



Science A



INSTRUCTOR'S GUIDE



Science (5-Day)

Biology, Botany, and Physics

by The Sonlight Team

*“The heavens declare the glory of God; the skies
proclaim the work of his hands.”*

Psalm 19:1 (NIV)

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Sonlight Curriculum® “Intro to the World: Cultures” (5-Day) Instructor’s Guide and Notes, Twenty-Ninth Edition

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“Do to others what you would have them do to you”
(Matthew 7:12).

“The worker is worth his keep” (Matthew 10:10).

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1 Introduction to Your Instructor’s Guide



- Table of Contents

2 Schedule, Notes and Activity Sheets

- A Weekly SCHEDULE for Science
- ACTIVITY SHEET ANSWER KEYS

Days 1–5: Date: _____ to _____

Week Overview																	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36

Week 1					
Date:	Day 1	Day 2	Day 3	Day 4	Day 5
<i>Children's Encyclopedia</i>	pp. 8–9		pp. 10–11	pp. 12–13	pp. 14–15
Activity Sheet Questions	#1–2 		#3–4	#5–7	#8–10
<i>Discover & Do Level K DVD</i>		"Before You Begin" Tracks #1–3			
<i>Science Activities, Vol. 2</i>		"Air All Around" pp. 2–3			
Do Together				The Seasons at Your House	The Flood
Supplies	You provide: sheets of paper, 8" x 10" cardboard for each player (optional: crayons, thread or string or yarn) bottle, bowl, water. 				
Shopping/Planning List	For next week: feather from any bird, plate, 10" x 10" paper, pencil, scissors, crayons, needle, thread or string or yarn, two dish cloths, plastic bag, plate, salt, bowl, water, plastic wrap, sugar, food color, spoons, saucers, glass, plate, very warm water, long-necked bottle, deep bowl or bucket, large coin, ice cubes, plastic bag, rolling pin or hammer or rock, plastic bottle with cap.				
Additional Subjects:					

Children's Encyclopedia

Day 1

pp. 8–9

Let your children know how amazing it is that so many things have to work just right in order for our world to support life. For example, if we were too close to the Sun, our world would be too hot to support life. If we were too far, it would be too cold. Isn't it amazing what God has done in His creation? He's made things just right to support life on Earth.

The book mentions continents, but doesn't list them. The seven continents are North America, South America, Europe, Asia, Africa, Australia, and Antarctica. Find a map at the back of the book on page 286–287 and show your children the continents. [p. 8]

Notice the "Internet links" box at the top of the page. It is not necessary to visit all these links as part of your reading, but if you'd like to, just follow the link listed in the book for supplemental online material.

The book mentions what the Earth is made of, but doesn't properly label the layers: The outer layer is called the crust; next there is the mantle; then in the center is the core. One idea to help your children visualize the layers of the Earth is to compare the Earth to an egg. The shell is the crust, the white part is the mantle, and the yolk is the core. For a hands-on visual, hard-boil an egg and talk about each part. To see the "mantle" and the "core," you'll need to peel away the "crust" first, but then cut the egg in half lengthwise for a nice cross-section of the "Earth"! Of course, the Earth is not shaped exactly like an egg, but neither is it perfectly round (there are flatter parts on the top and bottom). [p. 9]

Do Together

Day
4

The Seasons at Your House

Using a large piece of poster board, draw a line down the middle in each direction so as to divide it into four equal parts. Label the upper left corner "Spring," the upper right corner "Summer," the lower left corner "Fall," and the lower right corner "Winter." Now ask your children to use crayons, markers, paint, colored pencils, etc. to draw a picture of what each of the seasons looks like where you live. As they draw, discuss the seasons and what's different about each one. Ask them to think about how a stranger who just flew in from halfway around the world would be able to tell what season it is at any particular time. What clues would he find? Have fun with this activity, as your children learn more about how the seasons change in your particular area. When they're done, proudly display their work of art on the refrigerator or a wall where everyone can see it.

