

TURTLE EXPLORATION

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

GRADE LEVEL: 7th Grade

SCIENCE CONCEPT (the Main Idea or Enduring Understanding): turtles are complex creatures that require a variety of resources to survive. Various turtle species are unique in their appearance and lifestyle.

RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS: 7.7. e.
Communicate the steps and results from an investigation in written reports and oral presentations.

LEARNING OBJECTIVES:

1. Students will orally share ONE observation they have made in each turtle investigation station using notes.

EVALUATION IDEAS:

1. formative:
 - orally sharing personal impression/ inferences of turtle stations.
2. summative:
 - teacher will assess students' observations when they complete their worksheets at the end of the lesson.

CONCEPTUAL BACKGROUND: Turtles and tortoises are scaly, shelled reptiles that share common characteristics. However, turtle habitats vary from dry deserts to wet riverbanks. Different turtle species also vary in diet and defense techniques.

LESSON IMPLEMENTATION PLAN:

ENGAGE –

1. The teacher will not provide prior instruction to the students and let them explore and figure out (infer) about turtles. Let them play!
2. To set up the classroom, the teacher must prepare 7 to 8 investigation stations (about 4 children per group). You can group tables or line up stations along the walls (to avoid traffic flow during transitions periods).
3. The teacher will set up the following stations of open investigation:

- Station1: Pictures- print out detailed pictures of various species of box turtles (about 4 to 6 pictures). Make sure to label each picture so student can reference them later. Lay them out on the table.
- Station 2: habitat 1- river/ pond- simulate a pond with dirt or sand and water. Add in aquatic plants and rocks for a realistic habitat.
- Station3: Food - display various foods that turtles eat; Bananas, lettuce, turtle food, plants. (The teacher can even include bugs if available).
- Station 4: Pictures (Tortoise) - print out detailed pictures of various species of tortoises (about 4 to 6 pictures). The teacher should label each picture so student can reference them later. Lay them out on the table.
- Station 5: shells/ skeleton- present various shells and skeletons of turtles. ** check out from SERC.
- Station 6: habitat 2-dessert- display pictures of dessert turtles in their habitat. (Or use real sand for effect). Also, include a marked map to show deserts inhabited by specific turtles.
- Station 7: Pictures (sea turtle) - print out detailed pictures of sea tortoises (about 4 to 6 pictures). label each picture so student can reference them later. Lay them out on the table.
- Station 8: real turtle! The teacher will leave the turtle or tortoise in its cage and make sure to include a label with species name and a clear "DO NOT TOUCH" sign. Children should only use their eyes to observe. **check out from SERC.

EXPLORE –

1. After setting up the stations the teacher will allow students to explore the stations. They will have about 5 minutes in each station to observe and explore.
2. After each group has been to each station invite the students to sit down in their seats.

EXPLAIN –

1. the teacher will go to each station and encourage feedback from the students; (what do you think this station is about? What did you learn? What was interesting?). Make sure to reveal what the main theme of each station was to clarify to the students what they were actually looking at.

ELABORATE –

1. When the class is finished sharing, the teacher will pass out worksheets and let them express which station(s) interested them the most.
2. Have them fill out the question sheet for possible expansion of inquiry.

EVALUATE – check to see worksheets if children have filled them out. Use discretion to see if they have made inferences.

(a) summative :

- Orally sharing personal impression/ inferences of turtle stations.

(b) formative :

- Teacher will assess students' observations when they complete their worksheets at the end of the lesson.

DIFFERENTIATION PLANS:

Behavioral for Student A:

- This student explores the stations individually, or has additional assistance from the teacher.

Cognitive for Student B

- An additional worksheet can be provided to help them take notes during the observation.

Cognitive for Student C

- Word strips can be provided in each station for the students to take to keep as notes.

Affective for Student D

- This student does not have to share out their responses if they do not feel comfortable.

Language Demands for Students E, F, G

- All stations will be labeled with simplified terms
- A word wall will be provided with pictures for students to use as a reference.
- They can fill out worksheets with drawings instead of words.

LIST OF MATERIALS (PER GROUP):

- see station set up under ENAGE portion.
- All materials can be found online (see reference page) or can be checked-out from SERC.

