LESSON PLAN: Camouflage

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 camouflage and that animals can share similar and or different ways to camouflage in different environments.

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 match 3 animals to the correct camouflage environment based on their body color and or patterns.

EVALUATION IDEAS:

1. formative:
The formative assessment should focus on if the students can correctly draw and color an environment that would camouflage the animal. One way to do this is to assess the student's ability to pick colors close to the skin of the Alligator Lizard. Additionally the teacher can grade whether they can match the correct animal card to the environments posted around the room.

2. summative:
For the first part of the lesson, students are asked to match animal cards to the correct environment on worksheets after exploring the various environment posters around the room. Teacher should walk around and check that students are identifying the colors on the animal's skin or fur with the colors in the various environments. Additionally teachers should check for understanding by asking each student questions during class discussion

CONCEPTUAL BACKGROUND:
Camouflaging is a strategy used by animals and even people in order to hide. Many animals have feathers, fur, scales, plates and skin that match the environment that they
live in. Two purposes for camouflage are hiding prey from predators or hiding predators from prey. In this lesson teacher must understand the concept of camouflage and habitat.

LESSON IMPLEMENTATION PLAN: The first parts of the lesson, where they pick up animal cards and find an environment that can camouflage the animal can be camouflaged and completing the animal camouflage sheet will be done in pairs. The last part, where the students observe the animals and draw an environment that the alligator lizard can make a habitat will be done alone.

ENGAGE –
The teacher will read the book, I See Animals Hiding. The teacher will ask the students, how are the animals hiding? The teacher will ask students to point out examples and or tell their opinion on different examples of animals using camouflage.

EXPLORE –
In pairs students will be handed the Camouflaging Animals worksheet and Animal Picture worksheet. Students will cut out the animals from the animal picture worksheet. In pairs the students will use the pictures to find a picture posted on different parts of the room of an environment that each animal can camouflage in. The students are given no advice or process to figure it out. At each poster the students will pick up a small picture of the environment and paste it to the Camouflaging Animals worksheet with the animal next to it. The teacher will then hand out, Alligator Lizard’s new home work sheet. Each student will observe the alligator lizard for 20 minutes and then draw an environment that would camouflage the lizard.

EXPLAIN –
The teacher will have each pair of students present the Camouflaging Animals worksheet. The students will explain why they matched each animal to each environment. The teacher will lead a class discussion on the different ways animals hide themselves based on the evidence the students presented. The teacher will keep the discussion open until every student is able to understand what camouflage is and how it differs from animal to animal.

ELABORATE –
The teacher will elaborate on the purpose of camouflage for animals. The teacher will have students elaborate on the advantages for using camouflage for prey animals and predators.
### (a) summative -

<table>
<thead>
<tr>
<th>Observation sheet</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student wrote 0-2 observations.</td>
<td>Student wrote 3-4 observations</td>
<td>Student wrote 5 or more observations.</td>
<td></td>
</tr>
<tr>
<td>Students verbally answer questions on patterns during class discussion.</td>
<td>Student is unable to answer questions.</td>
<td>Student answers question but also has some incorrect answers.</td>
<td>Student correctly answers questions during group discussion.</td>
</tr>
</tbody>
</table>

### (b) formative -

<table>
<thead>
<tr>
<th>Matching animal to environment</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student matched 0-2 animals with an environment that camouflages it.</td>
<td>Student matched 3-4 animals with an environment that camouflages it.</td>
<td>Student matched 5 animals with an environment that camouflages it.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing the environment the Alligator Lizard could live in.</td>
<td>Students didn’t draw and color an environment appropriate for the alligator lizard.</td>
<td>Students drew a mostly accurate environment for the alligator lizard.</td>
<td>Students drew an environment that the lizard could live in based on its coloring.</td>
<td></td>
</tr>
</tbody>
</table>
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 student A 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 the student 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 speech 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):

- A set of crayons
- tape or glue
- Precut animal pictures from worksheets below
- precut environment pictures from worksheets below
- Worksheet: Camoflaughing animals
- Worksheet: Alligator Lizard’s new home

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.
• Students can't handle or touch animal or its cage.