-237		
	Day	Read and complete Day 3 • Birds • Pages 238-240		
	Day	Read and complete Day 1 • Bird Nests • Pages 241–244		
Week 26	Day	Read and complete Day 2 • Bird Nests • Pages 245–246		
	Day	Read and complete Day 3 • Bird Nests • Pages 247-250		
	Day	Read and complete Day 1 • Layers of the Ocean • Pages 251–254		
Week 27	Day	Read and complete Day 2 • Layers of the Ocean • Pages 255–256		
	Day	Read and complete Day 3 • Layers of the Ocean • Pages 257-259		

	Schedule			
Date	Day	Assignment	Due Date	$\checkmark$
	Day	Read and complete Day 1 • The Sunlit and Twilight Ocean Zones • Pages 261–265		
Week 28	Day	Read and complete Day 2 • The Sunlit and Twilight Ocean Zones • Pages 266–267		
	Pay	Read and complete Day 3 • The Sunlit and Twilight Ocean Zones • Pages 268–269		
	Day	Read and complete Day 1 • Deep-sea Creatures • Pages 271–275		
Week 29	Day	Read and complete Day 2 • Deep-sea Creatures • Page 276		
	Day	Read and complete Day 3 • Deep-sea Creatures • Pages 277–278		
	Day	Read and complete Day 1 • The Sixth Day of Creation • Pages 279–284		
Week 30	Day	Read and complete Day 2 • The Sixth Day of Creation • Page 284		
•••	Pay	Read and complete Day 3 • The Sixth Day of Creation • Pages 285-288		
	Day	Read and complete Day 1 • Animal Habitats • Pages 289–293		
Week 31	Day	Read and complete Day 2 • Animal Habitats • Page 294		
•	Day	Read and complete Day 3 • Animal Habitats • Pages 295–296		
	Day	Read and complete Day 1 • Mankind • Pages 297-301		
Week 32	Day	Read and complete Day 2 • Mankind • Pages 302–304		
	Day	Read and complete Day 3 • Mankind • Pages 305–306		
	Day	Read and complete Day 1 • The Circulatory System • Pages 307–312		
Week 33	Day	Read and complete Day 2 • The Circulatory System • Pages 313–314		
	Pay	Read and complete Day 3 • The Circulatory System • Pages 315–316		
	Day	Read and complete Day 1 • Uniquely You • Pages 317–321		
Week 34	Day	Read and complete Day 2 • Uniquely You • Page 322		
	Day	Read and complete Day 3 • Uniquely You • Pages 323-324		
	Day	Read and complete Day 1 • The Five Senses • Pages 325–328		
Week 35	Day	Read and complete Day 2 • The Five Senses • Pages 329–330		
	Day	Read and complete Day 3 • The Five Senses • Pages 331–332		
	Day	Read and complete Day 1 • Conclusion • Pages 333-338		
Week 36	Day	Read and complete Day 2 • Conclusion • Pages 338-342		
	Day	Read and complete Day 3 • Conclusion • Pages 343-345		

## How We Study Science

Welcome to our science adventure. I'm so excited to explore God's incredible creation with you! Wait, what was that you asked? What is science? Well, that is a really great question. Let's talk about it!

Science is an amazing tool God has given us to learn about and explore the world He created. Science helps us ask questions, test our ideas, and share what we learn about the world and about God with others. Science helps us learn more about God — who He is and what He does.

E

Learn

So how do we study science? Well, first we start with the Bible. The Bible is God's Word



week

to us, and we begin to study science through it. You see, God created everything — and when we wonder about something in His creation, He is the first one we should ask!

The Bible tells us God created the heavens and the earth and everything in them! As our Creator, He understands everything and knows exactly how each area of creation works and fits together.

Psalm 111:2–4 tells us, "Great are the works of the LORD; they are pondered by all who delight in them. Glorious and majestic are his deeds, and his righteousness endures forever. He has caused his wonders to be remembered; the LORD is gracious and compassionate." When we study God's creation through science, we see His creativity, organization, grace, mercy, and majesty on display in everything.

In the Bible, we learn that God created the first two people, Adam and Eve. They were real people — just like us! God placed them in a beautiful garden. Do you remember the name of the garden?