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

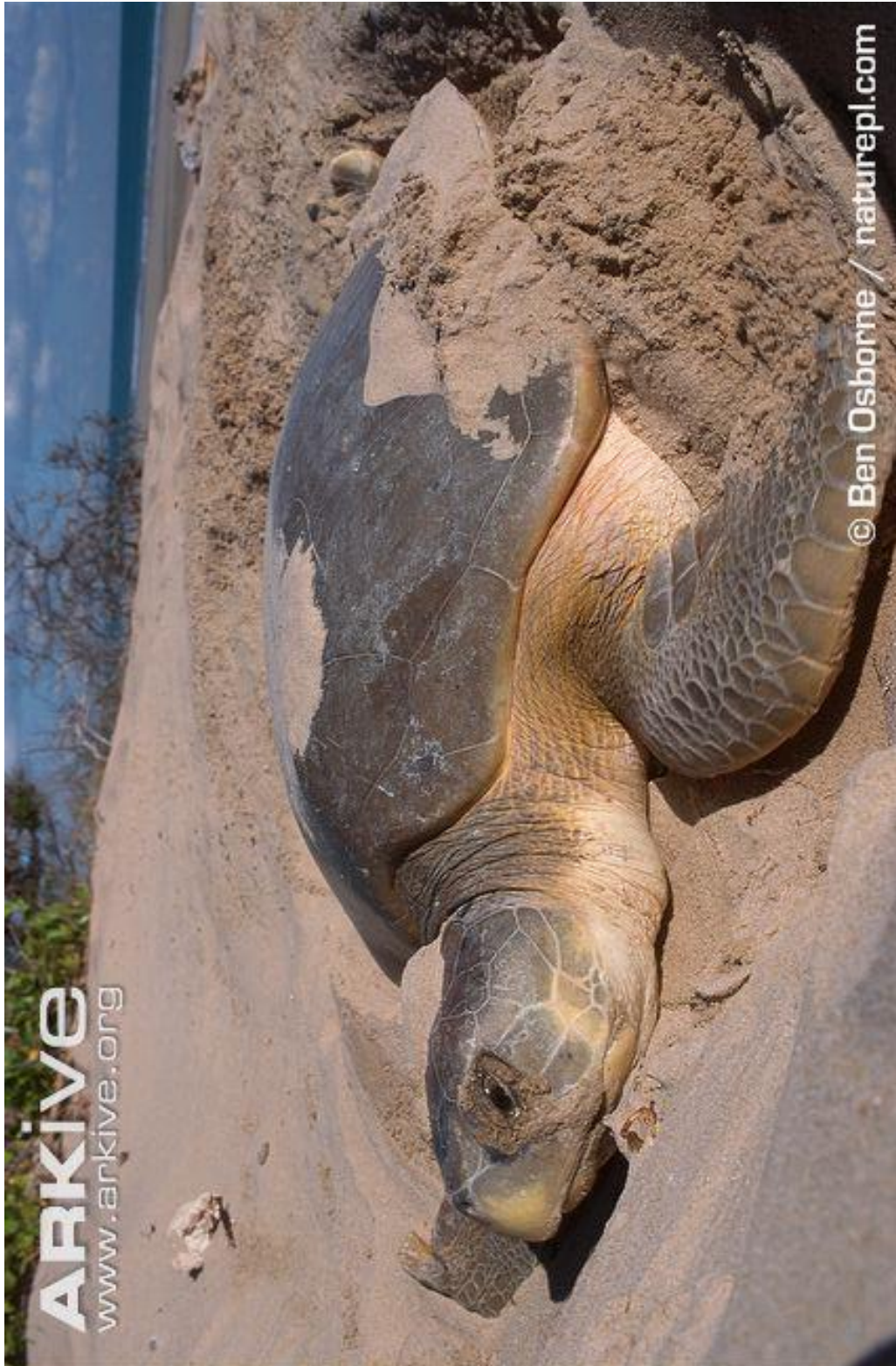
-NONE



Desert Tortoise



TEXAS TORTOISE



Female flatback turtle digging nest



Red-eared slider ssp. *elegans* close up of head, captive



Ornate box turtle



Horsfields (Russian) Tortoise