

## **Lesson 7: Camouflage in Snakes**

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

**GRADE LEVEL:** This lesson was designed for a 5<sup>th</sup> grade class.

**SCIENCE CONCEPT:** This lesson is intended to have students formulate their own questions about camouflage and to facilitate their own learning without teacher prompting.

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

6. 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

#### **LEARNING OBJECTIVES:**

1. Students will generate their own questions about snakes and camouflage.

#### **EVALUATION IDEAS:**

1. formative: Students participate at the 5 stations.
2. summative: Students create a project on the why it is essential for snakes and to have camouflage.

#### **CONCEPTUAL BACKGROUND:**

Animals throughout the world use camouflage to protect themselves from predators or sneak up on their prey. Color can be used in an animal's camouflage as well as their outer texture (fur, feathers, scales, etc). Some animals even change their colors to blend into their environment. Although an animal has camouflage it does not mean it is successful. As the world changes, animals must change as well to find a successful way of hiding itself.

**LESSON IMPLEMENTATION PLAN:** This lesson is designed for an individual inquiry, level 4 activity. Students will be able to investigate the different stations on their own and create a project on why snakes need camouflage with the information gathered from the stations.

**ENGAGE-** I will ask students open questions about snakes and their habitats without specifically saying which answers were right or wrong.

**EXPLORE-** There will be 5 stations students can explore on their own. The first station will contain pictures of a Pacific Gopher snake and Corn snake in their natural environments. The title will be "Find the Snake." Station 2 will have two picture books where students can look at the pictures and search for the hidden animal. The books are *Where in the Wild? Camouflage Creatures Concealed... and Revealed* by David M. Schwartz, *Where else in the Wild? More Camouflaged Creatures Concealed... and Revealed* by David M. Schwartz, *Hiding Out:*

*Camouflage in the Wild* by James Martin and *Animals with Crafty Camouflage* by Susan K. Mitchell. The title being “Camouflage Books.” Station 3 will contain white paper and writing utensils. Students will draw their own habitat with a camouflaged animal. The title of the station will be “Make your own Camouflage Animal.” Station 4 will have a picture of different habitats and white paper. Students will draw in an animal they think could camouflage into its environment. The title of the station is “Draw Your Own Animal.” The last station will have paper for students to write their own camouflage stories. The title of the station will be “Write a Camouflage Story.”

EXPLAIN- After the stations I will explain that many animals use camouflage to protect themselves against predators and to sneak up on their prey.

ELABORATE- To elaborate on the learning of the same concepts in different concepts, I will ask students to give examples of other animals that use camouflage. Next students will show why camouflage is essential for snakes. Students could work in groups or individually and the projects could be a poster board, skit, oral presentation, a drawing, or anything else.

EVALUTE-

1. formative: Students participate at the 5 stations.
2. summative: Students create a project on the why it is essential for snakes and to have camouflage.

### **DIFFERENTIATION PLANS:**

#### Behaviors for Student A

If a student consistently did the opposite of what was told, I will monitor what they are doing during the lesson and check in frequently to see if they are on task or not.

#### Cognitive for Student B

If a student needs extra-time, I will allow for time later in the day for students to go back to the stations if they want to. Also, there will not be a requirement to finish a station or a minimum number of stations that need to be completed.

#### Cognitive for Student C

If a student finishes all the stations, I will have them go back to the station they liked the best and spend some more time exploring it.

#### Affective for Student D

If a student does not appear to show a real interest, I will have them create a station on their own relating to camouflage.

#### Language Demands for Students E, F, G

If a student has no English skills, I will have the titles to the stations and key content vocabulary in their native language.

If a student has some English skills but was not advanced, I will have some of the titles to the stations in their native language and in English. Sentence stems will be provided for the writing station, such as the following:

- “The snake had no camouflage because \_\_\_\_\_.”
- “Henry the snake had the best camouflage in the forest because he was \_\_\_\_\_.”

If a student has advanced English skills, I will have some of the station titles be in their native language and in English. Sentence frames will be provided at the writing station:

- “Sophie the snake has some of the best camouflage because she was \_\_\_\_\_ and \_\_\_\_\_.”
- No one saw the snake in the corner because it was \_\_\_\_\_ and \_\_\_\_\_.”

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

1. Paper
2. Writing utensils
3. *Animals with Crafty Camouflage* by Susan K. Mitchell
4. *Where in the Wild? Camouflage Creatures Concealed...and Revealed* by D.M. Schwartz
5. *Where else in the Wild? More Camouflaged Creatures Concealed... and Revealed* by D. M. Schwartz
6. *Hiding Out: Camouflage in the Wild* by J. Martin.