CULTURAL HISTORY

Activities

Background on Cultural History

Archeology is the scientific study of the past. Archeologists study what people have left behind to reconstruct how they lived in the past. Things that people made or used in the past become buried after people have left them behind. Wind, water, and other natural forces cover over places where people have lived, farmed, hunted, etc., in the past. When archeologists locate and excavate these places, they can interpret what people did there and how they lived.

Archeologists call the things that people have made "artifacts." They study artifacts to figure out what they were and what they were used for. People have used other things that they did not make, such as animal bones and hides, plant parts, and stones. Before such items are made into an artifact, archeologists call them "ecofacts." When all these things are found at the same place or site are studied together, an archeologist can interpret how the people lived at that place at a certain time. Although archeologists can learn a little from just an artifact or ecofact by itself, they learn much more from a collection of artifacts and ecofacts found at one place together. Thus, it is very important that artifacts and ecofacts are left where they are found.

Artifacts and ecofacts found in relation to one another help archeologists put people of the past in context with place and time. If an archeologist cannot put a culture in a certain region or in a certain time, it is very difficult to interpret relationships between cultures through time. Groups of artifacts and ecofacts from a particular region and time help archeologists better describe cultures or peoples of the past.

Because placing a culture in specific time period is crucial, dating a site is very important. Archeologists use a number of dating techniques, such as stratigraphy, dendrochronology, ceramic cross-dating, radiocarbon dating, and archaeomagnetic dating. Once sites and groups of sites are dated and cultures are defined, archeologists can interpret a culture's history. As new research is done and new evidence is found, the interpretation of culture history continues to change.

During the last Ice Age (Pleistocene), 10,000 B.C., people migrated south from the arctic regions of Asia to North America. They ranged over large areas following herds of large game animals and collecting plants. Archeologists call these peoples PaleoIndians. Later, after the glaciers receded and environments changed, Archaic peoples were limited in the areas they hunted animals and gathered plants.

Between 8,000 to 1,000 B.C., Archaic peoples learned to use the plants and animals in their environments very well, and in some areas they began cultivating certain plants. Bands of PaleoIndians and Archaic peoples moved through, camped in, and utilized the plants and animals of the rich environments of the Verde Valley. Eventually, knowledge about growing corn and squash worked its way north from Mexico. Many bands in

the Southwest took up gardening to supplement their hunting and gathering. Eventually people began settling near their gardens for longer periods of time and building more substantial shelters. Between A.D. 0–700, beans were added to corn and squash, and people over much of the Southwest became farmers.

By the end of this time, people diversified into the cultures archeologists call the Ancestral Puebloans (Anasazi)*, Mogollon, Hohokam, and Sinagua. People began living in villages of pithouses, cooking and storing their food in pottery, and hunting with bow and arrow. Trading in goods and ideas was very important between the different cultures. Both the Mogollon and the Hohokam disseminated many ideas and items from Mexico north to the Ancestral Puebloans. Because the Sinagua were between all three of these cultures, they adopted and passed on many ideas and items from all three groups. They lived both in the mountains around Flagstaff and in the Verde Valley. The Sinagua adopted many Hohokam ideas and styles, such as shell jewelry, irrigation farming, paddle and anvil pottery, ballcourts, and small platform mounds.

Between A.D. 700–1000, the Ancestral Puebloans developed above ground masonry pueblos, which filtered south to the Mogollon, Sinagua, and Salado. By A.D. 1100, the Hohokam had adapted the idea into adobe platform mounts, "big houses," and compounds.

After the great drought of the late 13th century, many of the Ancestral Puebloans and Sinagua of the Flagstaff area moved south. During the 14th century, the population of the Verde Valley increased significantly, which increased use of the available resources. The 14th century was a time of migration, amalgamation, and conflict. The Sinagua of the Verde Valley and Anderson Mesa to the northeast sustained themselves against outside pressure until the 15th century. Due to possible overuse of the environment, flooding, and cultural instability, the Sinagua, Salado, Ancestral Puebloans, Hohokam, and Mogollon ceased to exist as they had before. Instead, they moved and/or lived simpler lives. They became the Pueblos, such as the Hopi, Zuni, Acoma, and Tohono O'odham (Pima and Papago) that the Spanish met in the 16th century.

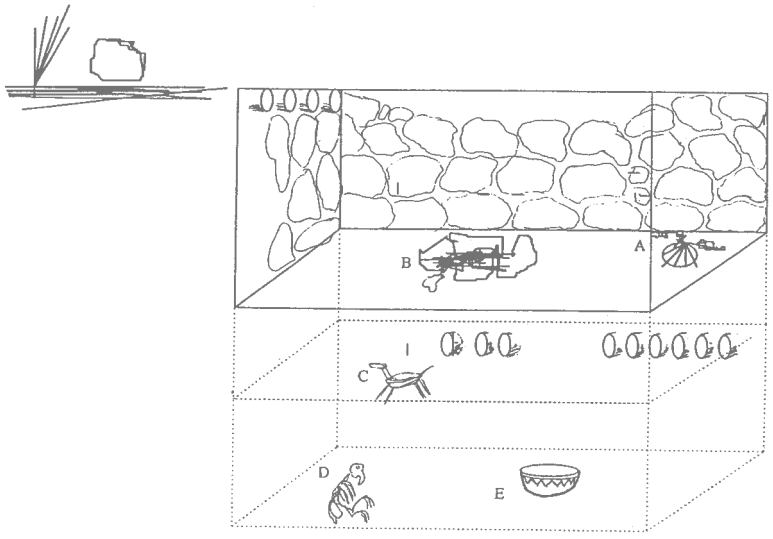
With the aid of the following activities, students can learn about archeology and the native peoples of the Verde Valley and the Southwest. Feel free to use and adapt any of the information and activities in this section to help you in your units on native peoples and archeology. These activities meet the following Arizona State Curriculum Standards (AIMS).

These activities may be used to enhance field trips to the monuments, or may be used on their own. We hope that you will find them helpful in your endeavors to teach children about the great heritage of our country. If you need any further assistance, feel free to inquire directly to the monuments for more information.

* The name "Anasazi" is being replaced by the name "Ancestral Puebloan" in recognition of their modern ancestors.

Educator's Outline for

DIG THAT PAD!



OBJECTIVES

After completing this exercise the student will be able to

1. define the Rule of Superposition.
2. discuss the amount of information that can be obtained by one artifact and its position.

GRADES: 6 to 8

AZ CURRICULUM STANDARDS:
Science Standard 1 – Science as inquiry

GROUP SIZE: 20 to 30

DURATION: 30-60 minutes

SETTING: Classroom

MATERIALS: Pencil and paper

SET-UP AND PROCEDURE: Following is a cross-section of an excavated archeological site found in central Arizona. The artifacts found in the rooms have been marked with a letter. Have the students answer the questions about the sketch after discussing the background information. Discuss the answers to the questions.

DIG THAT PAD!

Archeology is the scientific study of past cultures. Many compare it to detective work, because archeologists deduce when, where, and how people lived by studying what they left behind. Archeologists excavate a site in an organized way. They map the area, and carefully record everything that is found there. The location of objects and what they were used for are valuable clues about how people of the past lived. By comparing artifacts or objects made by people from different sites, archeologists can surmise which cultures lived at which sites and how they interacted with one another through time.

Placing cultures and artifacts in time is essential to making any interpretations about people of the past. Layers of soil accumulate naturally over time. Depending on which layer an artifact is found in, an archeologist can tell how old it is compared to another artifact found at the same site. Because the layers of earth on the bottom were laid down before the ones on top, anything found in the lower layers should be older than anything found in the upper layers. Thus an archeologist knows that an artifact found at the bottom of a site is usually older than the one found near the top of a site. The fact that lower layers of soil are usually older than upper layers is the rule of superposition. By studying groups of artifacts found together in different layers, an archeologist can see changes that take place within a culture through time or the change of cultures in one place over time.

Archeologists date artifacts and the layers of earth where they were found using other methods too. Any once-living thing, such as wood, seeds, bone, etc., can be dated by radiocarbon dating. The radiocarbon testing of a small piece tells when the thing was alive. Because people usually used it soon after its death, an archeologist assumes that the people must have lived about the same time. Charcoal is a very important source of radiocarbon dates, because many plant and animal remains are preserved when they have been burned.

The magnetic north pole moves over time. When the clay of a fire pit or hearth is baked, the magnetic particles in it line up with the true magnetic north of that time. By comparing the alignment to the known location, archeologists can date a sample of baked clay. This is called archaeomagnetic dating.