It was the Garden of Eden. It was a perfect place where God walked and talked with Adam and Eve! Can you imagine what it would have been like to walk and talk with God? The Bible doesn't tell us all the things God may have talked about with Adam and Eve — we can imagine what they may have talked about, though.

But then, something terrible happened. Adam and Eve disobeyed God's directions. They did something wrong. They sinned, and sin separates us from God. Because of their sin, Adam and Eve had to leave the Garden of Eden. Their sin broke the world. It was no longer perfect as God had created it to be — and one day, they would die.

After they left the Garden of Eden, Adam and Eve had children — boys and girls, just like you! The Bible tells us some of their names were Cain, Abel, and later Seth. I'm sure their children asked Adam and Eve many questions — just like you ask me — and Adam and Eve likely taught their children the things God had taught them.

We can use our imagination to think of things they may have talked

3-ring binder for student's Science Notebook Small rock or pebble, non-porous so it will sink in water Container of water to drop the rock into Crayons or colored pencils Weekly materials list about together! Maybe one night, their talk went something like this . . .

Teacher tip: The story passages are designed with many short, simple words. If your student is learning to read or reading fluently, you can direct him or her to read the words that are at their reading level. You can also preview the text and highlight or underline words they can read. Once your student has read the word, continue reading to them until you reach the next word they can read.



It was a still night. The stars were bright in the sky. "Dad?"

"Yes. Abel?" Adam said.

"Can you tell me again? Can you tell me how God made the world? I want to know all about it."

"Yes, son. I would love to!" Adam was quiet for a minute as he thought back to the days he walked and talked with God. He remembered asking God that same question, "How did you make the world?" and God had told him.

"Well, Abel, at the start there was nothing. But God was there. He had always been there, and He always will be there. At the start, there was no world, no plants, no animals. There was nothing, then God started creating. First, God created the heavens and the earth — but it was empty and dark. Then, God just spoke! He said, 'Let there be light!' and then there was light!"

"Did you ask God about the earth and light, Dad?"

"I did son, and God told me many things about them! Would you like to learn them?"

"Yes, please!"

Adam smiled. "It is getting late. We should go to sleep. But when we wake up in the morning, I'll tell you all about God's creation."

> "Okay, Dad, I am very excited to learn about God's creation!"

#### name

I'm so very excited to learn about God's creation with you, too! Let's read Psalm 111:2–4 once more: "Great are the works of the LORD; they are pondered by all who delight in them. Glorious and majestic are his deeds, and his righteousness endures forever. He has caused his wonders to be remembered; the LORD is gracious and compassionate."

Color a picture of the earth, one of God's great works!







**Great** are the **works** of the **LORD**; they are **pondered** by **all** who **delight** in them.

	Actions
Great	Place both hands in front of you over your head. Palms will face out like they would in a "stop" signal.
works	Make your hands into fists — one on the bottom, one on top. Tap your top fist onto the bottom fist.
LORD	Make an L with your pointer finger and thumb on your left hand. Place your L hand at your right shoulder and cross it in front of you to your left hip — almost like you are wearing a sash and tracing over it with your hand. You can also search for this sign online to see it in action by searching "sign language for Lord."
pondered	Tap your forehead as if you are thinking.
all	Sweep your hands around the room as if gesturing to a large crowd of people.
delight	Hold hands palm up and raise them to about eye level.



#### Experience

#### materials needed

Small rock or pebble (nonporous so it will sink in water)

Container of water to drop the rock into I'm so excited to learn about light, but before we dive into our study of God's creation and light, we first need to know how we study science.

Do you remember what science is? [Answers may vary, but should be similar to: science is a tool God has given us to learn about and explore the world He created.]

Science is an amazing tool God has given us to learn about and explore the world He created. Science helps us ask important questions, think of ideas, and then share what we learned with our friends and family. Experiments are one way to test our ideas and answer our questions. Do you want to try an experiment? Me too!



#### Activity directions:

[Teacher grab small rock] I have a question! I wonder if this rock will sink or float in water? What do you think? [Allow student to answer.]

