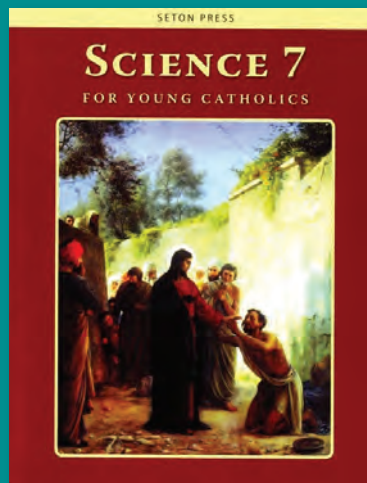




# SCIENCE 7

## COURSE MANUAL



LESSON PLANS - ANSWER KEYS - TESTS - QUARTER REPORT FORMS



# SCIENCE 7 LESSON PLAN

## Week One

### Day 1

You can check off work as you complete it!



**Science 7 for Young Catholics:** Look over your textbook. Skim through the table of contents and notice the pattern of the chapters. Read the Introduction. Read the table of contents. Look through this lesson plan, and see how it is arranged.

## CHAPTER 1 - HISTORY OF SCIENCE

Dr. Kenneth Stein wrote this interesting chapter on the History of Science. You will learn some things you never knew about as advancements in science.



**Science 7 for Young Catholics:** Read the outline for the chapter, then look through the chapter to find the outline headings. Read the sections on the Introduction as well as the sections on Egypt and Greece. Underline or highlight important points.

When we read this history, it makes us realize that people who lived long, long ago developed things to help them live more comfortably. Fairly recently, ancient paintings have been found on the walls of caves in France. Think about what kind of science the artists must have known to make the paint for their drawings, which would last on their cave walls for centuries.



**Science 7 for Young Catholics:** Read pp. 2-10: Introduction, Ancient Egypt, Ancient Greece.

### Day 2



**Science 7 for Young Catholics:** Read pp. 11-18: Ancient Rome, The Fall of Rome, The Middle Ages, The Birth of Modern Science.

### Day 3



**Science 7 for Young Catholics:** Read, pp. 18-20: The Renaissance, The Age of Newton. Review the chapter.

### Day 4



**Science 7 for Young Catholics:** Study the Chapter 1 Summary, p. 21.

# SCIENCE 7 LESSON PLAN



**Science 7 for Young Catholics:** Answer the Questions for Review on pp. 21-22.

Once you have completed these questions, you should check the answer key (located immediately after this lesson plan).

## Day 5



**Take the Chapter 1 Test on History of Science.** This test may be taken directly online.

### Parent:

If your child takes the paper test, please mail this test to Seton at the end of the quarter, along with the First Quarter Report Form, or you may scan this test and submit it to Seton online from your MySeton page.

## Week Two

## Day 1

# CHAPTER 2 - THE SCIENTIFIC METHOD



**Science 7 for Young Catholics:** Read, study the Outline on p. 23. Skim through the whole chapter. Read pp. 24-25.



**Look in the Children's or Young Adult sections of the library for books on The Scientific Method.** Your parents might find some articles for Seventh Grade on The Scientific Method on the Internet.

## Day 2



**Science 7 for Young Catholics:** Reread pp. 24-25. Read pp. 26-27, and top of p. 28.

## Day 3



**Science 7 for Young Catholics:** Review the chapter outline, skim over or review pp. 24-28. Read, study pp. 28-30.

## Day 4



**Science 7 for Young Catholics:** Review past pages in the chapter. Study pp. 30-33.



# SCIENCE 7 LESSON PLAN

## Week Nineteen

### Day 1

## CHAPTER 7 - ENERGY: HEAT, RADIO, SOUND



**Science 7 for Young Catholics:** Study the Chapter 7 Outline. Look through the whole chapter. Read p. 156 to top of p. 160.



