

TURTLE DEFENSE STRATEGIES

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 use various ways to defend themselves from predators in the wild.

RELATIONSHIP TO CALIFORNIA SCIENCE CONTENT STANDARDS: 7.7.b. Use a variety of print and electronic resources (including the World Wide Web) to collect information and evidence as part of a research project.

LEARNING OBJECTIVES:

1. Students will use at least two types of resources to collect evidence and use it in their turtle defense debate.

EVALUATION IDEAS:

1. formative:
 - Teacher will check student understanding as they research their chosen defense strategy and present their findings during the class debate; which defense is the best.
2. summative:
 - Students will turn in their debate outline including the main points of defense from two reliable sources.

CONCEPTUAL BACKGROUND: turtles have different defense strategies to survive in their environment. These strategies include, camouflage, hiding in their shell, and sliding in water. (ARKive.org)

LESSON IMPLEMENTATION PLAN:

ENGAGE –

- 1.teacher will introduce the game “turtle track”.
- 2.The teacher will set up the classroom by setting the desks to one side of the ride (to allow maximum race room).
- 3.The teacher will place tape on the floor to mark the finish line.
- 3.The teacher will pick two students to be the “predators” of the class. They must tag the other students before they reach the finish.

4. Once a student is tagged, they must go back to the start. Students must belly-crawl the entire way (to simulate turtle movement). However, if they see a predator approaching, they can curl up into a ball and duck their heads to avoid being tagged (this will simulate retracting into a turtle shell).

EXPLORE –

1. after the students are done playing the game, the teacher will ask the students what they have learned? How did the winner win?

EXPLAIN –

1. The teacher will list various types of defense strategies that turtles use in the wild. These include; camouflage, retracting in the shell, and sliding into water.
2. Students will take notes.

ELABORATE –

1. Students will be divided into groups and they will be assigned a defense strategy.
2. As a group, they will use at least two types of resources to collect their data.
3. What does this defense strategy entail? Which turtle species uses it? Why is this best defense (what makes it unique)?
5. They will write an outline including the facts.

EVALUATE –

(a) summative –

- Students will present their findings in the debate and the teacher will check off understanding.

(b) formative –

- Teacher will collect debate outlines and assess whether or not students have used at least two reliable sources for their debate.

DIFFERENTIATION PLANS:

Behavioral for Student A:

- This student can choose which group he would like to work with to avoid any conflict from being forced into a group.

Cognitive for Student B:

- This student can be given printed sources about their defense strategy to help them look for important points.

Cognitive for Student C:

- This student can be given a debate template to help them fill out the important points and help guide them with debate structure.

Affective for Student D:

- This student can choose which defense they would like to debate about. They may be more engaged if they emotionally connect to a particular topic.

Language Demands for Students E, F, G:

- The teacher can give them visual scaffolding by showing pictures of each defense technique.
- A word wall can be posted for students to use as a visual reference during research time.
- The teacher can also ask students to physically demonstrate the defense techniques in front of the class, so the student can see first- hand how the skill is applied.

LIST OF MATERIALS (PER GROUP):

- Turtle books
- Computer with internet access
- Turtle articles (see reference list and suggested reading list).

DIRECTIONS OR SPECIAL INSTRUCTIONS; SAFETY CONCERNS, ETC.

- NONE