

# Cricket Senses

**GRADE LEVEL:** 6th grade

**SCIENCE CONCEPT:** To teach students how to develop a hypothesis based on questions that they have and observations they make. As the California science standard states, “Scientific progress is made by asking meaningful questions.”

**RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS:**

7. Scientific progress is made by asking meaningful questions and conducting careful investigations. As a basis for understanding this concept and addressing the content in the other three strands, students should develop their own questions and perform investigations. Students will:

- a. Develop a hypothesis.

**LEARNING OBJECTIVE:**

1. Students will develop a hypothesis about crickets.

**EVALUATION IDEAS:**

1. formative: I will observe the students while they work in groups and observe the crickets. I will ask questions while they are working about what they are observing and what their predictions are. I will listen to the students share with the class what they observed.
2. summative: Students will turn in a worksheet labeling what parts of the cricket they think are used for what senses. Students will turn in a second worksheet with the hypothesis they developed.

**CONCEPTUAL BACKGROUND:**

Humans use our ears to hear, our eyes to see, our tongue to taste, our mouth to speak and our hands/skin to feel. Is that the same for all animals? How do other animals sense things? Scientists use the scientific method to learn more about the world around them. They ask questions and develop hypotheses, then test those hypotheses.

**LESSON IMPLEMENTATION PLAN:**

**ENGAGE** – To get students excited about the lesson allow them to come and briefly look at the crickets.

Ask them if they know what these animals are. Do they know what sound they make? Can the students make that same sound? Tell them that they will have an opportunity to work with the crickets later. You may want to read “A Pocketful of Cricket” by Rebecca Caudill. Encourage the students to respond to the story

**EXPLORE** –Ask the question, Do crickets use five senses? In groups, have the students observe crickets in the terrarium. Have them look for any evidence of crickets using their senses. Have students form predictions about how crickets might see, smell, hear, touch, or taste. Students will use the “Cricket Sense” worksheet to label what parts of the cricket they think it for what senses.

**EXPLAIN** – After they have observed the crickets students will have an opportunity to share what they wrote on the worksheet and explain why.

**ELABORATE** – Based on their observations students will fill out the hypothesis worksheet as homework and come up with a hypothesis about crickets. Students will be asked how they might test their hypothesis but they will not be allowed to actually test it. They can research the answer if they want.

## EVALUATE –

(a) summative: Students will turn in a worksheet with the hypothesis they developed.

(b) formative: I will observe the students while they work in groups and observe the crickets. I will ask questions while they are working about what they are observing and what their predictions are.

## DIFFERENTIATION PLANS:

Behavioral for Student A:

I will give the student a task, such as teacher helper passing out and collecting worksheets to make sure the student stays engaged. I will check in with the student and make sure the student stays on task.

Cognitive for Student B

I will make sure to place student in a group that will help the student stay engaged. I will verbally check with student to make sure student understands instructions and is on task.

Cognitive for Student C

I will provide the student with step by step instruction to help make sure they understand the assignment and feel comfortable doing it. I will check in with them during the lesson to make sure they are on track and understand the lesson.

Affective for Student D

I will make sure the student is in a group they feel comfortable with and I will check on the student throughout the lesson.

Language Demands for Students E

For a student who is learning English, I will provide a list of the different senses with an image for clarification to help the student fill out the cricket senses worksheet.

Language Demands for Students F

For a student who is learning English, I will write key words on the board and have everyone repeat the words together. I will keep the words posted on a word wall.

Language Demands for Students G

For a student who is learning English, I will allow them to explain their hypothesis to me orally.

## LIST OF MATERIALS (PER GROUP):

- the book "A Pocketful of Cricket" by Rebecca Caudill USBN 0805012001
- crickets
- pen or pencil
- cricket senses worksheet (1 per student)
- hypothesis worksheet (1 per student)

## DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

Students are not allowed to touch the crickets and should only observe them by looking at them.