What we think will happen is called our hypothesis. Can you say that word with me? Hypothesis — that is a fun word! A hypothesis is what we think will happen. We can do an experiment to see if what we think will happen — our hypothesis — is what actually does happen.

[Give the student the rock and ask them to place it in the water. Observe what happens.]

Did you think the rock would sink or float in the water before we tried it? [Allow student to answer.]

What happened when we dropped the rock in the water? [Allow student to answer.]

That is so neat. This is how science helps us answer our questions! We asked a question, thought of our hypothesis — what we thought would happen — and tested it with an experiment. Isn't science cool?

What is a hypothesis?

Can you

tell me

about your experiment? What did you think would happen, and what did happen?

- Your student may also enjoy guiding a sibling, parent, or grandparent through this simple experiment. Encourage them to teach the word "hypothesis" as they help someone else do this experiment.
- Think of another simple experiment you can do with your student. Develop your hypothesis and test it together!

#### name

Trace the word hypothesis and draw a picture of people thinking.

. • . . - | |/ | <u>``</u> ~\_\_\_\_ \_\_\_\_\_





#### materials needed

3-ring binder for student's Science Notebook

Crayons or colored pencils

Teacher tip: : If applicable, your student may also create a cover for or decorate their Science Notebook.

Detach sheet and complete. Once completed, student may add the page to their Science Notebook. We've had so much fun this week learning about science! I have one more surprise for you. As we study science this year, we are also going to create an awesome Science Notebook!

Science helps us share what we learned with our friends and family. Our Science Notebook will help us record what we've learned each week so that we can tell others about it, too!

This week, we learned that science is an amazing tool God has given us to learn about and explore the world He created. We learned that when we do an experiment, what we think will happen is called our hypothesis.

We did an experiment with the rock and the water, and we saw the rock sink in the water. Let's draw a comic strip of our experiment so that we can share what happened with our friends and family!

#### name

**Square I:** Draw a picture of yourself asking a question.

**Square 2:** Draw your hypothesis. Did you think the rock would sink or float in the water?

**Square 3:** Draw what happened when you dropped the rock in the water.



week

## The Water Cycle

#### **2nd Day of Creation**

Drip, drop, drip, drop . . . listen with your imagination. Do you hear the rain falling? The rain is falling in our lesson today because we are learning about the water cycle! In our last few lessons, we learned about clouds and how they are formed by evaporation and condensation.

Today, we are going to learn about precipitation. That is what we call it when it rains, hails, sleets, or snows. Evaporation, condensation, and precipitation — those are all really fun words to say! Can you say them with me? Evaporation, condensation, and precipitation.



Water on the earth evaporates — just like we learned last week — and floats through the air as water vapor. Water vapor is made up of many

tiny, tiny droplets of water. As the water vapor floats higher into the



Learn

atmosphere, it begins to condense — to cool — and form clouds. Clouds float high above us, filled with water droplets and ice crystals.

Have you ever carried a gallon of milk or water? It is heavy, isn't it? Clouds are filled with hundreds and hundreds of gallons of water! As more and more water vapor floats to the sky, the tiny water droplets condense and begin to stick together and form clouds. Then, as more and more water vapor condenses, the droplets of water in the cloud become bigger and heavier.

Clouds are very, very heavy, but they float on the layer of warm air above the earth. God's creation is so amazing! Eventually, the water droplets become too big and heavy for the layer of warm air above the earth to hold them up. When this happens, the water droplets fall out of the cloud and form raindrops. We call this precipitation!

Can you say that word with me? Precipitation! That is what we call it when it rains, hails, sleets, or snows.

Hmm, I wonder if Abel ever asked Adam about rain . . . let's imagine that he did! In our last story, Cain and Abel were running off to find Adam. Let's imagine what happens next.



Eve watched the boys as they ran to find Adam. He was tending a field not far from their tent.

"Dad, Dad!" Abel shouted. "Guess what!"

Adam looked up, wiped some sweat from his forehead and smiled. "Hmm, I cannot guess. Tell me, Abel," Adam replied.

"Mom taught us about condensation and evaporation," Abel said breathlessly as Cain interrupted, "And clouds, Dad!"

"Wow, it sounds like you have been learning a lot today! There is something else clouds do. If we wait a bit, I think we may get to learn about that as well." Adam glanced at the sky. It was much cloudier than earlier, and it was starting to look like it may rain.