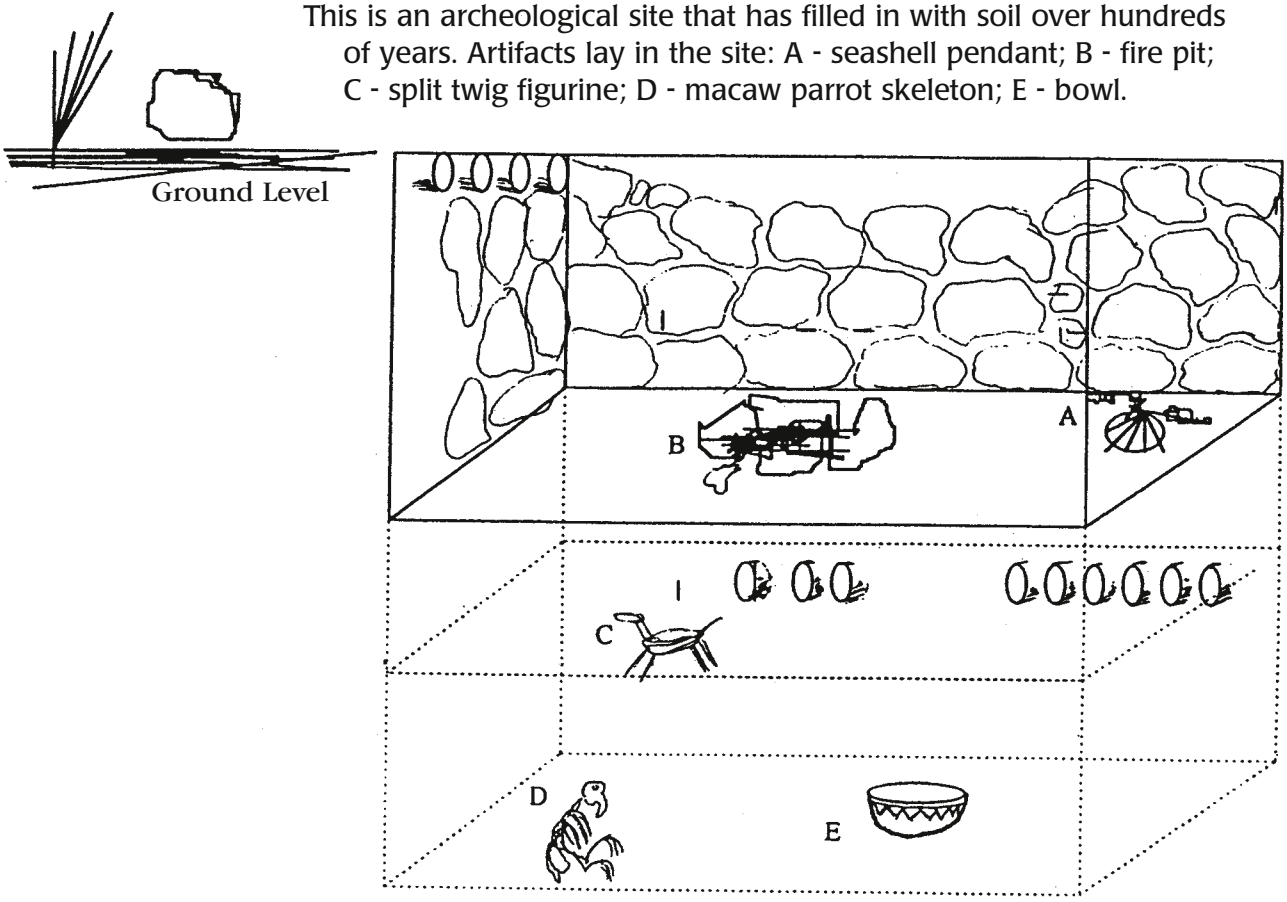
In the Southwest, whole tree limbs and logs have been preserved in ancient pueblos, cliff dwellings, and other structures. Southwestern archeologists and other scientists have figured out a calendar of tree rings by studying samples from structural beams, stumps, and living conifer trees. By matching patterns of annual tree rings, scientists have created a master tree ring or dendrochronology calendar.

Because pottery styles change through time and can be dated to a certain range of years, pottery sherds can be used to date a site or layers of earth at a site. This is ceramic cross-dating.

Archeologists can also learn about

changes in climate from pollen. Pollen in the soil or in rooms can tell them what type of plants were in the area and what the climate may have been like. Archeologists can tell what plants and animals people were using from pollen and other plant and animal remains, too. By studying pieces of pottery and stone tools, archeologists can tell where the raw materials to make them came from and what they were used for. Archeologists have many ways to learn about people of the past—but they can not learn anything new if people do not leave artifacts where they find them.

This is an archeological site that has filled in with soil over hundreds of years. Artifacts lay in the site: A - seashell pendant; B - fire pit; C - split twig figurine; D - macaw parrot skeleton; E - bowl.



QUESTIONS:

1. Which artifact is older, A or E? Why?

2. Was there another room under the floor of the exposed room? How can you tell?

3. Was this living quarters or a storage room? How can you tell?

4. What can archeologists learn from examining the fire pit?

5. Was this a nomadic hunting and gathering culture or an agricultural community? Why do you think that?

6. What different items or features in this picture can archeologists use to date this room?

7. Artifact A is a shell pendant. Where can you find seashells? What does this tell us about this culture?

8. Artifact D is a macaw parrot skeleton. Where can you find this kind of parrot? What does this tell us about the culture's trade network?

Educator's Outline for

TREES OF TIME

OBJECTIVES

After completing this exercise the student will be able to

1. define the concept of dendrochronology or tree ring dating.
2. apply a tree ring calendar to a sample beam cross section and solve time-related problems.

GRADES: 3 to 8

AZ CURRICULUM STANDARDS:
Science Standard 1 – Science as inquiry
Mathmatics Standard 1 – Number sense

GROUP SIZE: 1 to 30.

DURATION: 1 hour.

SETTING: Classroom.

MATERIALS: Paper, pencil, and magnifying glasses.

SET-UP: On the following student activity sheet is a calendar strip section and sketches of roof timbers showing annual tree ring growth. Clusters of dry years have been numbered and spaces of wet years have been exaggerated for the purpose of illustration. The year A.D. 1300 has been marked. A and B are the timbers taken from the roofing of ancient rooms. We know that timber B was cut down in the year A.D. 1300.

PROCEDURE: Cut out the calendar strip section at the top of the page and distribute a copy of it to each student to use with a the sketch of two beam sections from the roofs of two pueblo rooms. Have the students slide the calendar strip across the beam sections until the lines most closely match. Have the students answer the following questions based on the given information.

Trees of Time

Archeologists have produced a calendar by comparing tree rings from dated stumps and sections from progressively older trees. By comparing where the rings overlapped between sections, they were able to put together a calendar of tree rings. In dry years the tree rings were closer together, and in years with much rainfall the tree rings were farther apart. This produced a pattern of narrow and wide lines. By matching the pattern of tree rings on a segment from a roof beam with the master calendar, the archeologists can tell how old it is

Using the diagram of tree rings, answer the following questions:

1. Which tree is older?

2. Which tree lived longer?

3. What year was tree A cut down?

4. What does this tell us about the pueblo room the beam was found in?

5. How many years later was tree B cut down after tree A had been cut down?

6. According to the calendar, was the year A.D. 1300 a wet or a dry year?

7. Was A.D. 1294 a good year for growing crops? Why do you think that?

8. Was A.D. 1274 a good year for growing crops?

9. Were the years A.D. 1300 to 1303 wet years or dry years?

10. Was A.D. 1300 to 1303 good years for planting crops?

11. Do you think there were many marshlands during A.D. 1300 to 1303?

12. Were A.D. 1300 to 1303 a good time to hunt waterfowl? Why or why not?

13. How long did this period last?

14. Assuming the "+" marks the center of the beam, what year did tree A germinate?

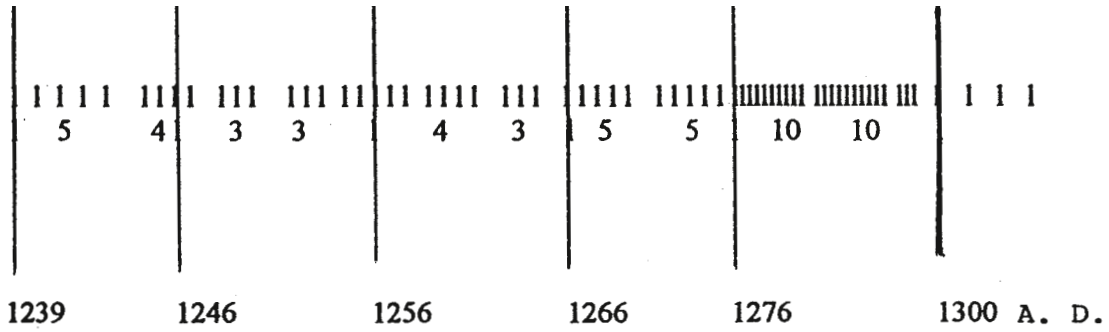
15. About what year did tree B germinate?

