

SCIENCE 6

COURSE MANUAL

6SCI04_21A



LESSON PLANS - ANSWER KEYS - PRE-TESTS - TESTS - QUARTER REPORT FORMS

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Course Materials

- *Earth Science for Young Catholics* (2021 Edition)
- *Space Science for Young Catholics* (2021 Edition)





FIRST QUARTER



SCIENCE 6 LESSON PLAN

Week One

We will begin the course using the *Earth Science for Young Catholics* textbook. This textbook contains twenty-one chapters that cover planet Earth – its structure, forces, regions, landforms, atmosphere, weather, and resources. **You will be using this textbook each day until the end of Week Twenty-Three.**

You can check off work
as you complete it!

Day 1

CHAPTER 1. HOW TO STUDY THE CREATED WORLD



Take a few moments to look over the textbook, the cover, and table of contents. Notice the glossary in the back of the book. The glossary includes important words from the lessons and their definitions. ☐



Lesson 1.1: Observation. Read and study. This lesson introduces the Scientific Method and explains how observation has been used throughout history. ☐

NOTE: Lessons in this chapter are longer than later ones. Much of the information will be a review of facts you learned in earlier grades.



Complete 1.1 Lesson Review. ☐

Day 2



Lesson 1.2: Measurement. Read and study about the importance of accurate units of measurement. ☐



Memorize the definitions of matter, mass, and weight. Units of U.S. Customary Measurement will be familiar to you. ☐



Complete 1.2 Lesson Review. ☐

Day 3



Lesson 1.3: The Metric/International System of Measurement. Read and study. ☐

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You have learned some metric measures in math class. Memorizing basic metric units and prefixes will help you to use this book, and will be of great benefit to you, especially during your remaining years as a student. The International System of Units (SI) will be especially useful if you go into a scientific field, such as medicine, or if you live abroad.



Complete 1.3 Lesson Review.

☐

Day 4



Lesson 1.4: Advanced Measurement/ How Does Earth Measure Up? Read and study. You do not need to memorize the various measures of Earth, although it might impress your friends and family to do so.

☐


Do **memorize** what is meant by *area* and *volume*, definitions you will continue to use during your years of studying math.

☐


Complete 1.4 Lesson Review.

☐

Day 5



Lesson 1.5: Fr. Roger Bacon. Learn about Roger Bacon, a Franciscan Friar and leader in scientific study in his own time. He was committed to the Scientific Method. Learn why the United States is one of only three countries to use U.S. Customary Measurement?

☐


Complete the **Chapter 1 Review**, paying special attention to the vocabulary words. (First try to do as much of this chapter review as you can without looking up the answers in the text. Then look in the text as necessary to complete the rest of this review.)

☐

Week Two

Day 1

CHAPTER 2. A CLOSER LOOK AT EARTH'S LAYERS



Lesson 2.1: How do we study the Earth's Inner Layers? Read and study.

☐



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Suggestion to Parent: As time allows, look online for images of rocks listed in this lesson to show to your student.



Complete the 10.4 Lesson Review. ☐

Day 5



Lesson 10.5: Connections Between Language Arts and Science. Read how studying language arts can help you learn science. ☐



Complete the **Chapter 10 Review**. (First try to do as much of this chapter review as you can without looking up the answers in the text. Then look in the text as necessary to complete the rest of this review.) ☐



Complete the **Cumulative Review**. The Cumulative Review tests your knowledge of vocabulary that will be used often in this text. See how many vocabulary words you remember. ☐

Week Twelve

Day 1

CHAPTER 11. MOVEMENTS OF THE EARTH



Lesson 11.1: Earth's Orbit. Read and study. The Earth orbits, or revolves, around the sun. Read about the difference between the geocentric and heliocentric models of our solar system. ☐



Memorize the definition of *ellipse*; you will use that word often this year. You will also use the astronomical unit (AU) measurement, especially when you study space. ☐



Complete the 11.1 Lesson Review. Can you do this review without looking back at the text? ☐

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Day 2



Lesson 11.2: Earth's Rotation on Its Axis. Read and study. Review the meaning of Earth's *axis*, and study why we say it is tilted. Make sure you understand the words *horizontal* and *vertical*. You will be using them for the rest of your life - not just in school, but in ordinary, everyday situations too. A pipe and stick will help you to understand them as explained in the lesson. ☐



Complete 11.2 Lesson Review. ☐

Day 3



Lesson 11.3: What Causes the Seasons? Read and study. Many students think it is Earth's distance to the sun at different times of the year that causes seasons. Not true! The seasons are caused by Earth's tilt on its axis, causing the sun's rays to hit different parts of the planet at certain times of the year. Make sure you understand the meanings of *equinox* and *solstice*. ☐



Complete 11.3 Lesson Review. If you do not know where the countries mentioned are located, look them up on a world map. ☐

Day 4



Lesson 11.4: Time Zones. Read and study about the history of time zones and how our present system of counting time developed. ☐



Complete the 11.4 Lesson Review. Can you do this review without looking back at the text? ☐

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Week Twenty-Four

Welcome to *Space Science for Young Catholics*. This textbook presents eleven chapters that study space – our solar system and the cosmos, and space exploration.

Day 1

CHAPTER 1. ASTRONOMY



Lesson 1.1: What is Astronomy? Read and study. This section introduces you to the oldest of the sciences: astronomy. Astronomy is the study of the universe outside the Earth's atmosphere. Studying the heavens was especially useful for navigation. ☐



Suggestion to Parent: If you search online for “video celestial navigation,” you can find videos explaining how it works to show to your student.



Complete the 1.1 Lesson Review. Can you do the review without looking back at the text? ☐



**SCIENCE 6** LESSON PLAN**Day 2**

Lesson 1.2: Constellations. Read and study. Constellations are patterns of stars in the night sky. Sky maps for star gazers and star map apps for smartphones can help you make sense of the beautiful jumble of bright lights in the night sky. ☐



Complete 1.2 Lesson Review. ☐

Day 3

Lesson 1.3: Astronomical Instruments for Timekeeping and Navigation. Read and study. Learn about shadow clocks, sundials, armillary spheres, astrolabes, and sextants. ☐



Suggestion to Parent: A simple online search will bring up videos showing how these instruments work, and even where to buy or how to make some of them.



Complete 1.3 Lesson Review. ☐

Day 4

Lesson 1.4: Astronomy Becomes a Modern Science. Read and study. At times students might think that studying math or scientific formulas seems disconnected from everyday life. Here we see a practical use. Newton's Laws allow us to keep satellites in space. The invention of the refracting telescope allowed humans to study the heavens in greater detail than ever before. Does your family own a telescope? ☐



Complete the 1.4 Lesson Review. ☐

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We encourage you, however, to write in this Course Manual, or highlight in it to mark student progress.

For more information, visit:
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