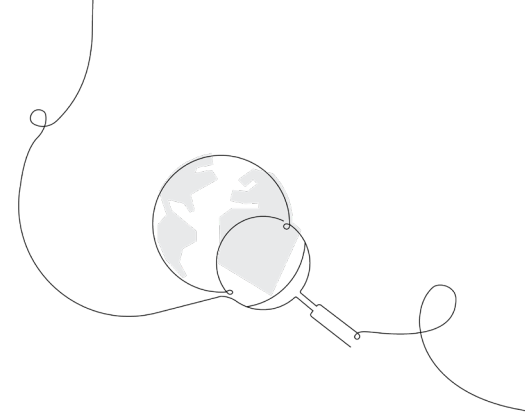


# Grade 4 Classroom Slides sampler



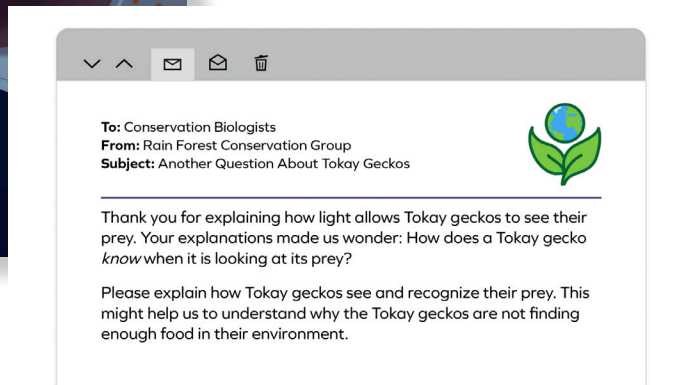
## Meet your new hands-free TG!

Science time just got a whole lot easier. With our new Classroom Slides, you can put down the Teacher’s Guide and focus on what matters most—your students. Plus, with Classroom Slides, lesson prep is as quick as a click!

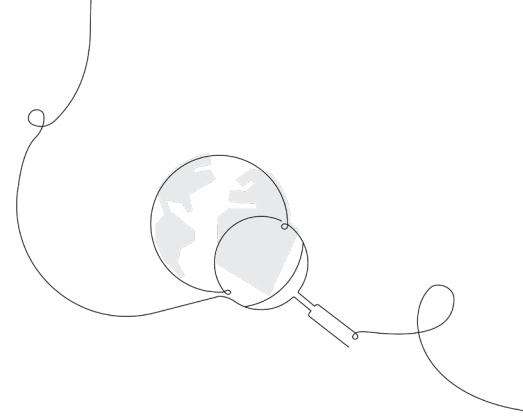
### Classroom Slides are:

- **Available offline**, which means no more sweating unreliable internet connections.
- **Streamlined for easy lesson delivery**, including lesson visuals, activity instructions and transitions, animations, investigation setup videos, technology support, and more.
- **Fully editable**, allowing you to incorporate your own flavor, flair, and favorite resources, such as Mystery Science.

This sampler includes slides from one lesson from the Vision and Light unit.

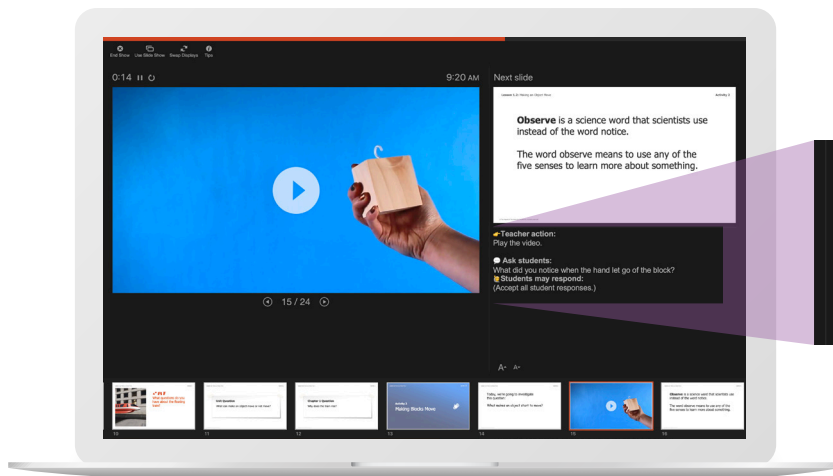


# Presenter view



When using presenter view you can:

- **Project the student-facing content** and
- **View your teacher notes**, including teacher talk, teacher actions, and potential student responses and
- **Preview the next slide.**