16. How many years did tree A live before it was cut down?

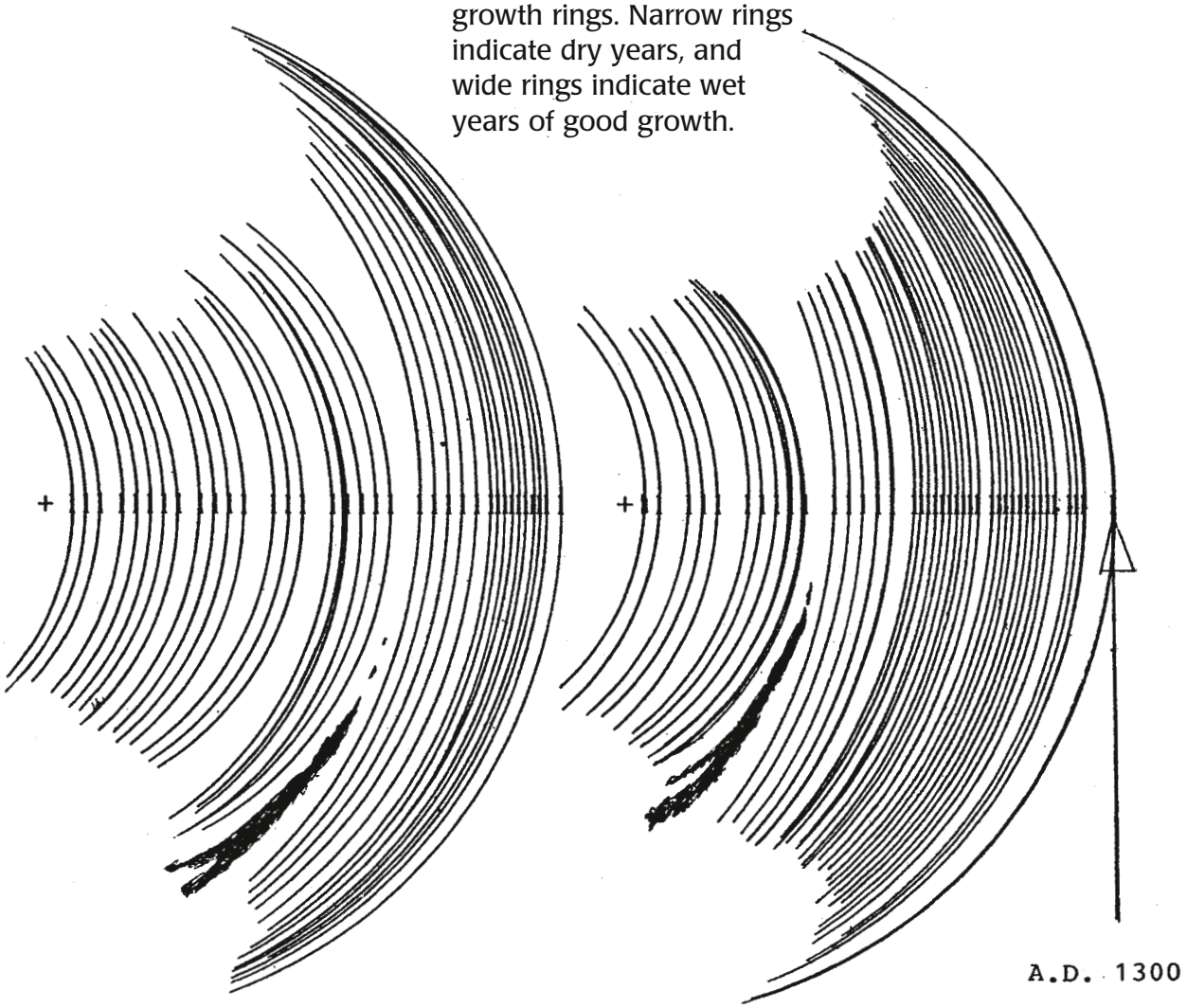
17. Both tree A and tree B have a burn scar in the same year. What year was it?

18. Was the year from question 17 a wet year or a dry year?

Calendar Strip and Roof Beam Sections



Sections of roof timbers showing annual tree growth rings. Narrow rings indicate dry years, and wide rings indicate wet years of good growth.



A B

Educator's Outline for

WHAT DOES IT MEAN?

SET-UP: This exercise can be done in the library before or after a field trip to a national monument or museum and then discussed in the classroom. The research for this exercise can also be done as homework and discussed in class the following day.

PROCEDURE: Give the class the names of the Southwest cultures and sites, and ask them to find their meanings. After the class has been given sufficient library time, the definitions and origins of these names can be discussed in the classroom. Interesting questions to ask regarding these names are, "Who named these ancient cultures or places?" and "Why did they choose that name?" Often archeologists have asked the people living in the area what they called the ancient people.

OBJECTIVES

After completing this exercise the student will be able to

1. define the meanings and origins of names given to cultures or archeological sites of the southwest.
2. understand that many names were given to ancient cultures or sites by people of other cultures.
3. conduct research using the library or the Internet.

GRADES: 3 to 8

AZ CURRICULUM STANDARDS:
Language Arts Standard 1 – Reading;
Language Arts Standard 4 – Viewing and Presenting

GROUP SIZE: 1 to 30

DURATION: 1 to 2 hours

SETTING: Library or computer lab with Internet access

MATERIALS: Pencil, paper, and reference material

Canyon
Hohokam de Chelly
SALADO
Ancestral Puebloan
Tuzigoot

What Does It Mean?

When the ancient peoples of the Southwest left their homes, they did not leave a written record. Modern people gave names to the ancient sites and to the peoples who had lived there. Some of these names were adopted from the modern native people living in the area, while others come from the Spanish language.

QUESTIONS: Can you find out what these names mean and where these southwest cultures and sites came from?

1. Anasazi/Ancestral Puebloan

2. Hohokam

3. Sinagua

4. Salado

5. Mogollon

6. Casa Grande

7. Montezuma (Castle and Well)

8. Tuzigoot

9. Wupatki

10. Canyon de Chelly

11. Tonto

12. Gila Cliff Dwellings

Educator's Outline for

YOUR VISIT TO THE NATIONAL MONUMENTS!

SET-UP: Remember that one of the missions of the National Park Service is to protect the natural and cultural resources found at all national parks and national monuments. You may not take or disturb anything, including potshards, plants or wildlife. Because the walls of the pueblos are very old and fragile, please do not climb or walk on them. For your own safety and the preservation of the resources, please stay on the trail.

Some school groups that visit Tuzigoot National Monument or Montezuma Castle National Monument have their own program activities, while other groups can be provided with a ranger-guided tour or orientation by prior arrangement. Below is a list of questions and activities that you might consider while you are visiting the monuments.

OBJECTIVES

After completing this exercise the student will be able to

1. discuss what the daily life of a Sinagua boy or girl may have been like.
2. discuss the methods and materials the Sinagua people used in order to survive and meet their daily needs.

GRADES: 3 to 8

AZ CURRICULUM STANDARDS:
Social Studies Standard 1 – History
Social Studies Standard 3 – Geography
Language Arts Standard 1 – Reading
Language Arts Standard 3 – Listening and speaking

GROUP SIZE: 1 to 50

DURATION: 1 to 2 hours

SETTING: Field trip to Tuzigoot National Monument or Montezuma Castle National Monument

MATERIALS: Paper and pencil.

PROCEDURE: If you are visiting with a small group, you may want to visit the museum first, and then walk to the pueblo or cliff dwelling. If you have arranged for a ranger-guided walk or orientation, you may want to do this first, and then return to the museum to see if the class can find the answers to the questions. If you have a large group of 50 or more, you may want to take half to the structures and the other half to the museum, then switch the groups.

Your Visit to the National Monuments!

These national monuments are archeological sites. Here you will find the remains of ancient pueblos, a cliff dwelling, and many artifacts on display. The people who built these places were members of a culture we call the Sinagua. They were basically farmers, but they also hunted game and collected plants for food, tools, and clothes. We know that they traded far and wide and had peaceful relationships with their neighbors. They were contemporaries with the Anasazi/Ancestral Pueblo, Hohokam, Salado, and Mogollon. They eventually left the Verde Valley to join the Hopi and other modern Pueblo tribes.

QUESTIONS:

1. What does "Tuzigoot" mean?

2. How did Montezuma Castle get its name?

3. What does "Sinagua" mean?

4. When were the villages first built?

5. When did the Sinagua people leave the Verde Valley?

6. Where did macaws originally come from?

7. Where did seashells come from?

8. What is a metate?

9. What is a mano?

10. What mineral did the Sinagua have most of?

11. What kind of pottery designs did the Sinagua make?

12. Where did the decorated pots come from?

13. What are those big yellow fields near Tuzigoot?

14. What kinds of crops did the Sinagua grow?

15. Most of the rooms in the pueblos had no doorways, why might the people have come in through the roof?

16. Did the Sinagua have any enemies?

17. Where did they get their water?

18. Name three plants and two possible uses that the Sinagua may have had for each.

19. Name two tools or items the Sinagua made of bone.

20. Name two tools they made of stone.

21. Why do you think the Sinagua left the Verde Valley?

22. What did the Sinagua use for string?

23. Did the Sinagua wear clothes? Why do you think that?

24. What did they make their clothes out of?

25. What are those tiny beads made of?

26. How did they make those beads? What did they use to drill those holes?

On a separate piece of paper:

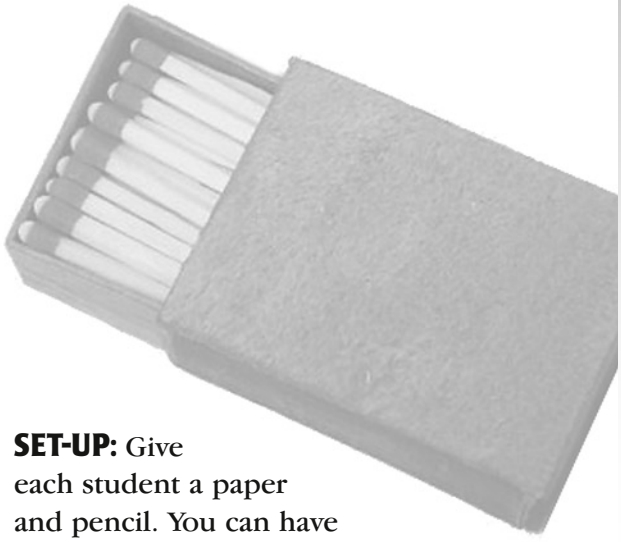
27. Draw a sketch of a bowl or a pot that you see.

28. Draw an ancient tool that you see.

29. Draw yourself doing something that you think a Sinagua boy or girl would have done between A.D. 1100 and 1400.

Educator's Outline for

WILL I SURVIVE?



