

# What do Hissing Cockroaches Eat?

## An Elementary Science Lesson Plan Designed For Group Inquiry Based On The 5E Inquiry Model

**GRADE LEVEL:** 2nd

**SCIENCE CONCEPT (the Main Idea or Enduring Understanding):** Students will learn about the diet of Hissing Cockroaches. They will do so by investigating with different materials and through observation. They will learn that insects prefer certain foods just like humans.

### **RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS:**

4. 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. Make predictions based on observed patterns and not random guessing.

### **LEARNING OBJECTIVES:**

1. Students will identify what time of food Hissing Cockroaches eat through observation and will record their findings on a worksheet.
2. Students will then complete a creative writing assignment about their favorite food. (worksheet provided)

### **EVALUATION IDEAS:**

1. **Formative:** Students will document their observations on the given worksheet.
2. **Summative:** Students will orally discuss their findings and observations with the class. Students will then answer the questions following the exploration on the worksheet.

### **CONCEPTUAL BACKGROUND:**

Hissing Cockroaches are herbivores that enjoy fruits, vegetables and plant materials. Refer to Hissing Cockroach Information sheet for more information.

### **LESSON IMPLEMENTATION PLAN:**

**ENGAGE** – Live Hissing Cockroaches will be brought into the class for the introduction. The teacher will tell the students that some of the best known cockroaches are known as pest to your home because they compete with humans to eat the food in their homes. However, Hissing Cockroaches live in the wild, so what do you think they eat?

**EXPLORE** – Students will explore with different types of food to determine what Hissing Cockroaches prefer to eat. Each group of students will be given a container with one hissing cockroach. In the container will be a piece of fruit, leaves, marshmallow, and cracker. Students will then observe the cockroaches as they eat what is in the container.

**EXPLAIN** – Students will discover that the Hissing Cockroaches chose the fruit and leaves to eat over the marshmallow and cracker.

**ELABORATE** – Hissing Cockroaches live in the wild so they are going to find natural foods to survive. Processed food such as the marshmallow and cracker are not natural made so these products would not be found in the wild. A cockroach will prefer plants and fruits over human food.

**EVALUATE** – Students will discuss their observations and be able to answer the following questions:

1. What do hissing cockroaches eat?
2. What types of food does hissing cockroaches prefer?

### **DIFFERENTIATION PLANS:**

**Behavioral for Student A:** Students should be strategically grouped. Students with behavioral issues can work with teacher or assistants.

**Cognitive for Student B:** RSP student will be work with a partner.

**Cognitive for Student C:** Students who struggle with writing can use pictures and drawings to explain their observations for assessment.

**Affective for Student D:** Students can be strategically group with learning levels and behavior issues in mind. Students can be given certain roles in their groups according to their strengths. (Facilitator, Materials Manager, Reporter and Recorder, etc...)

**Language Demands for Students E, F, G:** Introduce academic vocabulary with pictures and a word wall. Students can orally discuss their observations with the teacher or group and have a recorder in the group.

### **LIST OF MATERIALS (PER GROUP):**

Hissing Cockroaches

Food: piece of fruit, leaves, marshmallow, and cracker

Escape proof container

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

No touching of the Hissing Cockroaches, only observing.

**Reference:** Oakland Teacher Entomology Resources: [www.bugpeople.org](http://www.bugpeople.org)

**Name:** \_\_\_\_\_

**What's your Favorite Food?**

We just learned about what Hissing Cockroaches eat. Now you will write about your favorite food. What is your favorite food to eat?

My favorite food to eat is

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Name/ Team:

The Hissing Cockroach will probably prefer to eat:



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



Name/ Team:

The Hissing Cockroach will probably prefer to eat:



\_\_\_\_\_

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\_\_\_\_\_