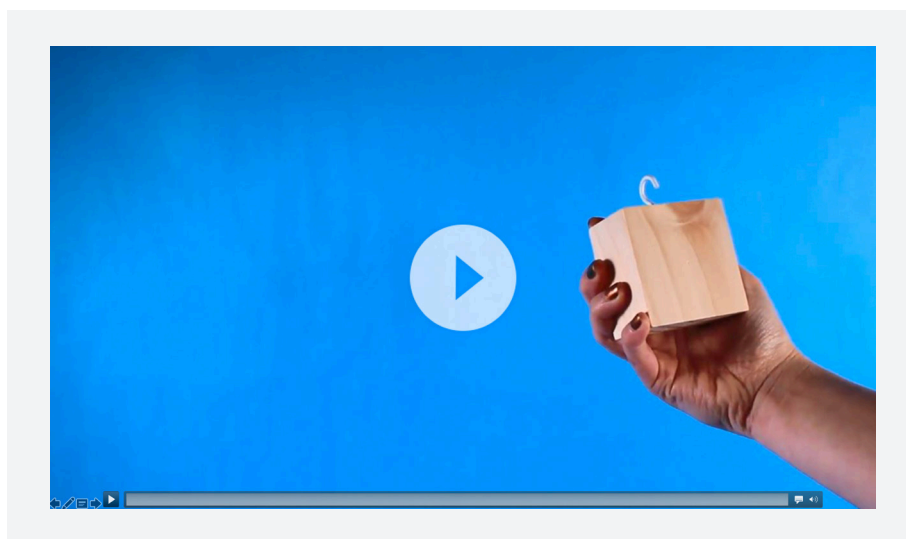


👉 **Teacher action:**  
Play the video.

💬 **Ask students:**  
What did you notice when the hand let go of the block?

👤 **Students may respond:**  
(Accept all student responses.)

Teacher view



Student view



**Lesson purpose:** For students to plan a successful investigation about human senses that changes only one variable at a time

Please refer to this lesson's Materials & Preparation section in the digital Teacher's Guide or the Print Teacher's Guide for information about preparing to teach this lesson, including any applicable safety notes.

**Activity 1**

**Sensitivity of Human  
Smell, Hearing, and  
Touch**



Our work as **conservation biologists** is done. Now we'll apply what we've learned to a new kind of animal: humans!

We'll get to **investigate our own senses**.

Let's look at some images **comparing** the **sensitivity** of human senses to other animals.



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A **dog** has a much more **sensitive nose** than a person. Dog noses can have as many as 300 million scent receptors while our noses only have 60 million.



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An **elephant** can **hear lower sounds** than a person.

The low sounds elephants make can be heard by another elephant six miles away!



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An **octopus** has more **touch sensitivity** than a person.

Each of the octopus's eight arms has hundreds of suckers that get information by touch.



**Suggested teacher talk:**

An octopus can also taste with its suckers!





## Chapter 5 Question

How do our senses help us understand our environment?

 **Teacher action:**

Post the Chapter 5 Question to the classroom wall and read it out loud.



What are you **wondering** about humans' sense of **smell, hearing, or touch**?

How could you **find out** the answers to your questions?



**Students may respond:**  
(Accept all responses.)

We learned about **vision** in a lot of detail as we explained the Tokay gecko problem.

Now we'll have the chance to learn more about **smell, touch, or hearing** by designing an investigation about how we use our senses to **learn about our environment**.

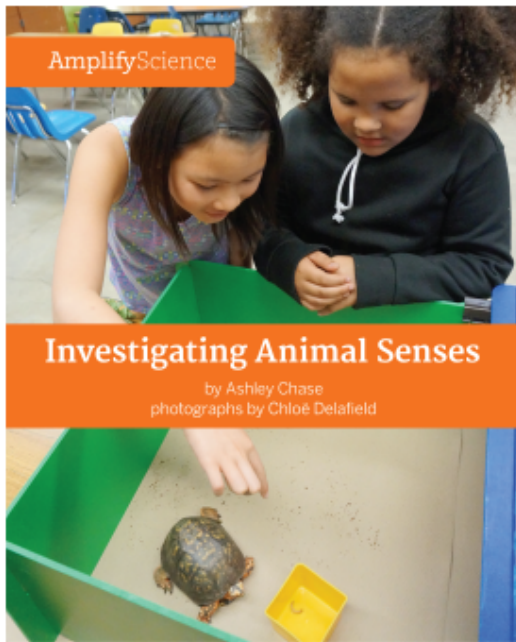


**Suggested teacher talk:**

When we were first learning about senses in the beginning of the unit, we got to explore items that sounded, smelled, and felt different.

**Activity 2**  
**Changing One Variable**





Reading and discussing parts of **Investigating Animal Senses** will help us plan our investigations.

👉 **Teacher action:**

Pass a copy of *Investigating Animal Senses* to each pair of students.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Changing Variables in Investigating Animal Senses**

1. Read pages 8–9 and 16–18 in *Investigating Animal Senses*.  
2. Discuss and answer the questions below.

**Getting Ready to Investigate (pages 8–9)**

Why is it important to choose your investigation materials carefully?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Investigating the Guinea Pig (pages 16–18)**

What were the students trying to find out?

