

Grand Canyon Critters

CONTENT AREA & GRADE LEVEL: Fourth Grade, Science

TIME: 3 Classes (50 minutes each)

LESSON FOCUS:

After completing this lesson, students will be able to

- identify and name animals native to the Grand Canyon
- Answer questions about animals native to the Grand Canyon
- Demonstrate research skills
- Identify specific animals habitats

ASSESSMENT: Each student will be evaluated through out the lesson on participation, research skills, and ability to place animals in correct Grand Canyon habitats.

MATERIALS/BACKGROUND INFORMATION:

- Computer Lab/ Library access
- Grand Canyon journals, pencils, pens
- Construction paper, markers, colored pencils, crayons

- Before Lesson: Introduction to the Grand Canyon, discuss where the Grand Canyon is located, Size of the Grand Canyon, What the Grand Canyon is made of, Creation of habitats of the Grand Canyon in the classroom and creation of Grand Canyon Journal to document their findings.
- After Lesson: Topography of the Grand Canyon (8,000-2,000 ft), How the Grand Canyon supports the wide array of animals, Grand Canyon weather changes, Animals protected from humans.

STANDARDS ASSESSED:

Subject: Science

Subject/ Grade/ Domain: GRADE 4

Strand 1: Inquiry Process

Concept 1: Observations, Questions, and Hypotheses

PO 4. Locate information (e.g. book, article, website) related to an investigation

Concept 2: Scientific Testing (Investigating and Modeling) Participate in planning and conducting investigations, and recording data.

PO 5. Record data in an organized and appropriate format (writing journal).

Concept 3: Analysis and Conclusions

PO 1. Analyze data obtained in a scientific investigation to identify trends.

Concept 4: Communication

PO 1. Communicate verbally or in writing the results of an inquiry.

PO 2. Choose an appropriate graphic representation for collected data (drawing)

PO 3. Communicate with other groups or individuals to compare the results of a common investigation.

Strand 4: Life Science

Concept 1: Characteristics of Organisms

Understand that basic structures in plants and animals serve a function.

Performance Objective PO 2. : Classify animals by identifiable group characteristics:

Example: vertebrates – mammals, birds, fish, reptiles, amphibians

Subject : Language Arts

Subject/ Grade/ Domain : Writing

Grade : Grade 4

Strand : Strand 3: Writing Applications

Concept : Concept 2: Expository

Expository writing includes nonfiction writing that describes, explains, informs, or summarizes ideas

and content. The writing supports a thesis based on research, observation, and/or experience.

Performance Objective PO 3: Write in a variety of expository forms (e.g., essay, summary, newspaper article, reflective paper, log, journal).

POSSIBLE PROCEDURES:

Multiculturalism/Diversity: I will accommodate the diversity of my classroom by excluding snakes from the lesson completely, if my class contains any Native American students. To accommodate to special needs students, I will pair them with a higher achieving student during the illustration and presentation portion of the lesson. I believe that a higher achieving student would be beneficial to a special needs student and aid them in accomplishing the tasks at hand.

Engagement:

Discuss

- Did you know that there are over 450 types of animals that live in the Grand Canyon?
- Can you think of a few of those animals?
- Where in the Grand Canyon do you think they live?
- What do you think these animals eat?
- Are these animals dangerous?

Write students response on the board.

Exploration:

Describe to the students the upcoming activity- that they will be interviewing relatives about the Grand Canyon. Play the following oral histories so that students can hear other's experiences with the Grand Canyon: "Live and Let Live" (Voices of the Colorado Plateau) and "Never a Human Footprint" (Voices of the Colorado Plateau).

Each student will be asked to complete the following activities during this lesson:

- Interview of family member about their first trip to the Grand Canyon: Students will be asked to interview a family member (grandparent, parents, aunts, uncles) about their first

trip to the Grand Canyon and what types of animals/creatures they saw. Interviews can be in person, over the phone or via the internet. Interviews will be recorded in the students Grand Canyon journal. This activity will be completed at home and returned with in two days

- Grand Canyon Critter Research Project: A bowl will be passes around to every student, with various Grand Canyon Critters written on individual pieces of paper, each student will choose a critter to research using various sources (internet, books, articles, etc.) The students will be given one class period to do research on their critter. The students will be asked to answer several questions about their critter. After research is completed students will draw a picture of their critter using as much detail as they can. Each student will present their drawing to the class, the finished drawing will be posted in the appropriate habitats that were created in the classroom at the beginning of the unit

Grand Canyon Critter Questions:

- What does your animal look like?
- What does your animal eat?
- What animals prey (eat) your animal?
- What type of habitat does your animal live in?
- When is your animal active?
- What are two interesting facts about your animal?
- Does your animal live where you live?

Explanation: Each student will present their animal drawing and describe their animal in as much detail possible. The student presentation will include the questions they answered during research.

Elaboration: Each student will be asked to draw their animal on a piece of construction paper in as much detail as possible, students must put their names on the back of their pictures. Finished drawings will be combined after the presentations. Students will be divided into groups of four and given four pictures that were draw by members of another groups. Using the information each student presented, the group will decide which habitat each animal needs to be placed into. Before the animals are placed in a habitat the group must explain why they chose to place the animal there and the student who researched and drew the picture will indicate if the habitat was correct for that animal.

Evaluation: Each student will be evaluated through out the lesson on items such as participation, completeness of work and effort.

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