"Here, help me finish in the field, boys." Adam gave them both a tool, and they began to work. They worked together for awhile, then suddenly, Cain felt a drop of water on the back of his neck. He looked at Abel, who had just felt a drop of water on his hand.

"Um, Dad? Is this what you were talking about?" Cain asked just as it began to slowly rain. Drops of water could be heard as they began to plop on the earth all around them. Drip, drop, drip, drop.

"It sure is!" said Adam. "This is called precipitation — rain!"

They all held out their hands to catch the raindrops. "As water vapor floats higher and condenses in the sky, the water droplets form clouds. The tiny droplets begin to stick together and make bigger and bigger drops of water until the drops are too big and heavy to stay in the cloud anymore. Then, they fall toward the earth and water it. This is one way God cares for His creation," Adam explained.

Suddenly, there were more water drops all around them, and it began to rain hard. The boys looked at each other and said together, "Let's get back to the tent!" And with that, they were off! They ran toward the tent as Adam followed behind.

Adam thought as he walked, "Thank you, God, that you still care for us and the earth. Even though our sin broke the world."



(NIrV), we read this about God: "He does wonderful things that can't be understood. He does miracles that can't even be counted. He sends rain on the earth. He sends water on the countryside."

In Psalm 147:7–8 (NIrV), we read, "Sing to the LORD and give him grateful praise. Make music to our God on the harp. He covers the sky with clouds. He supplies the earth with rain. He makes grass grow on the hills."

Isn't God's care for us amazing? He sends the rain, which waters the earth so plants can grow. Thank you, God, for rain!



 What is condensation, evaporation, and precipitation?
 Rain is one way God cares for the earth. Can you think of any other ways He cares for us?



**Sing** to the Lord and give him grateful **praise**. Make **music to our God on the harp**. He **covers** the sky with clouds. He supplies the earth with **rain**. He makes grass grow on the **hills**.

	Actions
Sing	Place your hands around your mouth, as if you are going to call for someone loudly. You can also say this word in a sing-song voice.
praise	Put your hands together like you are praying or raise your hands in worship.
music to our God on the harp	Pretend to play the harp or another instrument.
covers	Lift your hands above your head with your palms facing the sky. Spread them apart as if they are moving across something that covers the sky.
rain	Wiggle your fingers and move your hands down, as if it is raining.
hills	Trace hills in the air with your pointer finger.



# materials neededMason jar or<br/>large glass cupShaving creamBlue food<br/>coloringWaterSmall bowlDropper or<br/>spoonPlastic bag or

a flat plate (to protect surface)

Today, we are going to make rain in a jar. It will be so much fun! We learned about precipitation in our last lesson — that is what we call it when it rains. What are we waiting for? Let's get started!

#### Activity directions:

- 1. Fill a jar about halfway full of water.
- 2. Spray a layer of shaving cream above the water to look like a cloud. For less mess, do not spray shaving cream to the top of the jar. Leave a little gap between the top of the jar and the top of the shaving cream "cloud."
- 3. Add water to a small bowl and add a drop or two of blue food coloring.
- 4. Instruct student to use dropper or spoon to slowly drop water on top of the shaving cream cloud. When the cloud becomes too full of water, it will begin to rain out the bottom of the cloud!
- 5. Watch it rain in the jar.

Wow! You made rain in a jar. That was so cool to see! Water evaporates from the earth — from streams, ponds, lakes, and the ocean. The water vapor floats

through the sky until it is up high where it is colder. It then condenses to form clouds. Then, the water droplets in the clouds stick to each other until they become too heavy, and the water drop falls back to the earth as rain, hail, sleet, or snow.

Some of the rainwater will sink deep into the ground, and some of the rainwater will go back to streams, ponds, lakes, or oceans where it will evaporate again. We call this the water cycle. Isn't it neat? God designed an amazing system to recycle water and care for the earth. Rain is a very special part of God's creation.



Can you tell me about the water cycle? What happens when the water droplets become too big and heavy in the cloud?



