

TASTY!

An Elementary Science Lesson Plan
Designed for Inquiry
Based on the 5E Inquiry Model

GRADE LEVEL: 5**INQUIRY LEVEL:** Structured Inquiry**SCIENCE CONCEPT:** Digestion/Taste**RELATIONSHIP TO CALIFORNIA CONTENT STANDARDS:**

2.c. Students know the sequential steps of digestion and the roles of teeth and the mouth, esophagus, stomach, small intestine, large intestine, and colon in the function of the digestive system.

LEARNING OBJECTIVES:

1. Students will create a picture showing how human's taste food compared to how lizard's taste food.

EVALUATION IDEAS

1. *Formative:* During the initial class discussion, students' responses can be evaluated to determine their prior knowledge of the topic of digestion and specifically taste.
2. *Summative:* The final assessment is the product that the students are producing during the lesson. They can be evaluated on correct content and level of effort.

CONCEPTUAL BACKGROUND:

Digestion is a complex process that involved multiple stages. Digestion starts when food is put into the mouth as a person, animal, or reptile eats. As digestion is centered around the consumption of food, you could say that tasting is the catalyst that gets the system going.

LESSON IMPLEMENTATION PLAN:**ENGAGE***Class Discussion*

- What do we use to detect taste of a food?
 - Do you think all living things detect taste in the same way?
 - What about reptiles? Do you think they use the same methods to taste as humans?
 - Why is the ability to taste important to humans and reptiles?
- (Tells us if things are good/safe to eat or not)*

EXPLORE*Create Visuals*

1. Instruction: Humans and lizards have different ways of detecting taste. As humans we use taste buds. Lizards use a special part called their Jacobson's organ, which is located on the roof of their mouth.

2. Students will create a visual showing what humans use to detect taste.
 - a. Students will use the provided worksheet depicting the human tongue to draw on taste buds.
3. Students will create a visual showing where the Jacobson's organ is located on a lizard.
 - a. Students will use the provided worksheet depicting a lizard to show where the Jacobson's organ is located.

EXPLAIN

1. Students will label both of their illustrations and write a sentence or two describing what it shows.
2. Ask them to start thinking about the differences or similarities they notice between the two species and the parts they use to taste food and decide if it is edible.

ELABORATE

1. Have students write about why we have the ability to taste and the purpose it serves for both humans and reptiles. (Hint: the purpose is similar for both)
 - Why is it important to for animals and reptiles to be able to taste? Does it serve as a method of protection? Does it help you decide what to eat and what not to eat?
2. Have the students wrap-up the lesson by sharing their illustrations and ideas about the prompts above.

EVALUATE

1. *Summative*: The final assessment will be done by looking at the students' illustrations and writing.
 - a. *Did they illustrate label the correct parts?*
 - b. *Were they able to write about the differences and similarities?*
 - c. *Did they put forth their best effort?*
2. *Formative*: class discussions
 - a. What do students know at the beginning of the lesson?
 - b. How does it compare to what they have learned by the end of the lesson?

DIFFERENTIATION PLANS

Behavioral: This lesson requires students to sit and concentrate for long periods of time. For a student with behavior difficulties you can allow breaks to chunk the work into more manageable portions. For chatty students, you could also include strategies such as pair-share to get the students talking with each other while also staying on task.

Cognitive: The writing portion of this lesson can be scaffolded to fit the needs of students who may need additional support. You could provide sentence starters or even cloze sentences depending on the level of the student's needs.

Affective: To provide for those students who may have emotional difficulties, be sure to provide plenty of positive support and guidance. Involve peers in the process as well to help the student feel included and safe in the classroom.

Language Demands: For students who require additional support for language demands, you can provide sentence stems or a word bank for them to reference as they are working. You can also make a visual for key vocabulary, such as taste, that includes pictures and examples to help students better understand the concept.

LIST OF MATERIALS:

- Diagram of a Lizard's Anatomy
(One poster or a few copies for the entire class to reference the Jacobson's organ)
- Worksheets (3)
- color pencils/crayons/markers
- pencils