

**NOEO  
SCIENCE  
BIOLOGY 1  
LAB MANUAL**



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SCIENCE  
BIOLOGY 1  
LAB MANUAL**

Created by Dr. Randy Pritchard

**noeo science**  
MOSCOW, IDAHO

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**unit 1:**  
**WEATHER**

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# Week 1: The Atmosphere and Winds

## Day 1 Worksheet

### SCHEDULE

	DAY 1	DAY 2	DAY 3	DAY 4
<i>My First Book About Weather</i>	pp. 1-2	pp. 3-4	pp. 5-7	
<i>Ready-to-Read: Sun</i>		Read the whole book		
<i>Ready-to-Read: Wind</i>			Read the whole book	
<i>Experiments in Earth Science and Weather</i>				pp. 12-13
<i>Experiment Guide</i>				Blown Away!

### OVERVIEW

We mean two things when we talk about science. 1) Science is the process we use to answer questions about the physical world we see around us (testing with experiments). 2) Science is the body of knowledge other people (scientists) have collected by using the scientific process (or scientific method).

You have to admit that it is strange that the world is a place where one day warmth can come from the sky, another day water, and another day (in some places) ice and snow. In this unit you will learn about the atmosphere, which is what makes Earth's climate a place where life can flourish—so different from the Moon's climate, for example. This week we will answer the question every kid has had: What causes the blustery weather when it's windy outside?

## READING QUESTIONS

1. What is the earth's atmosphere made of?

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2. What are the four layers of the atmosphere?

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# Week 1: The Atmosphere and Winds

## Day 2 Worksheet

### READING QUESTIONS

1. According to *Ready-to-Read Sun*, what is the sun?

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2. What vitamin does the sun give us?

---





# Week 1: The Atmosphere and Winds

## Day 3 Worksheet

### READING QUESTIONS

1. According to *Ready-to-Read Wind*, does hot air go up or down?

---

2. Does cool air rise or fall?

---

3. What is made when hot and cold air trade places?

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# Week 1: The Atmosphere and Winds

## Day 4 Worksheet

### EXPERIMENT QUESTIONS: BLOWN AWAY!

1. Why does the pinwheel spin?

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2. What direction does the pinwheel spin?

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## Week 2: Clouds

### Day 1 Worksheet

#### SCHEDULE

	DAY 1	DAY 2	DAY 3	DAY 4
<i>Weather Clues in the Sky: Clouds</i>	pp. 4–11	pp. 12–19		pp. 20–21, Experiment
<i>Experiments in Earth Science and Weather</i>	pp. 8–9			
<i>Ready-to-Read: Clouds</i>			Read the whole book	
<i>My First Book about Weather</i>			pp. 8–9	
<i>Experiment Guide</i>	The Water Cycle			Make a Cloud

#### OVERVIEW

You might have looked for cloud shapes in the sky before. This week, you may be surprised to learn that clouds are made of water in the sky. How that water gets up there, though, is what you'll spend most of your time on this week, as you dive into the details of clouds and the water cycle.

## READING QUESTIONS

1. According to *Weather Clues in the Sky*, what are the three steps in the water cycle (see page 9)?

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2. What are the weather clues that Bel points out?

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## EXPERIMENT QUESTIONS: THE WATER CYCLE

1. Which washcloth dried the fastest?

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2. Which washcloth dried the slowest?

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3. Where did the water from the washcloths go?

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## Week 2: Clouds

### Day 2 Worksheet

#### READING QUESTIONS

1. Which clouds are thin and wispy?

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2. Which clouds are flat on the bottom and fluffy on top?

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3. Which clouds look like a gray blanket?

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There is no worksheet for Day 3.



## Week 2: Clouds

### Day 4 Worksheet

#### EXPERIMENT QUESTIONS: MAKE A CLOUD

1. What happened when you put the ice on top of the jar?

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2. Draw a picture of the results of this experiment.

3. Why did the cloud appear?

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