

LESSON PLAN: Snakes vs. Lizards
An Elementary Science Lesson Plan
Designed For Group Inquiry
Based On The 5E Inquiry Model

GRADE LEVEL: This lesson is designed for a kindergarten classroom. **(Guided)**

SCIENCE CONCEPT (the Main Idea or Enduring Understanding):

This lesson will help students understand the purpose of observation, how to observe a living creature and how to form questions based on observations.

RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS:

2.a. Students know how to observe and describe similarities and differences in the appearance and behavior of plants and animals (e.g., seed-bearing plants, birds, fish, insects).

LEARNING OBJECTIVES:

1. Students will give two examples for how Schneider's skink is different and the same as a snake.

EVALUATION IDEAS:

1. formative:

The formative assessment should focus on if the students can observe the Schneider's skink and snake chosen by the teacher. One way to do this is to assess the students as they are observing the animals and check what they are writing to confirm they are only writing what they can observe. Additionally the teacher should evaluate if the student is able to give examples of the differences and similarities between the animals. Depending on their level of writing, teachers can allow students to draw and or verbally give their answers in order to evaluate the students.

2. summative:

The first part of the lesson, students are asked to observe the two animals. Teacher should walk around and check that they understand and are able to communicate what they are observing verbally and on their worksheet. Additionally teachers should check for understanding by asking each student questions during class discussion.

CONCEPTUAL BACKGROUND:

Observation is a skill needed to explore nature and science. Observation uses all or some of our five senses to gain knowledge, understanding and data about the world around us. One use of observation is to understand the similarities and differences among different species of animals. Animals differ and are similar in different ways such as: eating preferences, sleeping preferences, physical characteristics, mating, communication to other animals or predators and movement.

LESSON IMPLEMENTATION PLAN: The students will work in pairs as they observe and discover how the Schneider's skink is similar and different to snakes.

ENGAGE –

The teacher will read the book, *The Year At Maple Hill*. While reading the book the teacher will ask the students, what animal is this? How do you know? The teacher will ask how is one animal different than the other? The teacher will let each student have a chance to answer before moving on. The teacher will tell the students that today we are going to watch a snake and a lizard, Schneider's skink.

EXPLORE –

Students will work in pairs. Each student will be given an observation sheet for the Schneider's skink and snake. Students will be told they need to answer how the Schneider's skink is different from a lizard and how it is the same. The teacher will tell them that they have access to watch Schneider's skink and a live snake, which is up to the teacher, which one they want to use in class and videos set up on the computer. The teacher will have each pair of students present their answers to the class. The teacher will write down each answer on the board. The teacher will lead a class discussion on, how much information they were able to gain from observation and the many differences and similarities between the two animals. The teacher will keep the discussion open until every student is able to understand observation and that snakes and lizards have similarities and differences.

ELABORATE –

The teacher will elaborate on the different observation the students had working on this lesson. The teacher will focus on the importance of observation, because of the different aspects each person sees and thinks is important.

EVALUATE –

(a) summative -

	 1	 2	 3	
Observation sheet	Student wrote 0-2 observations.	Student wrote 3-5 observations	Student wrote 6 or more observations.	
Students verbally answer questions on how lizards and snakes are different	Student is unable to answer questions.	Student answers question but also has some incorrect answers.	Student correctly answers questions during group discussion.	

(b) formative –

	 1	 2	 3	score
Examples for differences between Schneider's skink and snake.	Student gives 0-1 examples for differences between Schneider's skink and snake.	Student gives 2- 5 examples for differences between Schneider's skink and snake.	Student gives 6 examples for differences between Schneider's skink and snake.	
Examples for similarities between Schneider's skink and snake.	Student gives 0-1 examples for similarities between Schneider's skink and snake.	Student gives 2-5 examples for similarities between Schneider's skink and snake.	Student gives 6 examples for similarities between Schneider's skink and snake.	

DIFFERENTIATION PLANS:**Behavioral for Student A**

One common issue with students with behavioral disabilities is low attention spans. The teacher will model good behavior with the other students. The teacher will move the student away from friends that encourage the behavior and place the student in the front of the room with attentive and quiet students. The teacher will give positive reinforcement when the student is modeling good behavior.

Cognitive for Student B

One common issue with students with cognitive disabilities is having diminished ability to read. The teacher will pair the student with someone who can read and have the student draw and verbally explain their answers.

Cognitive for Student C

Common problems for students with cognitive disability have issues with short term memory. The teacher should repeat the steps and have them repeat back what they need to do. The teacher would remind her and the rest of the class what they need to do when they move from one step to another. The teacher will also have word walls on patterns and basic information of the Schneider's skink as a reinforcement of important concepts.

Affective for Student D

A common problem for students with affective disabilities is being overly shy and withdrawn from other students. The teacher will encourage inclusion for the student. The teacher will check and encourage the student to interact in groups. If speaking in large groups causes anxiety, the teacher can modify it by allowing the student to speak in front of a small group of peers or to record their voice ahead of time.

Language Demands for Students E, F, G

For these students, the teacher will focus on reinforcing the word "pattern". The teacher would make sure that there is a word wall with examples of patterns and shapes. When talking to the class the teacher would try to use simple words. The teacher will give them a choice of responding verbally, drawing the picture or writing a word.

LIST OF MATERIALS (PER GROUP):

- Pencils
- Worksheet: Snake observation
- Worksheet: Schneider's skink observation
- Worksheet: Pattern Comparing the Snake with the Schneider's skink

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

- **Students can't handle or touch animal or its cage.**