OBJECTIVES

After completing this exercise the student will be able to

1. discuss the challenges the early cultures faced in order to survive.
2. see the advantage of teamwork in a survival crisis.

GRADES: 2 to 8

AZ CURRICULUM STANDARDS:
Language Arts Standard 2 – Writing
Technology Standard 1 – Fundamental operations and concepts

GROUP SIZE: 5 to 30

DURATION: 1 to 1.5 hours

SETTING: Classroom

MATERIALS: Paper and pencil.

SET-UP: Give each student a paper and pencil. You can have students work by themselves or in teams of five. Otherwise you can have them work on the problem alone first, hold on to their answers, and then put them in teams. Tell them the scenario and give them 15 to 30 minutes to write down what they would do in order to survive until help arrives. Tell them they need food, water, and shelter to survive. After the exercise, discuss what they did to deal with the problem. Usually teams of students will think of better strategies to survive that students working alone will.

PROCEDURE: After the students have worked on the problem, have the whole class discuss the options for survival and any observations that they may have.

Will I Survive?

SCENARIO:
Your airplane has crashed in the desert 200 miles away from any town. It is 120 degrees Fahrenheit outside. Your radio is broken. You cannot call for help. You don't know how long it will be before someone comes to look for you.

You see:

- no water
- no trees
- a few large banana yucca plants
- lots of prickly pear cactus
- a few large agave
- lots of creosote bushes
- some salt bush
- lots of rocks
- a mountain about 30 miles away

You have:

- a knife
- plastic garbage bags
- a parachute
- airplane parts
- one flare
- one pistol with six bullets
- 3 matches

What will you do to survive?

EXTRA CREDIT: Think of the early nomadic hunting and gathering cultures that were here. What did they eat? Where did they get their water? How did they keep cool? Think of the early traders. The traders walked hundreds of miles, crossing mountains and deserts. In their travels, they had to obtain food and water along the way. How did they do it? What did they eat? Where did they get their water?

Educator's Outline for

THE REAL NATURAL FOOD AND SUPPLY MARKET

OBJECTIVES

After completing this exercise the student will be able to

1. identify two of the skills and two details of the knowledge the early hunting and gathering cultures needed in order to survive.
2. identify the names and possible uses of at least three of the native plants of the Verde Valley.

GRADES: 2 to 8

AZ CURRICULUM STANDARDS:
Social Studies Standard 1 – History
Social Studies Standard 3 – Geography
Science Standard 4 – Life science

GROUP SIZE: 5 to 40

DURATION: 1 to 2 hours.

SETTING: Classroom or outdoor natural area

MATERIALS: Pencil and paper, plant sketches or actual specimens of the listed plants

SET-UP: Make copies of the following plant drawings and distribute them to the class, or you may collect a few samples of these plants to show the class. Remember to obtain prior permission to collect on private or public land.

If you take the class on a field trip to a local marsh or nature area, you may want to locate these plants ahead of time.

PROCEDURE: Ask the students:

1. Where they can find each of these plants.

2. To list and describe how many different ways these plants can be used.

3. If you go to a nature area, ask the students to point out these plants and tell how they would make use of them.

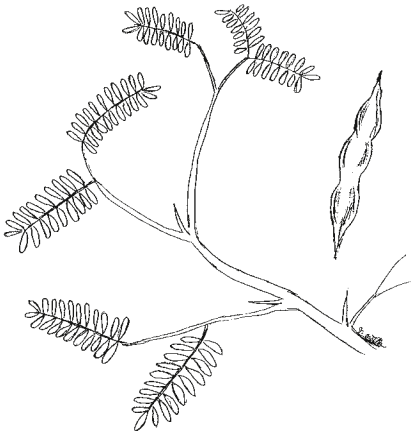
As you can see, the study of the uses and exploitation of native plants by prehistoric cultures is a science in itself. It is called *ethnobotany.*

The Real Natural Food and Supply Market

Early Hunting and Gathering Cultures
Thousands of years ago, people entered the Verde Valley to hunt animals and gather plants from along the Verde River and its tributaries. Because Clovis points have been found in the Verde Valley and Flagstaff area, we know that PaleoIndians were in the area in 10,000 B.C.. After the Ice Age, in 8,000 B.C., Archaic peoples ranged through the Verde Valley hunting animals and gathering plants, and established themselves in the high desert, upland, and riparian environments of the valley. During this time, people became experts at collecting and making what they needed from the native animals, plants, and stones of the area. Their food, medicine, clothes, shelters, tools, containers, decorations, games, etc., came from materials they collected.

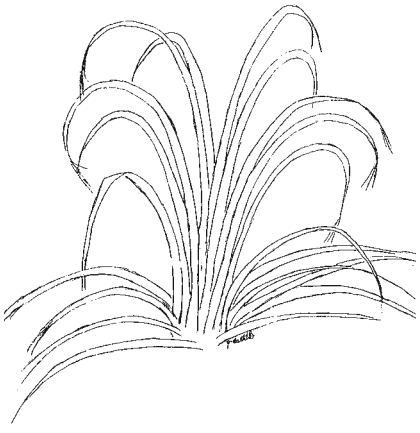
1. Name of plant:

Things it can be used for:



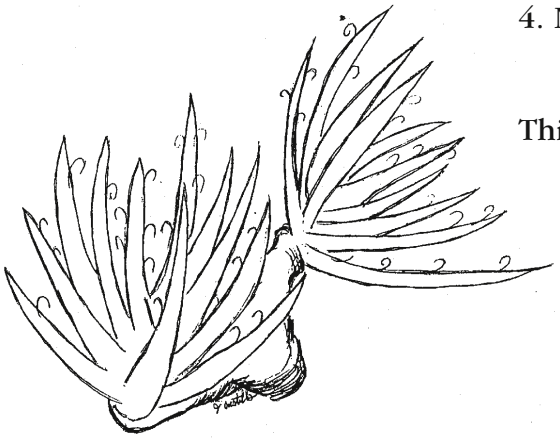
2. Name of tree:

Things it can be used for:



3. Name of plant:

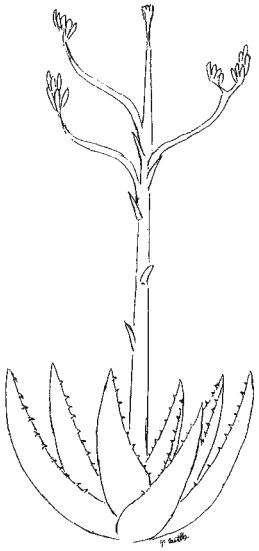
Things it can be used for:



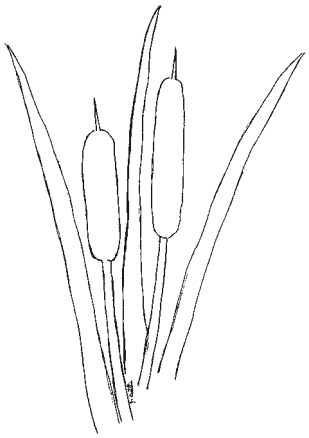
4. Name of plant:

Things it can be used for:

5. Name of plant:



Things it can be used for:



6. Name of plant:

Things it can be used for:

7. Name of plant:

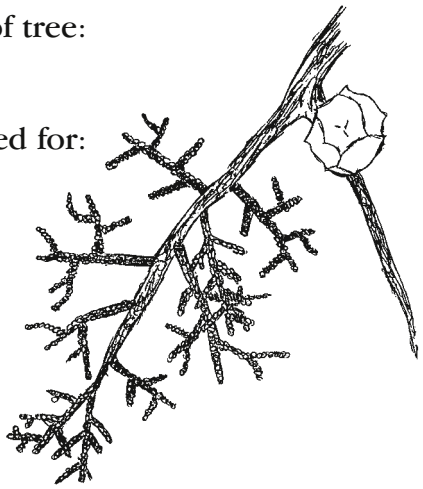
Things it can be used for:

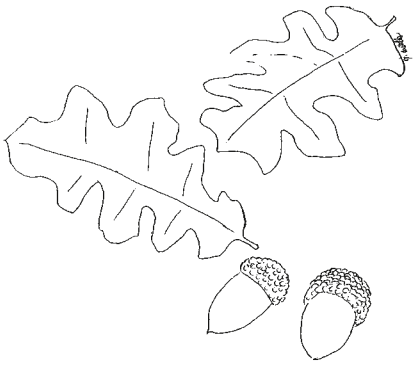
8. Name of tree:

Things it can be used for:

8. Name of tree:

Things it can be used for:





8. Name of tree:

Things it can be used for:

EXTRA CREDIT: Try weaving mats with construction paper, braiding rope out of twine or string, or making split-twig figurines out of pipe brushes or cleaners.

Split-twig figurines were replicas of animals made out of willow or other twigs that Archaic people may have used for hunting ceremonies. They have been found at many Archaic rock shelters in the Grand Canyon, Sycamore Canyon, and other places. You can see an example in the Tuzigoot National Monument museum.

Educator's Outline for

AGRICULTURE

OBJECTIVES

After completing this exercise the student will be able to

1. understand the factors that need to be considered in order to grow crops.
2. understand how agriculture allows the development of complex societies.