Day
5

The Flood

Issues of faith and science intersect often. For example, in your children's reading this week, they learned about the scientific aspects of rainbows. But do they know the biblical explanation behind rainbows? To remind them, discuss Noah and the flood and then read Genesis 9:8–17. According to the Bible, what should we remember when we see a rainbow?

To explain how a rainbow forms, explain to your children that light is made up of a lot of colors. Specifically, the colors are red, orange, yellow, green, blue, indigo, and violet. When light passes through the water, it is broken up into the colors seen in a rainbow.

Supplies

Day
All


You Provide

Note to Mom or Dad: When supplies are listed as "**We provide**," they are materials found in your course-specific (ASK) Supplies Kit. When supplies are listed as "**You provide**," they are materials you can generally find around your home. ■

Science A: Week 1 Activity Sheet

Children's Encyclopedia
Mom or Dad: Write your child's answer as you talk about each question.

- How many continents does the Earth have? Count them. (p. 8)
(7)




On which continent do you live? (Answers will vary.)

- Why is a day 24 hours long? (Put an X next to the correct answer.) (p. 8)

☒ because that's how long it takes for the Earth to spin once on its axis

☐ because that's how long it takes for the Earth to travel around the Sun




- Discuss with Mom or Dad:** Why is it daytime on only one side of the Earth at a time? (p. 10)
(as the Earth turns, only one side faces the Sun; one side of the Earth is in light while the other side is in shadow)

Biology, Botany, and Physics | 5-Day | Week 1 Activity Sheet 1

Science A: Week 1 Activity Sheet

- Challenge:** Make the statement true. (Please find Cut-Out #1 in the Appendix.) (p. 10)
The Sun rises in the East and sets in the West.
- Can you name the four seasons? (p. 12)
1) (spring) 2) (summer)
3) (fall) 4) (winter)
- Use the map to help you answer. (Please find Cut-Out #2) (p. 13)


When it is summer in:



North America

South America

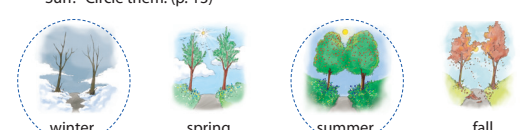
...it is winter in:



North America

South America

- During which two seasons does the Earth tilt toward or away from the Sun? Circle them. (p. 13)



winter spring summer fall

Week 1 Activity Sheet | 5-Day | Biology, Botany, and Physics 2



Children's Encyclopedia

Mom or Dad: Write your child's answer as you talk about each question.

1. How many continents does the Earth have? Count them. (p. 8)



On which continent do you live? _____

2. Why is a day 24 hours long?
(Put an X next to the correct answer.) (p. 8)



- ☐ because that's how long it takes for the Earth to spin once on its axis
- ☐ because that's how long it takes for the Earth to travel around the Sun

3. **Discuss with Mom or Dad:** Why is it daytime on only one side of the Earth at a time? (p. 10)



4. **Challenge:** Make the statement true. (Please find Cut-Out #1 in the Appendix.) (p. 10)

The Sun rises in the and sets in the .

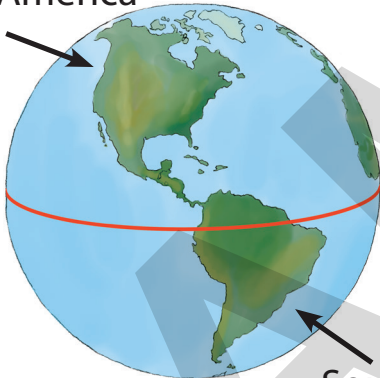
5. Can you name the four seasons? (p. 12)

1) _____ 2) _____

3) _____ 4) _____

6. Use the map to help you answer. (Please find Cut-Out #2) (p. 13)

North America



South America

When it is summer in:

...it is winter in:

7. During which two seasons does the Earth tilt toward or away from the Sun? Circle them. (p. 13)



winter



spring



summer



fall