**Science 7 for Young Catholics:** Answer the questions on p. 157.

### Day 2



**Science 7 for Young Catholics:** Review pp. 156-160. Do the Activity on pp. 158-159.

### Day 3



**Science 7 for Young Catholics:** Continue the Activity on p. 159 and the top of p. 160.

### Day 4



**Science 7 for Young Catholics:** Read II. Heat Production, p. 160.



**Science 7 for Young Catholics:** Do the Activity on p. 161. Answer the questions.

### Day 5



**Science 7 for Young Catholics:** Read p. 162 to top of p. 165.

## Week Twenty

### Day 1



**Science 7 for Young Catholics:** Review Chapter 7. Do the Activity on p. 163.

# SCIENCE 7 LESSON PLAN

## Day 2



**Science 7 for Young Catholics:** Review Chapter 7. Do the Activity on p. 164.

## Day 3



**Science 7 for Young Catholics:** Review Chapter 7. Read Radiation, pp. 165-166.



**Science 7 for Young Catholics:** Do the Activity on p. 166.

## Day 4



**Science 7 for Young Catholics:** Review Chapter 7. Read Insulation pp. 166-167.

## Day 5



**Science 7 for Young Catholics:** Review Chapter 7. Read pp. 168-169: VI. Radio.

## Week Twenty-One

## Day 1



**Science 7 for Young Catholics:** Review the chapter. Read VII. Sound, p. 169 to the top of p. 173.

## Day 2



**Science 7 for Young Catholics:** Review the chapter. Do the two Activities on p. 170.

## Day 3



**Science 7 for Young Catholics:** Review the chapter. Do the Activity on pp. 171-172.

## SCIENCE 7 LESSON PLAN

## Day 4



**Science 7 for Young Catholics:** Review the chapter. Read Music, pp. 173-174.

## Day 5



**Science 7 for Young Catholics:** Review Chapter 7. Study the Chapter 7 Summary on p. 175.

## Optional:

## THE MYSTERY OF THE PERIODIC TABLE, CHAPTER 10



**The Mystery of the Periodic Table:** Read Chapter 10, “Chemistry’s French Revolution.” Then read the following.

**Chapter Summary:** The chapter describes the amazing work of Monsieur Antoine Lavoisier. In a series of brilliant experiments, he demonstrated that:

- his theory of calcination of a metal as something from air going into the metal was the correct one;
- “dephlogisticated air” and “inflammable air” were elements that combined to produce water;
- air is a combination of oxygen and nitrogen;
- mass is neither created nor destroyed in chemical reactions (principle of conservation of mass).



**Answer the following** comprehension questions.

## COMPREHENSION

1. What did Monsieur Lavoisier observe as he heated mercury in his alembic?
2. What did this mean?
3. What happened when Lavoisier heated the red specks of calx of mercury that had been formed when he heated mercury in his alembic?
4. What does the word “oxygen” mean, and why did Monsieur Lavoisier call “dephlogisticated air” by this name?
5. According to Lavoisier, why does a candle burning under a glass jar snuff out?
6. Why did Lavoisier name “inflammable air” hydrogen?
7. How did Lavoisier conclude that air is composed of two substances?
8. What does the law of conservation of mass mean?



**Do the activities** for Something to Try.

## SOMETHING TO TRY

**NOTE:** The solution for this project is not available in the answer key for *The Mystery of the Periodic Table*.

## SCIENCE 7 LESSON PLAN

### JOINING OXYGEN AND IRON TO PRODUCE CALX OF IRON

**Materials:** steel wool pad (not a soap pad), vinegar, glass jar, clay, crayon

- Rinse steel wool with vinegar.
- Gently fluff up a steel wool pad (not a soap pad) by stretching it into a big, fuzzy ball.
- Use clay to stick the ball of steel wool to the bottom of a jar.
- Invert the jar into a pan with water in it. Mark the water level with a crayon.
- After several days, notice the appearance of the steel wool and the height of the water level.
- In light of what you have read about Lavoisier's ideas, explain what has happened to the iron and why the level of water has risen.
- How has the air in the inverted jar changed?
- How would you expect a burning candle to behave in this air?
- What would happen if you heated the rusty steel wool?

## Week Twenty-Two

### Day 1



**Science 7 for Young Catholics:** Review the chapter. Review the Chapter 7 Summary. Answer the Questions for Review, p. 176.

### Day 2



Review the chapter to prepare for the Chapter 7 Test.

### Day 3



Review the chapter to prepare for the test.

### Day 4



Review the chapter to prepare for the test.

### Day 5



**Take the Chapter 7 Test on Energy: Heat, Radio, Sound.** This test may be taken directly online.



# SCIENCE 7

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This Course Manual is the property of Seton Home Study School and must be returned to Seton when the course has been completed.

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

For more information, visit:  
[setonhome.org/return-lp](https://setonhome.org/return-lp)

## LIST OF COURSE MATERIALS

- *Science 7 for Young Catholics*



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