GRADES: 4 to 8

AZ CURRICULUM STANDARDS:
Science Standard 4 – Life science
Social Studies Standard 3 – Geography
Social Studies Standard 4 – Economics

GROUP SIZE: 5 to 10

DURATION: 1 to 2 hours or two 1 hour sessions

SETTING: Home Economics lab or classroom

MATERIALS: Depending on the size of the class you will need: 5 lbs. of corn meal or masa, water, salt, stove top with griddle or electric griddle or flying pan, 1 small can of baking powder, 1 small jar of sugar. Optional: several ears of corn, a calculator

SET-UP: Depending on the size of the class, you will need to acquire the ingredients of the tortillas, cooking facilities, utensils, paper plates, and napkins.

Depending on the amount of time you have with the students, you may need to lead the discussion during a separate session. Otherwise, you may give the students the questions as homework and then discuss the answers in class the following day.

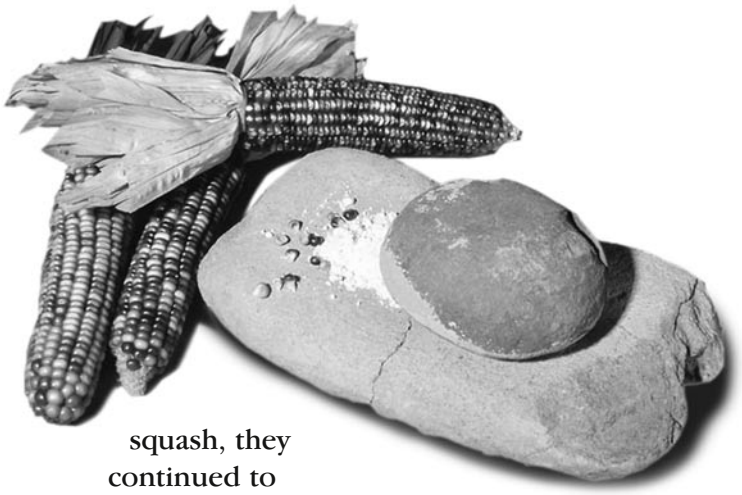
PROCEDURE: Bring water and salt to a boil. Then mix equal amounts of boiling water and cornmeal together into dough. Knead the dough into thin, flat cakes/tortillas and grill until grown on both sides.

After the bread is done and served, have the class answer the following questions, and discuss the answers as a group.

EXTRA CREDIT: Shell several ears of corn to see how many kernels weigh the same as one cup of cornmeal. You will need to know the answer to this activity to do the math questions 10 and 11.

You can have students plant a corn kernel in a small flowerpot or a large cup, and have them take care of it every morning at the beginning of class.

Agriculture



Many early native peoples experimented with growing and modifying native plants after the Ice Age. Archaeologists believe that in about B.C. 5000, people in Mexico had already modified a wild grass called teosinte into an early variety of popcorn. Through experimentation, they bred for bigger seeds, and eventually developed many varieties of corn/maize. Through trial and error, gourds, squashes, chiles, beans, cotton, potatoes, pineapples, tomatoes, and other plants were domesticated in several areas of the Americas, too. Eventually, knowledge of many of these cultivated crops spread throughout the American continents.

Between A.D. 0 to 1,500, corn/maize and squash were adopted from Mexico by hunting and gathering peoples throughout the Southwest. Whether the crops were traded north from group to group or brought by migrating people is not yet clear. Once people began growing corn/maize and squash, they had to remain near their crops for part of the year to plant, tend, and harvest them. Thus they began to limit their wandering, and to build more substantial shelters for at least part of the year.

Storage of the harvested crops and gathered wild plants and animals became an important issue, too. Once beans were added to the other two crops, about A.D. 0 to 500, farmers had staples that they could rely upon for a dependable diet. The Southwestern farmers settled down in one place to farm full time. Although they grew staples of corn, beans, and squash, they continued to hunt and gather wild plants and animals to supplement their diet and make other necessities.

The early farmers of the Verde Valley adopted irrigation farming, pottery making, and ritual from the Hohokam. Some Hohokam moved up the Verde River from the Salt and Gila valleys to occupy the Verde Valley. The first villages appear about A.D. 700. Some villages had just a few pithouses, while several had nearly a hundred pithouses surrounding ballcourts and small platform mounds. Many items, skills, and ideas were traded by many different ethnic groups throughout the Hohokam regional network. The network seems to have been held together by the ritual and exchange that occurred near the ballcourts and small platform mounds.

QUESTIONS:

1. How do you suppose the early farmers made bread?

2. How did they get water to their crops?

3. How do you think they kept animals away from their fields?

4. What do you think they would have eaten if all the corn had died before it was ready for harvest?

5. How much corn bread do you think they ate in one day?

6. How many different kinds of food can you think of that are made of corn?

7. Do you think the early farmers could leave their crops and go live somewhere else for a while? Why, or why not?

8. How many people do you think it would have taken to plant, weed, tend, and harvest a field of corn/maize?

9. How did farming allow groups of people to live in large villages and have enough food to feed people who did not farm?

10. If one cup of cornmeal makes 5 tortillas, and the weight of the ground cornmeal is equal to the same weight of shelled corn kernels, how many ears of corn does it take to make five tortillas?

11. If a corn plant produces an average of 3 ears, and a person ate 5 tortillas a day, how many corn plants would one need to feed one person for one year? Use the answer to #10 in your calculations.

OBJECTIVES

After completing this exercise the student will be able to

1. discuss the differences and similarities between pithouses and pueblos and some reasons for changing from one to the other.

GRADES: 3 to 8

AZ CURRICULUM STANDARDS:
Social Studies Standard 1 – History
Language Arts Standard 3 – Listening and speaking

GROUP SIZE: 5 to 20.

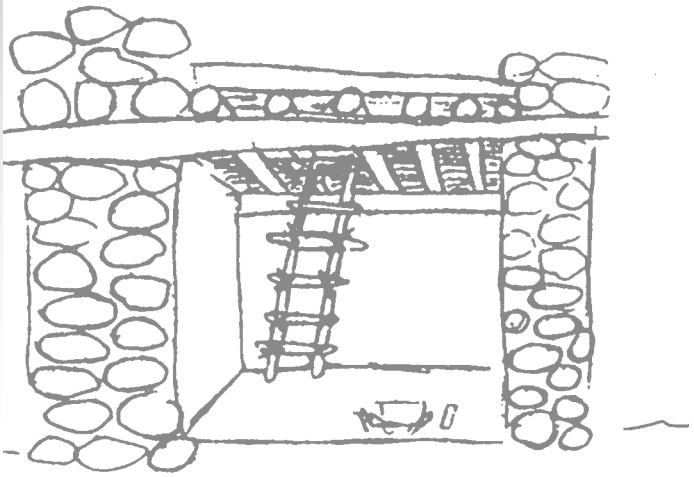
DURATION: 30 to 60 minutes.

SETTING: Classroom.

MATERIALS: Pencil and paper

Educator's Outline for

PITHOUSE TO PUEBLO

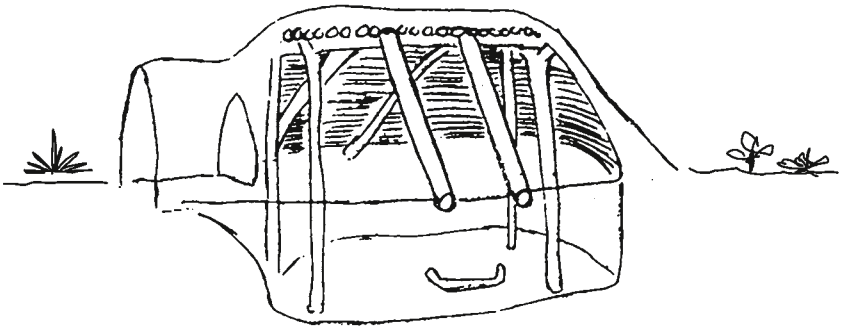


SET-UP: Discuss the background information and any other research you may wish the students to do.

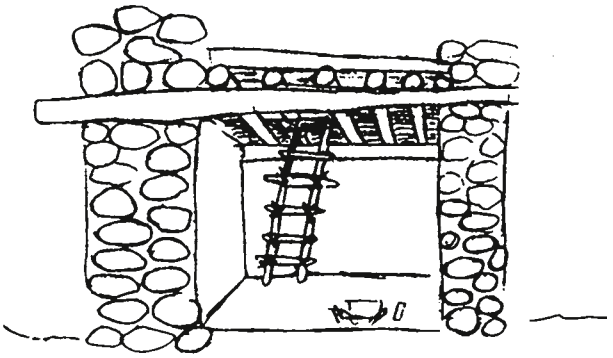
PROCEDURE: Have the students answer the following questions, and discuss their answers to the questions.

Pithouse to Pueblo

PITHOUSE



PUEBLO



The Rise of Villages and Towns. Once Archaic hunters and gatherers adopted corn, squash/pumpkins, and beans and began farming full time, they settled near their crops all year round. Thus they needed strong, permanent houses.

Between 200 B.C. to A.D. 700, most people in the Southwest lived in pithouses. A pithouse is a semi-subterranean house built of poles, woven branches, grasses, and clay. Different people living in different regions of the Southwest built different styles of pithouses. Some were deeper than others. They ranged in shape from round to oval to rectangular. Deeper pithouses were built in the uplands, where winters were often cold, while shallow pithouses were built in the hot deserts. Villages of pithouses ranged in size from several pithouses in the uplands to hundreds of pithouses in the low deserts.

Usually the sizes of villages grew over time as more crops were grown on more land. Storage pits inside and outside pithouses and community/ceremonial structures were important elements of these early villages, too. People began making pottery to store and cook the crops they were raising. Stored crops allowed families and groups of families to live in one area for the whole year. Extended families and clans lived together in villages. Because larger groups of people were living together, they chose leaders to make decisions, gain spiritual assistance, and set aside structures for those purposes.

