

“Lizards with Shapes”

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

GRADE LEVEL: Kindergarten (**Structured**)

SCIENCE CONCEPT (the Main Idea or Enduring Understanding): This lesson is structured for students to investigate the conception that different geometric shapes can be found on lizards.

RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS:

Kindergarten Investigation and Experimentation:

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:

d. Compare and sort common objects by one physical attribute (e.g., color, shape, texture, size, weight).

LEARNING OBJECTIVES:

1. Students will identify and color the different shapes they see on a given print-out of a lizard.

EVALUATION IDEAS:

1. Summative – Holding up images of shapes, ask the class if these shapes can be found on lizards (yes). Students who drew each shape discussed in the lizard outlines can hold up their illustration to confirm with the class that each shape can be found on lizards.

2. Formative – Using an outline of a lizard, assign each student a shape and have students fill in the lizard drawing the given shape. Once complete, have students find classmates whose lizards have the same shape attribute.

CONCEPTUAL BACKGROUND:

Lizard – reptile with four legs, two moveable eyes and tail

Characteristics - features that help us describe something

Shapes – physical characteristic of an item

LESSON IMPLEMENTATION PLAN:

ENGAGE – Draw shapes (triangle, square, circle, diamond, and rectangle). Turn to the class and ask them to describe what they see and if they can see the same shape they’ve identified in their classroom.

EXPLORE – Show the picture of the alligator lizard from National Geographic. If applicable, hand each student a copy of the picture or project the image for the entire class to see. Ask students to identify any shapes they see on the picture. As the class identifies shapes ask them to circle the shapes on handout 1 attached. If the shape was not found, provide students with the opportunity to explore their classroom to find where these other shapes can be.

EXPLAIN – Discuss with students that shapes are every where they see. The alligator lizard shown has several shapes that help create its body. Outline or color in the shapes on the alligator lizard. Check to make sure students understand by having them confirm your identification and guide them to discover more shapes on the lizard. If applicable, call on several volunteers to share what shapes they found around the class that were not found on the lizard.

ELABORATE – Using an outline of a lizard, assign each student two shapes and have students fill in the lizard drawing the given shape. Once complete, have students find the classmates whose lizards have the same shape attribute.

EVALUATE –

1. Summative – Holding up images of shapes, ask the class if these shapes can be found on lizards (yes). Students who drew each shape discussed in the lizard outlines can hold up their illustration to confirm with the class that each shape can be found on lizards.

2. Formative – Using an outline of a lizard, assign each student a shape and have students fill in the lizard drawing the given shape. Once complete, have students find classmates whose lizards have the same shape attribute.

DIFFERENTIATION PLANS:

Behavioral for Student A – With this particular lesson, students will be engaged and demonstrating comprehension in many ways. Students who may show behavioral issues may not fully comprehend the material or may a bit of a challenge. Ask Student A to demonstrate a problem or have them help in examples for the class. Make sure student A was a working role whether it be passing/collecting papers or checking on the pet lizard if still in classroom.

Cognitive for Student B – Student B may not be a visual learner. This student would need written text to better understand what’s being taught. Have this student label the different lizards shown and/or the different shapes.

Cognitive for Student C – This student may need written step by step instructions to refer to which may benefit other students. Project instructions, provide examples, and continue to verbally repeat what’s expected of each student. This student may also benefit with working with a partner to make sure they are following along.

Affective for Student D – Student D may need to have a further connection of their personal lives to fully comprehend the material. Ask this student what shapes they see at home or if they’ve ever played hide in seek along with their strategies. This student may also benefit in discussing how lizards and/or shapes make them feel (i.e. “A circle makes me feel happy”)

Language Demands for Students E, F, G

Lizard – Image

Characteristics – Word Wall or connecting the question of “What does it look like?”

Shapes – Word Wall, manipulative of solid shapes that students can touch/use

LIST OF MATERIALS:

1. Handout 1 and 2 (attached)
2. Pencils
3. Free Printable Shape Book (About.com)
<http://math.about.com/library/shapebook.pdf>
4. Image of Alligator Lizard (National Geographic)
<http://ngm.nationalgeographic.com/ngm/photo-contest/2011/entries/91045/view/>

