



## Topic: Data Collection in Archeology

<http://www.crowcanyon.org/> Crow Canyon

### Grade 9-Adult

An integrated lesson plan covering one session of approximately 1.5 - 2 hours.



## Lesson-Planning Approach

Some learners perceive their “world” as a whole, where all things are interconnected and dependent upon each other. These “integrated” students face major challenges in coping with our dominant educational, social, and economic systems, which tend to present information in a linear fashion without the necessity of integration into meaningful context. Integrated students are at-risk of failing as they attempt to grasp information in ways that do not match their experience. Among large populations of at-risk students are many from Native American and similar cultures who do not regard their world as a sum of parts but as a blend of all that they experience.

This lesson plan does include some traditional, linear approaches to delivering information (checklists, rules, analysis, problem solving and organization). In addition to the traditional, linear delivery of information, this lesson plan also includes some of the following strategies, designed to appeal to at-risk students as they learn academic/life skills:

- ❖ Integration of technology
- ❖ Story telling/anecdotal information
- ❖ Non-competitive group and team work
- ❖ Performance-based assessment and rubrics
- ❖ Visual presentations and practice through technology and other means
- ❖ Project-based assignments that integrate family and community
- ❖ Activities appealing to multiple intelligences (Gardner)
- ❖ Application of Scientific Method to formulate and solve a problem.

## Lesson Overview

This lesson is designed to familiarize students with the fascinating world of Rock Art, and give them practice in creating and using Power Point and Access. For this activity, we will focus on images from SE Utah, because that is where the pictures were taken. Rock Art is everywhere. I encourage you to use the Power Point and Access file as a guide, and then go out and explore the early history of your area. I am blessed to live in the Southwest, where these images tell many stories, but there are always new stories to tell. Students will collect data from the images provided, and place the information into an access data base template to share with other students and research more scientifically.

## Lesson Objectives

**Project Objectives: When students complete this session, they will be able to...**

- ❖ Research different types of rock art and categorize it into basic groups
- ❖ Classify the Power Point Images according to your interpretation.
- ❖ Enter your findings into the Access template.
- ❖ Interpret the results after comparing your information with the rest of the class.

**Integration of Other Functional/Academic Skills:** (Critical thinking is required throughout the lesson.) Students will be able to...

*Math:* Classify and quantify the images

*Reading:* Apply technical vocabulary; find main points and meaning in written passages. Read information about Rock Art from the links provided

*Writing:* Summarize; define; explain

*Listening:* Follow the oral directions. Listen to the Rock Art Story

*Science* Apply scientific method when recording and interpreting the information

*Technology:* apply basic features of Microsoft Word, Access and Power Point

## State/National Standards (Complete as Appropriate)

<http://www.cde.state.co.us/cdeassess/sci.htm#standards> 5  
<http://www.cde.state.co.us/> Mathematics 3,6

## Websites

### Required:

<http://raysweb.net/rockart/pages/similarlinks.html> Four Corners Rock Art

### Support:

<http://www.questorsys.com/rockart/links.htm> Rock Art links  
<http://www.execpc.com/~jcampbel/> Specific images and interpretation

**Pre-requisites:** Read at sixth grade level or above. Basic Knowledge of Access and Power Point

## Suggested Materials

**Legacy on Stone: Rock Art of the Colorado Plateau**, by Sally Cole Johnson Publishing 1992

## Handouts

- ❖ Rock Art Glossary ([Handout 1](#))
- ❖ Lesson Checklist ([Handout 2](#))
- ❖ Power Point Presentation ([Handout 3](#))
- ❖ Access Database ([Handout 4](#))
- ❖ Lesson Rubric ([Handout 5](#))

## Required Equipment/Technology

- ❖ 1 computer, with Internet connection and a MS Office 2000 for every group of 2-3 students
- ❖ Projector

## THE LESSON

Note: Students do not learn from what you do but from what you have them do.

### PART I

#### Preparation

Activity	Instructor Notes
Research the topic.	Look through all the materials and make sure you can set up and enter data into an access file
Add any links to local rock art	Even if you live in a city, what kind of artifacts are available in your area?
Examine handouts.	Go through each handout and allow questions, clarifications.

#### Presentation

<a href="http://www.ocbtracker.com/ladypixel/buffston.html">http://www.ocbtracker.com/ladypixel/buffston.html</a>	Tell a story about early explorers viewing paintings on walls ....if you can't find one or make one up, there are many on internet. Buffalo Stone is a good tale
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#### Performance and Practice

Instructions for students	Teacher notes
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<p>Create a <a href="#">data base</a> similar to the one shown. Open the <a href="#">Power Point presentation</a> and explore the images</p>	<p><b>This activity is to spark curiosity in the students about how archeologists collect and record data. Encourage them to be as descriptive as possible.</b></p>
<ul style="list-style-type: none"> <li>❖ . Arrange them on your desktop so you can view both at once</li> <li>❖ Enter data from the pictures into the access file</li> </ul> <p>Under description, add as much detail as possible</p>	<p><b>Handout the Glossary if they insist, but encourage them to make their own interpretations of the figures. Have students come up with a list of 6-10 Standard Categories. They can type as much detail as they want into the Description box. Possible Categories: Animal-like, Plant-like, People-like, Geometric, Water, Land, etc.</b></p>
<p>Sort the data according to category</p>	<p><b>Have students compare results with each other. Some probably chose different categories for the same image</b></p>
<p>Demonstrate understanding by designing a similar Data Base that might be used by Archaeologists.</p>	<p><b>Ideas: Pottery, Dwellings, Etc.</b></p>

## Lesson Assessment Strategy (Formative – As the lesson progresses)

### Preparation, Presentation and Overall Implementation (Instructor)

1. Are the instructions and expectations for the class clear from the beginning?
2. Am I spending sufficient time on modeling the skills I want students to acquire?
3. Is there enough variety in the lesson to appeal to most learning preferences?
4. How many learning intelligences am I addressing?
5. Are students “connecting” to lesson objectives? How?
6. How is this lesson “integrated?”

### Performance and Practice (Student)

1. Do all students have the skills to follow instructions? If not, what measures am I taking to address the challenge?
2. Are all students participating in the activities either by active observation or by voicing their thoughts?
3. Am I identifying the strengths of each student and pairing/grouping people accordingly? What results am I getting?
4. How are students performing? Are all of them able meeting 80% of the lesson objectives? If not, what am I doing to help them achieve more?

### Technology

1. Is the technology working?
2. How are students reacting to the technology, and what do I need to remember when I teach this lesson again?
3. How are students applying or wanting to apply their technical skills in other areas?

## Activity Checklist (Handout 2)

Discuss the topic.	
Examine the required and optional web sites.	
Open the Power Point and Access at the same time	
Record Data from the rock art using the glossary	
In a group, compare and interpret possible meanings from the different rock art panels. Explore a specific image that fascinates you.	
Compose a summary paragraph about your impressions of Rock Art and whether or not access would be an effective way to record data	

## Procedure

- ❖ Open the [data base](#)
- ❖ Open the [Power Point presentation](#)
- ❖ Arrange them on your desktop so you can view both at once
- ❖ Enter data from the pictures into the access file
- ❖ Under description, add as much detail as possible
- ❖ Sort the data according to category
- ❖ Modify the Data base if you have a better plan or other ideas