About A.D. 700, the people of the Colorado Plateau began building aboveground storage rooms of stone, clay, logs, and branches near their pithouses. Eventually, they moved out of the pithouses into masonry rooms, which they connected together into a village. Subterranean rooms/kivas, similar to pithouses, were used mainly for community/ceremonial rooms.

Gradually the idea of building masonry villages moved south until most people of the Southwest were living in stone/clay towns of connected houses. Villages and towns of connected rooms housed more people in less space than pithouses. By the 12th

century, there were many villages and towns, dependent on full time agriculture and complemented by hunting and gathering, all over the Southwest.

The early farmers of the Verde Valley lived in pithouses like other farmers in the Southwest. By A.D. 700, the three major cultures of the Southwest are distinguishable within three geographical regions: the Anasazi/ Ancestral Puebloans on the Colorado Plateau; the Mogollon in the mountains; and the Hohokam in the low desert. The Verde Valley is a transitional zone between the Colorado Plateau, the mountains, and the lower desert, so people living there were influenced by trends from all three regions.

It is not clear whether the early farmers of the Verde Valley were indigenous Archaic peoples influenced by the Mogollon and Hohokam or immigrant Mogollon/ Hohokam. They had some traits of both groups. Their pithouses varied in depth and shape, even within the same village. Even their pottery is a curious mixture. The color, shapes, and clays are similar to Mogollon pottery, but the construction techniques are like those of Hohokam pottery. Although the Verde Valley farmers definitely participated in the Hohokam ritual/exchange network based around villages with ballcourts and small platform mounds, they retained simpler styles and mixed mortuary practices, including both extended burials and cremations.

The early farmers around Flagstaff, who were named the Sinagua, and the early farmers of the Verde Valley had contacts with one another and with the Ancestral Pueblos. Ballcourts, clay figurines, palettes, stone bowls, and shell jewelry moved north to the Sinagua, while turquoise, argillite, obsidian, and Anasazi pottery moved south to the Verde Valley and the Gila and Salt valleys of the Hohokam. Once the Ancestral Pueblo began building masonry pueblos, the idea soon filtered through the Flagstaff area to the Verde Valley. After A.D. 1100, the farmers of the Verde Valley, who are known as the Southern Sinagua, built masonry pueblos and cliff dwellings along the Verde and its tributaries.

EXTRA CREDIT: EXODUS

About A.D. 1400, the Sinagua left the Verde Valley. It is still not entirely clear why they left. Some theories proposed by archeologists suggest that their reasons for leaving might have included one or a combination of the following: drought, warfare, disease, famine, disruption of trade, and/or depletion of the natural resources. Although all or some of these reasons are plausible, more research is necessary to find the answer to this ancient riddle. That is why it is so important to leave artifacts where they are found. They can help archeologists piece together the puzzle.

Although we are not absolutely sure where the Sinagua went, archeologists have found some evidence that suggests they went north and joined the Hopi or other Pueblo peoples. Some Hopi clans also have traditions in which their ancestors live in the area at one time. A few people may have stayed in the area and intermingled with other incoming groups such as the Yavapai.

STUDENT WORKSHEET: PITHOUSE TO PUEBLO

QUESTIONS:

1. What is the advantage of living in a pithouse with a sunken floor?

2. After looking at the drawing of a pithouse and a pueblo room, which do you think could be lived in longer?

3. Why do you suppose the only entrance to some pueblo rooms was through the roof?

4. Why do you think Southwest farmers built rooms and villages in caves, too?

5. Why do you think most farmers in the Southwest eventually adopted masonary/adobe pueblo/villages?

EXTRA CREDIT QUESTION: Why do you think the Sinagua left?

OBJECTIVES

After completing this exercise the student will be able to

1. appreciate the importance of trade for the survival of a culture.
2. discuss the importance of trade to the development of culture.

GRADE: 3 to 5

AZ CURRICULUM STANDARDS:
Social Studies Standard 3 – Geography
Social Studies Standard 4 – Economics

GROUP SIZE: 5 to 30

DURATION: 1 to 2 hours

SETTING: Classroom

MATERIALS: large bag of oranges, 5-pound bag or corn, 5-pound bag of beans, 2 jars of jerky, squash, plastic knives, plastic hatchets, plastic cups, 5 bows and arrows, beads, chamois, cotton balls, bag of seashells, bag of feathers, 50 ice cream sticks

- Alternative: If the items necessary for this game are unavailable, they can be substituted for by having the items sketched and colored on 3″ x 5″ cards and then copied and distributed. You can have a class session before the game and have the students produce these pictured cards.

Educator's Outline for

LET'S TRADE!

SET-UP: Give all the students, except the hunters, a hand full of corn, 3 slices of squash, and a handful of beans.

Give 1 student a bag of oranges, too.

Give 2 students a jar of jerky, 2 bows and arrows, a stack of chamois for animal skins, and 2 plastic knives each.

Give 1 student the plastic hatchets.

Give 10 students 5 ice cream sticks.

Give 2 students a bag of cotton balls.

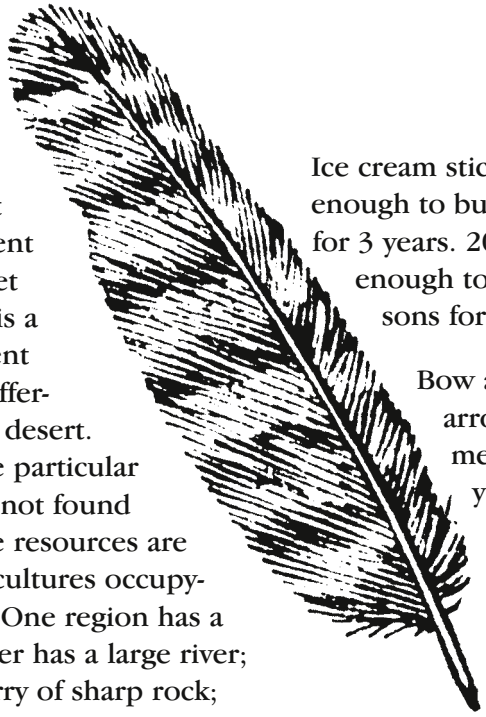
Give 1 student a bag of seashells, a bag of beads, and a bag of feathers.

Optional: 3 students will have plastic cups.

PROCEDURE: Students must acquire what they need to survive and live comfortably through trade. Everything in the exercise is tradable. At the beginning of the exercise tell the students that the minimum they need to survive is shelter, food, and water. Post on the board the list of what everything is worth or give each person or team a copy. The details of what they need will be discussed at the end of the game. Give the students 15 to 30 minutes to trade and acquire what they need from each other. At the end of the exercise, see who survived and who did not. Individuals or teams of 3 to 5 can play this exercise. This game will test the student's knowledge about the physical necessities for human survival. A discussion should follow about the necessities for human survival, specialization, depletion of resources, and the importance of trade to a culture.

EXTRA CREDIT: Like many ancient groups, the Sinagua traded far and wide for many things, such as minerals, pottery, shells, copper bells, and macaws. Notice the decorated pottery in the museum. Archeologists believe that most of these decorated types were traded from other cultures such as the Anasazi/Ancestral Puebloans. The Sinagua usually made plain red/brown undecorated pottery. The Sinagua received seashells, copper bells, and macaws from the south and turquoise, argillite, and obsidian from the north and west.

Let's Trade



SCENARIO: The students represent members of different cultures at a market place. The region is a vast desert. Different cultures occupy different regions of this desert. Some regions have particular resources that are not found in other areas. The resources are controlled by the cultures occupying those regions. One region has a thick forest; another has a large river; another has a quarry of sharp rock; and a faraway region has citrus fruit, shells, and exotic birds. Because firewood has become scarce in populated areas, it has become a tradable commodity, too. Some cultures specialize in producing certain products for trade.

VALUES:

Corn: 10 kernels of corn represent enough corn to last 1 person for 1 year.

Beans: 10 beans represent enough to last 1 person for 1 year.

Squash: 2 slices (or one zucchini) are enough to last 1 person for 1 year.

Jerky: 1 slice of jerky is enough meat to last 1 person for 1 year.

Oranges: 1 orange is enough to last 1 person for 1 year.

Cotton: 3 cotton balls are enough to make clothes for 1 person for 1 year.

Skins: 1 skin is enough to clothe 1 person for 1 year. 3 skins are enough to build a shelter for 1 year.

Ice cream sticks: 5 ice cream sticks is enough to build a shelter for 3 people for 3 years. 20 ice cream sticks are enough to cook and heat for 2 persons for 1 year.

Bow and arrow: 1 bow and arrow is enough to hunt meat for 3 people for 1 year.

Knife: 1 knife is enough to cut meat and vegetables for 3 people for 1 year.

Hatchet: 1 hatchet is enough to cut wood for 3 people for 2 years.

Seashells: 4 shells are enough to make 1 necklace.

Feathers: 2 feathers are enough to make 1 headdress; 5 feathers are enough to make 1 robe; 10 feathers are enough to make 1 pillow. 20 feathers are enough to make 1 insulated blanket for 3 people.

Optional: Plastic cups: 1 plastic cup represents enough water to last 1 person for 1 year.

SURVIVAL: In order to survive for one year, each player needs:

10 beans or 1 slice of jerky: All people need protein found in animal or plant products in order to survive. Without protein brain function will suffer and eventually the individual will die.

