

Mystery Scat

Target Grade Level: 5th

Created and Adapted by:
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UNIVERSITY OF MONTANA GK-12 PROGRAM

1. CONTRIBUTOR'S NAME: MEGAN, FLORENCE-CARLTON K-12 SCHOOL
2. NAME OF INQUIRY: MYSTERY SCAT
3. GOALS AND OBJECTIVES:
 - a. Inquiry Questions: describe the ecology of this animal through dissection of its scat
 - b. Ecological Theme(s): diet, habitat, scientific method
 - c. General Goal: to start students at the final product and move back to the bigger picture
 - d. Specific Objectives: have students guess at the type of animal from its scat (African).
 - e. Grade Level:5
 - f. Duration/Time Required: 1 hour
 - Prep time 1 hour (plus trip to Africa)
 - Implementing Exercise During Class 1 hour
 - Assessment
4. ECOLOGICAL AND SCIENCE CONTEXT:
 - a. Background (for Teachers): Ecology of a specific animal, dissection techniques (v. simple), guessing games.
 - b. Background (to present to Students): This was an African animal, so habitat and ecology of a foreign environment, techniques, methods.
5. MOTIVATION AND INCENTIVE FOR LEARNING: Scats are cool and a bit dodgy to talk about at first. This makes it fun and squeamish, but not for long. I brought back giraffe scat, although any kind would do (if sterilized properly). I told them what continent it was from and we talked about herbivory, carnivores, omnivores, habitat types, digestion, saliva, etc.
6. VOCABULARY: Digestion, Herbivore, Carnivore, Diet
7. SAFETY INFORMATION: MICROWAVE SCATS BEFORE HANDLING
8. MATERIALS LIST (including any handouts or transparency masters): BOOKS, WEB, MAGNIFYING GLASS, TWEAZERS, TOOTHPICKS
9. METHODS/PROCEDURE FOR STUDENTS:
 - a. Pre-investigation work: Research the habitat, know something about animals there, plants, weather, etc.
 - b. Investigation work:
 - 1) What evidence (data, samples) do students collect? Observational
 - 2) How do students present the evidence (data)? Talking
 - 3) What conclusions are drawn from the evidence students collect? "Tracking" down the species of animal by what it has eaten, shape of scat, size, etc.
 - 4) Include examples of data sheets.

10. ASSESSMENT: Discussion
11. EXTENSION IDEAS: INCLUDE ANIMAL SCATS FROM LOCAL ANIMALS, DRAWINGS, MICROSCOPE STUDIES, ETC.
12. SCALABILITY: INFINITE
13. REFERENCES:
14. LIST OF EXPERTS AND CONSULTANTS
15. EVALUATION/REFLECTION BY FELLOWS AND TEACHERS OF HOW IT WENT: THE CLASS LOVED THIS, ESPECIALLY FOUR GIRLS WHO THOUGHT IT WAS "GROSS" AT FIRST, BUT ENDED UP "BEING THE COOLEST". THEIR ABILITY TO FOCUS, DISSECTING OUT LEAF PARTS AND STEMS AMAZED EVERYONE. THE NEXT IMPROMPTU INQUIRY WAS ABOUT ACACIA TREES DUE TO GIRAFFE RELIANCE ON ACACIA.