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

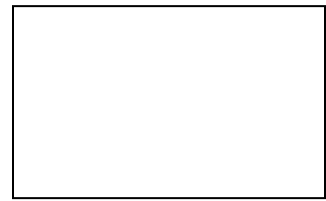
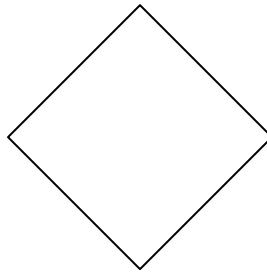
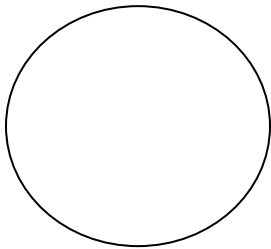
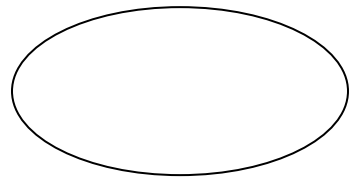
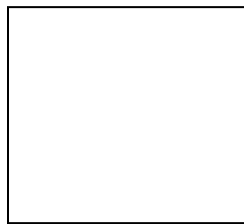
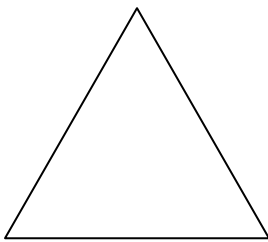
For each handout, do not pass out until students are to begin working on it. Images and other factors may cause a distraction for the lesson

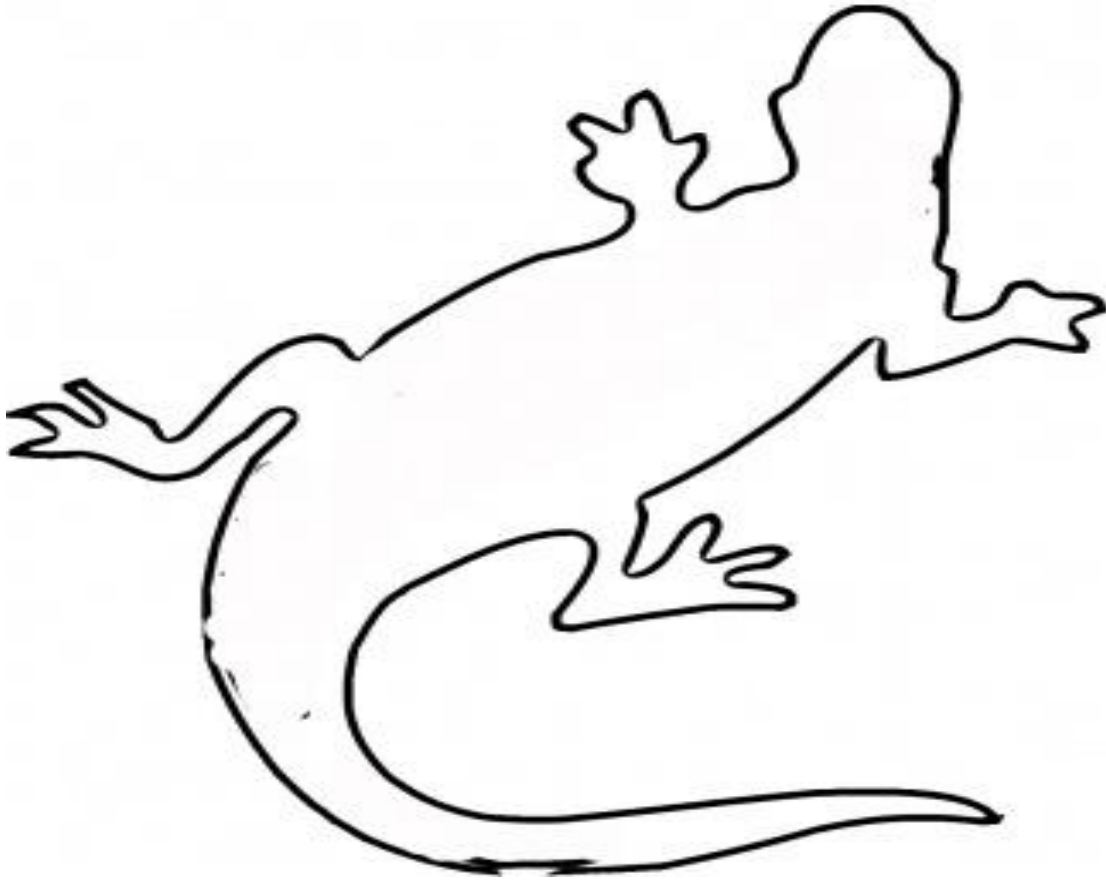
Name: _____

Date: _____

That lizard has

Circle as many shapes as you can find on the lizard





My Lizard has these 2 shapes