3 slices of squash: Humans cannot live on meat alone. A diet of only meat will lead to protein toxicity. Some

greens or vegetables are required in order to survive.

1 orange: Vitamin C is necessary to keep from getting scurvy. This vitamin is present in a variety of different fruits. Without this vitamin an individual will get sick and probably die.

3 skins or 5 ice cream sticks: A person needs shelter to get out of the heat or the freezing cold. A person needs wood to burn for heat (20 more ice cream sticks) or can survive by having a shelter and lots of blankets.

1 hatchet or 1 knife: These tools are necessary in order to cut wood and build a shelter. A person can build a temporary shelter by cutting material with a knife.

We will assume that all individuals have enough water to survive. But, if you want to make water a tradable item, you can use the plastic cups to represent stored or rights to water access.

A rich person or culture will have a minimum of all of the above and:

• Extra corn, beans, squash, and jerky to last for the winter and lean years. This will ensure the food supply and allow goods to trade for other items.

• Extra beads, shells, and feathers: Once the needs for survival are met, a person or culture can acquire extra material to trade for other necessities or to express themselves through art and ritual. In some cultures, a few individuals control access to necessities and some valuable items in order to legitimize their position or status.

QUESTIONS:

1. What do you think the Sinagua may have traded for the decorated pottery?

2. Where do you think the seashells came from?

3. Where do you think macaws (parrots) came from?

For Question 4 and 5: Ancient Southwestern traders traveled hundreds of miles on foot. They crossed barren deserts and rough mountains during both day and night to reach the Gulf of California and other areas. They did not have compasses. They probably used landmarks and the sun and stars to find their way around.

4. Look outside at night. Which way is north, south, east and west?
   Hint: Find the Big Dipper.

5. During the day go outside. Which way is north, south, east and west?
   Hint: Which directions does the sun rise and set from?

OBJECTIVES

After completing this exercise the student will be able to

1. discuss the differences and similarities between the ancient Southwest cultures.
2. identify the general regions that were inhabited by the early Southwest cultures.
3. identify the different pottery styles characteristic to particular prehistoric Southwest cultures.

GRADES: 4 to 8

AZ CURRICULUM STANDARDS:
Social Studies Standard 1 – History
Social Studies Standard 3 – Geography
Social Studies Standard 4 – Economics

GROUP SIZE: 5 to 30

DURATION: 30 to 60 minutes

SETTING: Classroom or museum

MATERIALS: Paper, pencil, map of Southwest cultures, and pottery pictures

Educator's Outline for

WHO WERE THE PREHISTORIC SOUTHWEST PEOPLE?

SET-UP: This exercise can be done before or after a field trip to a museum or a national monument. Discuss the background information on the various Southwest cultures, including their names, locations and styles of pottery. You will need a map of Southwest cultures for the students to refer to.

PROCEDURE:

EXERCISE 1. Give the students a blank map of the Southwest. Have them draw the general regions inhabited by the five prehistoric Southwest cultures.

EXERCISE 2. Show the students a series of sketches and photographs of prehistoric Southwest pottery. Given the information included in the questions about each vessel and the information in the background section, have the students guess which ancient Southwest culture created the pieces of pottery.

Who Were the Prehistoric Southwest People?

The Ancestral Pueblo or Anasazi

The Ancestral Pueblo peoples are best known for their stone pueblos and cliff dwellings, which they built over much of the Colorado Plateau. The Anasazi are also known for kivas, which are usually round subterranean structures used for ceremonies and community gatherings. During the late Pueblo periods, the Western Ancestral Pueblos used square kivas. They were excellent dry farmers, who survived in areas today many consider impossible to live in. The Anasazi were skilled potters, who painted black geometric designs on white pottery. They also made plain and corrugated gray pottery. After A.D. 1300, the Ancestral Hopi, or Hisatsinom, made a black-on-yellow pottery by firing the same gray clays at high temperatures with coal. This was some of the best Native American pottery ever made, and was highly prized all over the Southwest and beyond. It was traded into many other areas.

The Mogollon

The Mogollon dwelt in villages of deep pithouses. Some large villages had large community pithouses called "great kivas." After A.D. 1000, the Mogollon built stone pueblos and cliff dwellings similar to those of the Anasazi. Their kivas were usually square rather than round. The Mogollon farmed in the mountains of Arizona and New Mexico and into southern New Mexico and northern Chihuahua. They made plain brown or red pottery. Sometimes the plain pottery was corrugated or painted with red, black, or white geometric designs. After A.D. 1000, they began painting black and white geometric designs on red pottery. Black and white designs on red background formed what is called polychrome pottery, which is pottery with three or more colors. The Mimbres, a subgroup of the Mogollon of southern New Mexico, made a well-known style of black-on-white pottery incorporating portrayals of animals and people with geometric designs.

The Hohokam

The Hohokam lived along the Salt, Gila, Santa Cruz, and San Pedro rivers near the present cities of Phoenix and Tucson, Arizona. They used the rivers to irrigate many fields of corn, beans, squash, cotton, barley, amaranth, and agave. The Hohokam lived in small villages of clustered shallow pithouses. Some large villages had plazas with earthen ball courts and small platform mounds. After A.D. 1200, during the Classic period, the

Hohokam moved into walled adobe villages. They built larger platform mounds with buildings on top. These platform mounds may have been temples, community storehouses, and /or the homes of important priests or leaders. Large three-or four-story "great houses" were built at the most important villages, too. A major pottery ware made by the Hohokam was red-on-buff with geometric, animal, and human designs. The Hohokam traded for shell, copper bells, mirrors, and macaws from Mexico. They also made beautiful jewelry out of the shell obtained from the Gulf of California and the Pacific coast, and carved beautiful stone palettes, and bowls. All these items were traded among Hohokam villages and to other Southwest cultures. Trading probably occurred at markets set up when ball games and other ceremonies were taking place at the ball courts and the platform mounds.

The Salado

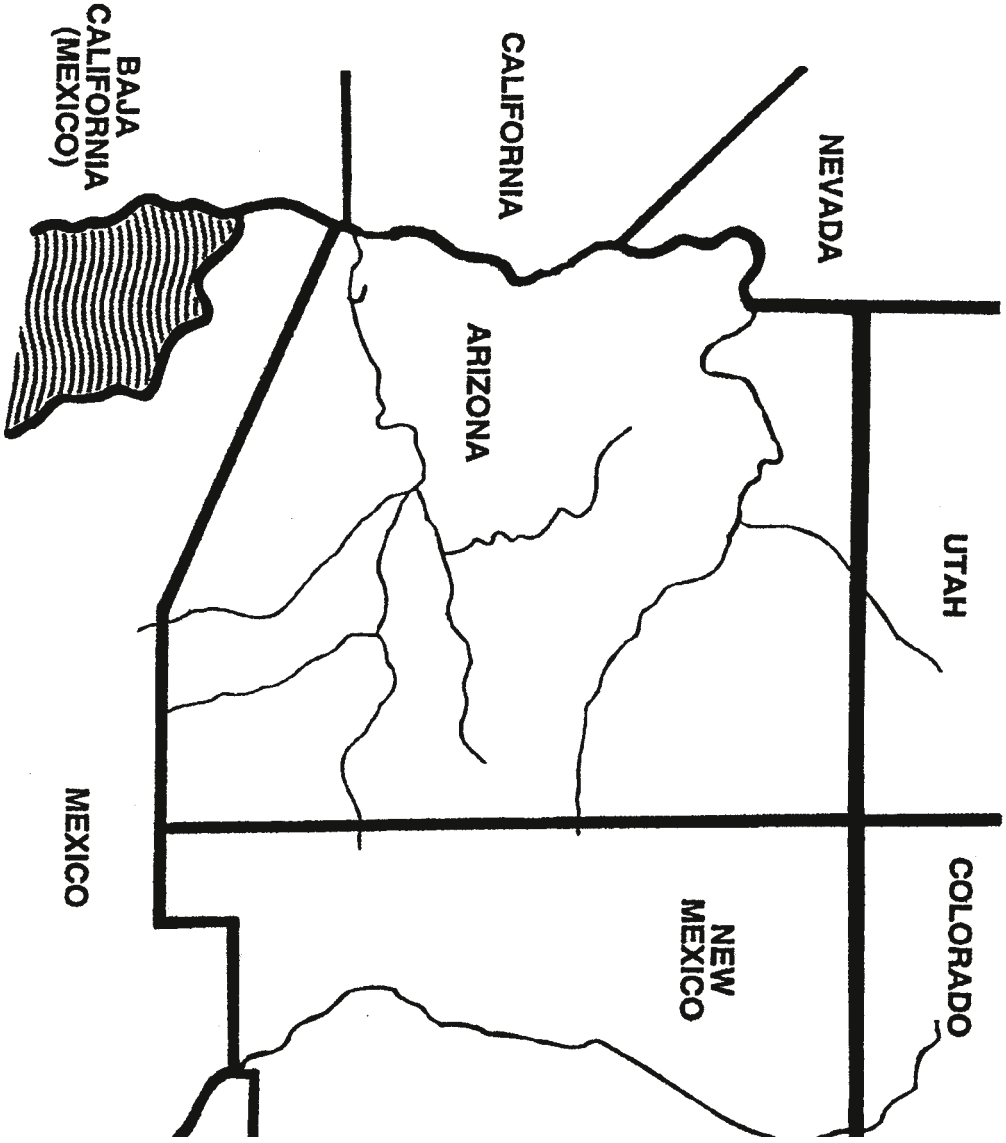
The Salado built both cliff dwellings and walled pueblos with platform mounds similar to those of the Hohokam. They inhabited and farmed the area along the Salt River from the 12th to 15th centuries. Their distinguishing feature was their polychrome pottery. This style consisted of bold geometric designs in three or more colors. This black/white/red style was so popular that it was traded and copied among the Hohokam and Mogollon.

