

**NOEO  
SCIENCE  
CHEMISTRY 3  
LAB MANUAL**



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LAB MANUAL**

Created by Dr. Randy Pritchard

**noeo science**  
MOSCOW, IDAHO

# Noeo Science Packages

## **GRADES 1-3 /**

### **AGES 5-8**

Biology 1

Physics 1

Chemistry 1

## **GRADES 4-6 /**

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Biology 2

Physics 2

Chemistry 2

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Physics 3

Chemistry 3

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**unit 1:**  
**A N C I E N T**  
**C H E M I S T R Y**

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# Week 1: Seven Ancient Metals

## Day 1 Worksheet

### SCHEDULE

	DAY 1	DAY 2	DAY 3	DAY 4
<i>Exploring the World of Chemistry</i>	Chapter 1: Ancient Metals	Chapter 1 Questions	Chapter 2: The Money Metals	Chapter 2 Questions

### OVERVIEW

Chemistry is not just something that started a couple of centuries ago when men began putting things in tubes and experimenting on them. The first act of chemistry was whenever someone first baked something. Chemistry is simply the study of the physical world and what it is made of.

Nowadays we know a lot more about the tiny things that make up our world, but scientists have been playing with metals for thousands of years. As you go through this year, your young chemist will learn about the science of chemistry and how elements combine to make up our world.

Remember that *science* can refer to two things: 1) science is the process we use to answer questions about the physical world we see around us (testing with experiments), and 2) science is the body of knowledge other people (scientists) have collected by using the scientific process (or scientific method).

## READING QUESTIONS

1. Where did ancient civilizations get their iron from?

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2. What is lead used for?

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3. How many of the ancient metals were you able to find?

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# Week 1: Seven Ancient Metals

## Day 2 Worksheet

### READING QUESTIONS

1. Use this space to answer the questions on p. 11 of Exploring the World of Chemistry.

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# Week 1: Seven Ancient Metals

## Day 3 Worksheet

### READING QUESTIONS

1. Write down the seven ancient metals with one of their uses.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

7. \_\_\_\_\_





## Week 1: Seven Ancient Metals

### Day 4 Worksheet

#### READING QUESTIONS

1. Use this space to answer the questions on p. 17 of *Exploring the World of Chemistry*.

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## Week 2: The First Elements

### Day 1 Worksheet

#### SCHEDULE

	DAY 1	DAY 2	DAY 3	DAY 4
<i>Exploring the World of Chemistry</i>	Chapter 3: The Search for Gold	Chapter 3 Questions	Chapter 4: Gases in the Air	Chapter 4 Questions

#### OVERVIEW

This week your child gets to learn about the discovery of the first element. Elements are the substances matter is made out of—an element cannot be broken down into a simpler substance by ordinary chemical means. They are the basic tools of chemistry.

#### READING QUESTIONS

1. What were the two non-metallic elements of the ancient world?

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2. What did alchemists think that the world was made of? How did this lead them astray?

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3. How did Robert Boyle define an element?

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4. What did he accomplish for chemistry?

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## Week 2: The First Elements

### Day 2 Worksheet

#### READING QUESTIONS

1. Use this space to answer the questions on p. 27 of *Exploring the World of Chemistry*.

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## Week 2: The First Elements

### Day 3 Worksheet

#### READING QUESTIONS

1. What element did Henry Cavendish discover?

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2. What is this element like?

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3. What element did Joseph Priestly discover?

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4. What is this element like? It is odorless, tasteless, and colorless.

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5. What element did Daniel Rutherford discover?

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6. What is this element like?

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## Week 2: The First Elements

### Day 4 Worksheet

#### READING QUESTIONS

1. Use this space to answer the questions on p. 35 of *Exploring the World of Chemistry*.

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