\_\_\_\_\_

\_\_\_\_\_

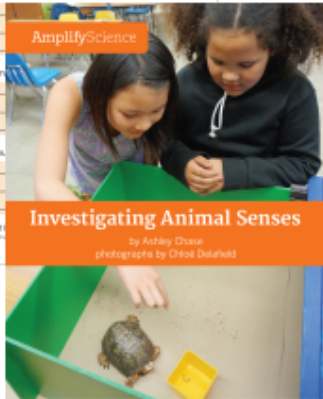
What did the students find out from \_\_\_\_\_

\_\_\_\_\_

Why were the students unsure about \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Turn to page 92 in your notebooks.



**Read** pages 8–9 and 16–18 of *Investigating Animal Senses* and **answer these questions.**



**Teacher action:**  
Review the directions.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

**Changing Variables in Investigating Animal Senses**

1. Read pages 8–9 and 16–18 in *Investigating Animal Senses*.
2. Discuss and answer the questions below.

**Getting Ready to Investigate (pages 8–9)**

Why is it important to choose your investigation materials carefully?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Investigating the Guinea Pig (pages 16–18)**

What were the students trying to find out?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

What did the students find out from the smell test?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Why were the students unsure about what they learned from the vision test?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

92 Vision and Light—Lesson 5.1  
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What did you write?



**Students may respond:**  
(Accept all responses.)



**Suggested teacher talk:**  
Changing only one variable is important in a scientific investigation so that you can tell if that change had an effect. Now that we've reviewed how to set up an investigation that changes only one variable, it's time to design your investigation about the sense of hearing, smell, or touch.

### Activity 3

# Focusing on a Sense to Investigate





Your group will be assigned to investigate one of the senses: **smell, hearing, or touch.**

First, you will **look at and discuss materials** you can use for your investigation.

 **Teacher action:**

Arrange students in groups of four and assign each group a sense to investigate. Make sure the groups are evenly distributed among the three senses.



These are the materials  
you'll use at the **Smell  
Station.**



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 **Teacher action:**

Point out the Smell Station and its materials.



These are the materials you'll use at the **Hear Station**.

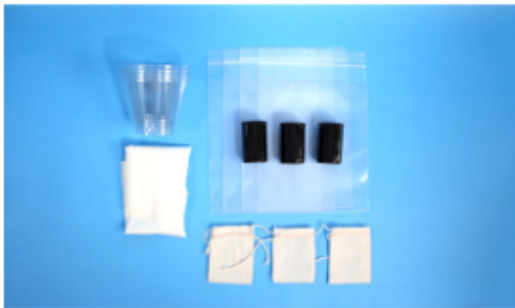


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**👉 Teacher action:**  
Point out the Hear Station and its materials.



These are the materials you'll use at the **Touch Station**.



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 **Teacher action:**  
Point out the Touch Station and its materials.

## Sense Investigation Materials



### Step 1

**Visit the Sense Station**  
your group is assigned to.



### Step 2

**Look carefully at the materials** you can use for your investigation, but don't touch them yet.



### Step 3

Discuss with your group which **materials** you might use for your investigation.

👉 **Teacher action:**

Have groups visit their sense station and discuss.

👉 **Teacher action:**

Have groups return to their seats or group work area for the next activity.

## Activity 4

# Planning an Investigation







What question will you investigate?

What **variable** could you **change** during your investigation?



**Teacher action:**

As students share, give feedback, or gather feedback on the variables from the rest of the class as appropriate. Guide students toward discussing variables that could be changed one at a time, such as blocking a sound or scent.



### How We Are Like Scientists

- We make and use models.
- We do investigations.
- We write scientific explanations.
- We ask questions.
- We change one variable at a time.

Changing only one variable is an important science practice that we will use in our investigations.



**Teacher action:**

Point to the How We Are Like Scientists chart and read out loud the fifth guideline.

## Key Concept

When scientists change only one variable in an investigation, they can figure out if it makes a difference.

 **Teacher action:**

Point to the key concept that you posted in Lesson 3.2 and read it out loud.

Make sure your investigation plan is **safe**.  
Do not put any materials in your ears or nose.

Date: \_\_\_\_\_

**Touch Investigation**

Date: \_\_\_\_\_

**Touch Investigation (continued)**

Date: \_\_\_\_\_

**Touch Investigation (continued)**

5. Write down all the steps you need to do to complete your investigation. Add more steps if you need them.

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

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

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

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

6. What will you observe and record in each test?

\_\_\_\_\_

7. What variable will you change between each of your tests?

\_\_\_\_\_

8. What will you keep the same between each of your tests?

\_\_\_\_\_

Moon and Light—Lesson 5.1



**Fill out** all three pages of your investigation plan.

**Take turns** writing in your group, and then turn in your plan when it's done.

 **Teacher action:**

Circulate and assist groups as needed. Encourage students to add more detail to their investigation plans if they finish early, or pair groups that finish early together so they can discuss their plans. Collect the student sheets at the end of the lesson.

**View your online Teacher's Guide for more resources**

# End of Lesson



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