Candidate: Miss Roby-Miklus
Date: 07-25-17
Subject(s): Science

School: N/A
Grade Level: 9
Student #: N/A

Cooperating Teacher: N/A

Lesson Title: Responsible Reptile Keepers

Standard(s): HS-LS2-6. Evaluate the claims, evidence, and reasoning that the complex interactions and ecosystems maintain relatively consistent numbers and types of organisms in stable conditions, but changing conditions may result in new ecosystems

NGSS: HS-LS2-7. Design, evaluate, and refine a solution for reducing the impacts of human activities on the environment and biodiversity

Objective (cognitive): After the lesson, SWBAT show understanding of what creates an environment.

Objective (affective): During the lesson, students will build relationships with their peers that encourage communication, professionalism, and positive work ethics.

Objective (psychomotor): After the lesson, SWBAT research what a reptile may need in an environment and create it from materials from their own environment and others.

Materials & Supplies LISTED:
- 5 10 gallon tanks
- Computer for research
- Journals for each group and pens/ pencils
- 5 small reptiles
- Materials to create an environment for reptiles
  o Sand, rocks, greens, heat lamps, water, temperature gage, food

Anticipatory Set/ Enticement (Pre-reading & Prerequisite Skills): Students will be grouped into 5 groups. They then will research their reptile and present a 5 minuet introduction to their animal stating the scientific name, origin, best environment, and common prey.

Modeling/ Explanation (I can): 15 minuets, I will provide the students with an example of an environment created to host my chosen reptile. Explaining the purpose of everything I used to insulate, heat, feed, comfort, etc. my reptile. Students are able to comment, question, and analyze my example.

Guided Practice/ Engagement & Exploration (We can): 20 minuets (5 for each group), As a class, we will brainstorm materials students will need in order to create a successful environment for their reptiles to survive.
During 3 class periods, the students will collaborate and create environments for their reptiles in 10 gallon tanks, using resources the students and myself provide.

**Independent Practice/ Elaboration (You can):** 1 week, Once the environments are approved by me, students will receive their reptile. They will observe the reptile and environment for 1 week. Log of the temperature, food consumption, activity, and environment is expected from each student, each day of the week (5 entries per student).

**Closure:** 45 minuets, after the week is over and the reptiles are gone, students will clean the tanks so that they are 100% empty and sanitized. Once this is over, the class will participate in a discussion of their experiences with their reptiles. Was it easy to maintain the tank? How does the natural environment of these reptiles maintain itself? What did you learn about the reptile? What did you learn about the environment?

**Assessment / Evaluation:** To receive a full grade students will need to have 5 entries in the journal (one each day) stating the temperature of the tank, food consumed by the reptile, activity of the reptile, and observations of the environment they created. Additional comments or hypotheses are encouraged.

**Enrichment/ Extension:** With supervision and appropriate conditions, students could change the temperature of the environment, or change specific objects and observe if that affects the reptile at all. They also could be responsible for the reptile longer than 1 week, if possible.

**Modification/ Differentiation:** Since students will be in groups, students who may need a modification to this assignment could buddy with a peer so they are included as much as possible. If this were not an option, I would ask the student to create an image (3D or 2D) of the environment their reptile would live best in and explain it to me verbally. They should include the temperature of the environment, what food the reptile would be given, the activity of the reptile. They would be expected to participate in class discussion and still verbally contribute in their groups decisions.