#### name

**Share** Whew — what a week it has been! We learned about precipitation. Do you remember what that is? Precipitation is rain! We were able to make rain in a jar,

and then we learned about the water cycle. We've come to the end of our week, and now it's time to share what we have learned! Are you ready?

#### God made the water cycle! Let's color the picture of how it works.



#### Trace the words from Psalm 147:7-8 (NIrV) below.

to the Lord and give him grateful りつく | - 1 He <u>COVETS</u> the sky with clouds. He supplies the earth with <u>ECHI</u> 

### The Fourth Day of Creation

4th Day of Creation

Welcome back to a new science adventure as we study God's creation! It's time to explore the fourth day of creation. Are you excited? So far, we've learned about the first, second, and third days of creation. Do you remember

what God made on the first day of creation?

Learn

God made the heavens, earth, and light on the first day of creation! What about the second day, do you remember? God made the atmosphere the sky — on the second day of creation. We've also learned about the third day of creation during the last few weeks. Do you remember what God made on the third day of creation?



week

18

God made dry ground and plants on the third day of creation. We learned about continents

and the layers inside the earth. We also learned some amazing things about plants as we studied leaves and photosynthesis, pollination, and seeds. What was your favorite part?



I wonder what God made on the fourth day of creation . . . do you wonder, too? Where do you think we should look for our answers? In the Bible! Let's read from Genesis 1:14–19 (NIrV):

God said, "Let there be lights in the huge space of the sky. Let them separate the day from the night. Let the lights set the times for the holy celebrations and the days and the years. Let them be lights in the huge space of the sky to give light on the earth." And that's exactly what happened. God made two great lights. He made the larger light to rule over the day and the smaller light to rule over the night. He also made the stars. God put the lights in the huge space of the sky to give light on the earth. He put them there to rule over the day and the night. He put them there to separate light from darkness. God saw that it was good. There was evening, and there was morning. It was day four.

I think we heard our answer. Did you hear it, too? God made the sun, moon, and stars on the fourth day of creation. Ooh, I'm so excited to study the sun, moon, and stars! I wonder if Cain and Abel ever asked Adam and Eve about the fourth day of creation? In our last story, Adam, Eve, Cain, and Abel were walking and talking about flowers. Let's imagine what happened next!



Cain and Abel had learned a lot about flowers during their walk, and they enjoyed looking at and smelling many different kinds of flowers. Later

that night, Abel started to wonder what God had made on the fourth day of creation. He decided he would ask his mom and dad the next morning during breakfast. He prayed and thanked God for the beautiful flowers, and then he fell asleep.

The sun rose the next morning, and a rooster crowed far away. Abel jumped out of bed. He couldn't wait to hear what God had made on the fourth day of creation. "Mom! Dad!" Abel called through their tent. He found Eve and gave her a good morning hug. "Mom, what did God make on the fourth day of creation?"

"Good morning, Abel. That's a good question. Let's eat breakfast, then we will talk about the fourth day of creation." Adam and Cain woke up and they all ate breakfast together. Abel used a cloth to wipe his mouth after breakfast, then exclaimed, "Okay! What did God make on the fourth day of creation?" Adam and Eve laughed. They were happy Abel was excited to learn.

"On the fourth day of creation, God made the sun, moon, and stars, Abel," Eve replied as Abel clapped his hands.

"I can't wait to learn about the sun, moon, and stars, Mom!" he said.

"I asked God about the fourth day of creation, too, Abel," Adam said. "The sun is a large star and God put it at just the perfect distance from the earth. The sun gives us light during the day, and it gives us heat to make the earth not too hot and not too cold for us to live on."

"Wow! It sure is amazing that God put everything in creation right in the perfect place," Abel replied.

"Yes, it is, buddy! Let's get started on the day now, and we'll talk more as we get to work." Abel helped to clean up after breakfast. He was excited to work with his dad and learn more about the sun, moon, and stars.



The sun is the larger light God made to rule the day. The sun is very, very big. We could fit one million of our planet earths inside of it! That is bigger than I can imagine. But, even though the sun is that big, the sun is just a medium-sized star. That means God also created stars far bigger than the sun.



Sometimes, when we study God's creation, we learn about something amazing — like the sun — and it reminds us that God is great, wise, and powerful. As we learn about the sun, moon, and stars, the amazing design God gave them reminds us to praise and worship Him. Psalm 113:2–3 (NIrV) says, "Let us praise the name of the LORD, both now and forever. From the sunrise in the east to the sunset in the west, may the name of the LORD be praised."

We're going to continue learning about the sun as we study the fourth day of creation. As we learn, don't forget to praise God and thank Him for His amazing design!

#### name

Trace the words "sun," "moon," and "stars" below each image. God made the sun, moon, and stars on the fourth day of creation!



![](_page_38_Picture_1.jpeg)

Let us **praise** the name of the **LORD**, both now and forever. From the **sunrise in the east to the sunset in the west**, may the name of the **LORD** be **praised**.

	Actions
praise • praised	Place your hands together as if in prayer or raise them in worship.
LORD	Make an L with your pointer finger and thumb on your left hand. Place your left hand at your right shoulder and cross it in front of you to your left hip — almost like you are wearing a sash and tracing over it with your hand. You can also search for this sign online to see it in action by searching "sign language for Lord."
sunrise in the east to the sunset in the west	Point your finger toward your left side then trace it up and over your head to your right side, like you are tracing the path of the sun through the sky.

![](_page_39_Picture_1.jpeg)

tissue paper or construction paper, cut or torn into approximately 1-inch pieces Are you ready to learn more about the sun? In our last lesson, we learned that God made the sun, moon, and stars on the fourth day of creation. We also learned a little about the sun! The sun is very, very large. Do you remember how many earths could fit inside? One million! We also learned that the sun is a medium-sized star. There are much bigger stars.

The sun gives us light and keeps the earth at the perfect temperature for us to live. The sun looks big in the sky because it is the star closest to earth at about 93 million miles away. Even though the sun is the closest star to earth, it is still very, very far away.

God placed the sun at the perfect distance, not

too far away from the earth — this would make the earth too cold. The sun is also not too close to the earth — this would make the earth too hot. Remember when we learned about light and how light travels so fast? The sun is far away from

![](_page_39_Picture_7.jpeg)

us, and light travels very fast. As light travels from the sun, it takes about 8 minutes for that light from the sun to reach us here on earth. How amazing!

If the sun were as tall as a typical front door, Earth would be about the size of a nickel.

![](_page_40_Picture_1.jpeg)

The sun is made mostly of two elements called helium and hydrogen, and the surface of the sun is about 11,000 degrees Fahrenheit. Put your hand on my forehead. Can you feel how hot I am? You and I are about 98.5 degrees Fahrenheit. That means the sun is over 100 times warmer than we are. The sun provides the perfect amount of heat to keep the earth at just the right temperature for us to

live. The sun gives us light and heat so that we can live on the earth.

The sun looks like a big, fiery, burning ball with areas of red, orange, and yellow. Let's make our own example of the sun!

#### Activity directions:

Glue pieces of construction paper or tissue paper onto the paper plate to resemble the sun.

Teacher tip: Save the paper plate sun from our lesson today for next week—it will be part of next week's activity day.

![](_page_40_Picture_8.jpeg)

What can you do in 8 minutes?

![](_page_40_Picture_10.jpeg)

Set a timer for 8 minutes to see how long it takes light to travel 93 million miles from the sun to earth. When you set the timer, ask your student to imagine light leaving the sun and traveling through space. When the timer beeps, remind your student that the light made its way all the way from the sun to us — light travels a long way very quickly!

![](_page_41_Picture_1.jpeg)

#### name

We've learned a lot about the fourth day of creation and the sun this week. Did you have fun? You know what today is — Share it's time to add a new page to our Science Notebook! We've been learning about the fourth day of creation when God

made the sun, moon, and stars. We've learned a little about the sun this week. Do you remember what the sun gives us? Light and heat!

Color the pictures of the earth and the sun and write "The sun gives us light and heat." Then, add this page to your Science Notebook. Don't forget to tell someone that God created the sun, and He put it in the perfect spot to give us the light and heat we need.

![](_page_41_Picture_6.jpeg)

#### Trace the text and color the sun.

![](_page_42_Figure_2.jpeg)

![](_page_42_Picture_3.jpeg)