The Sinagua

The people we call the Sinagua lived in central Arizona near present-day Flagstaff and in the Verde Valley. Before A.D. 1100, they had adopted Hohokam-style plain red pottery, shell jewelry, clay figurines, stone palettes and bowls, ballcourts, and irrigation farming along the Verde and its tributaries. They also continued dry farming in the uplands away from the river and its tributaries. The Sinagua lived in small pithouse villages. Some large villages also had large communal pithouses, ballcourts, and small platform mounds. They traded with both the Anasazi and the Hohokam. About A.D. 1100, they began building pueblos and cliff dwellings similar to the ancestral Pueblo villages. Unlike the Anasazi, they continued to use community rooms in their pueblos rather than round kivas. A few pueblos bordering the Anasazi region had both community rooms and square kivas. Although the Sinagua began building Anasazi-like pueblos and cliff dwellings and using Anasazi black-on-white trade wares, they still continued to make and use plain red or brown pottery with little or no decoration, and also other simplified Hohokam-style items

EXTRA CREDIT: Choose an ancient pottery style. Make your own pot or bowl out of papier-mache. Use a balloon to form the bowl and then paint a design you like on it.

EXERCISE 1: On the map of the Southwest, draw the general regions inhabited by the five prehistoric Southwest cultures.



STUDENT WORKSHEET: WHO WERE THE PREHISTORIC SOUTHWEST PEOPLE

EXERCISE 2: Which Southwest culture made each of these pieces of pottery?

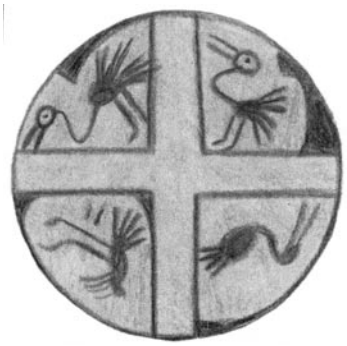
a. This is a black on white mug found at Mesa Verde National Park, Colorado.

b. This is a plain corrugated jar from the Colorado Plateau.

c. This is a polychrome pot with a black/red/white design found at Tonto National Monument near the Salt River in Arizona.

d. This bowl has a red-on-buff design.

5. Here we see a black-on-white bowl with a person and two parrots portrayed on it that was found in southern New Mexico.



6. This bowl has a red-on-buff bird design.

7. This plain brown jug with a corrugated neck was found in southern New Mexico.

8. What culture made this red-on-buff platter?

STUDENT WORKSHEET: WHO WERE THE PREHISTORIC SOUTHWEST PEOPLE

9. This is a set of two bowls and one pot. Each vessel has more than two colors.

10. This is a plain red bowl with no decorations on it. It was found in the Verde Valley.

11. This is a black-on-white mug found in the Verde Valley.

12. This black/white/red jar came from the White Mountains of Arizona.

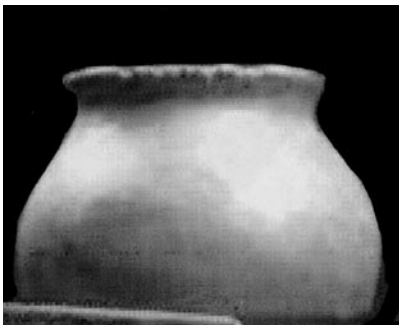
13. This black-on-white bowl with a hole was found in southern New Mexico.

14. Here is a black-on-yellow bowl found at Tuzigoot National Monument, which has been dated after A.D. 1300.

15. This plain red mug was found in the Verde Valley.

16. This black-on-white jar came from the Colorado Plateau.

STUDENT WORKSHEET: WHO WERE THE PREHISTORIC SOUTHWEST PEOPLE



17. This plain brown jar came from Tuzigoot.

18. This black-on-yellow bowl was traded to Montezuma Castle.

Educator's Outline for

TO PLANT OR NOT TO PLANT

PROCEDURE: Distribute background information and questions from the following student worksheet. Give students 30 minutes to read the information and answer the questions, and then discuss the answers with the whole class.

OBJECTIVES

After completing this exercise the student will be able to

1. discuss the pros and cons of farming and hunting-gathering life styles.
2. discuss which life style is better suited for the development of a complex society.

GRADES: 4 to 8

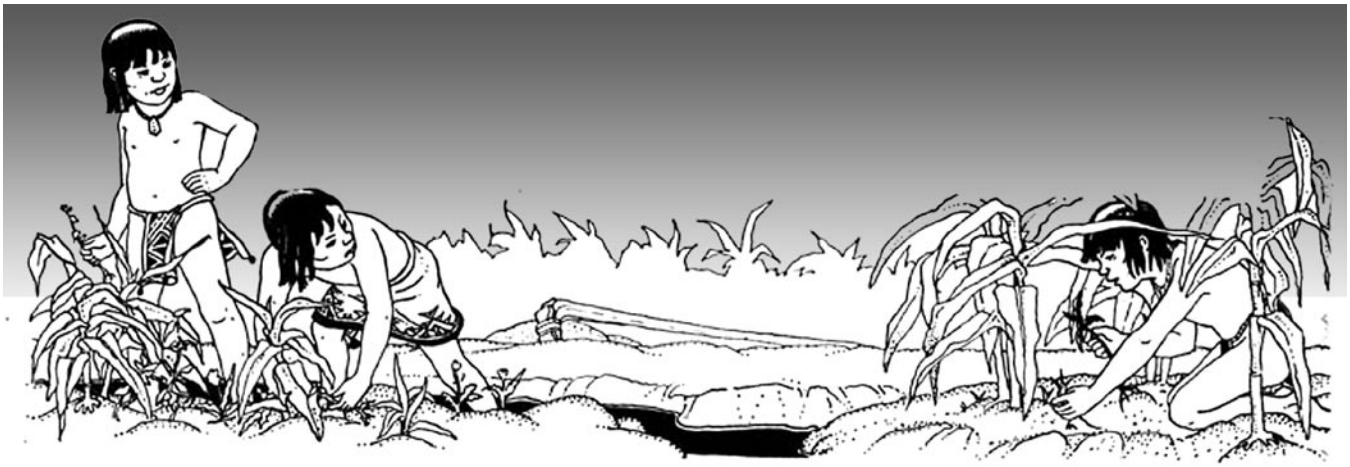
AZ CURRICULUM STANDARDS:
Technology Standard 5 – Technology research tools
Social Studies Standard 1 – History
Science Standard 4 – Life science

GROUP SIZE: 20 to 30

DURATION: 30 to 60 minutes

SETTING: Classroom, library or computer lab with Internet access

MATERIALS: Paper, pencil, and reference materials.



To Plant or Not to Plant

While the Sinagua and other Southwest cultures practiced agriculture, some Southwest cultures maintained a nomadic hunting-gathering life style, or a combination of hunting, gathering, and gardening life style. When the first Europeans came to the Verde Valley, the Yavapai and Apache were practicing a combination hunting, gathering, and gardening life style. Only a few hundred of them survived off the same land that thousands of Sinagua had subsisted on several hundred years before. Although both the Yavapai and Apache grew a little corn, beans, and squash in small gardens, they spent most of their time gathering wild plants and hunting animals. In order to collect plants that ripened seasonally, they moved around and in and out of the Verde Valley at different times of the year. They lived in brush huts that could be constructed quickly from materials close at hand. Although they did store some food in baskets in their huts or caves, they usually ate what was available and easy to carry back to camp. They usually lived in small family groups most of the year. Occasionally the whole band gathered to collect seasonal harvests of wild plants, animals, and crops. Healing, hunting, and war rituals performed by a shaman were important at family and band gatherings when they were not involved in food collecting. Raids on their enemies were another off-season pastime.

In contrast, the Hopi and other Pueblo peoples lived in stone villages of several hundred to several thousand. They spent most of their days planting, tending, or harvesting their crops. They also conducted communal hunts and gathering trips during the off-season. Ritual and elaborate ceremonies based around the agriculture cycle took up much of the rest of their time. Although they defended their villages against raids and occasionally waged formal war on other villages, most of their time was involved in agriculture and the village life that supported it.

QUESTIONS:

1. Why did some groups maintain a hunting-gathering existence, while most were mainly farmers?

2 .Which life style would require more work in order to survive?

3. Which life style would allow more spare time?

4. Would hunter-gatherers or farmers have a greater variety of food in their diet?

5. Which life style would be exposed to more risks?

6. Which would feel more secure about their food source?

7. Which life style would be more subject to periods of feast and famine?

8. Who would require larger groups in order to survive?

9. Which would be more mobile?

10. Which group would be required to stay in one location for longer periods of time?

11. Which group would tend to build permanent structures?

OBJECTIVES

After completing this exercise the student will be able to

1. discuss the differences and similarities between the Yavapai and Apache cultures.
2. discuss some cultural traits adopted by modern U.S. society from the different cultures of the Southwest.

GRADES: 3 to 8

AZ CURRICULUM STANDARDS:
Technology Standard 5 – Technology research tools
Language Arts Standard 1 – Reading
Social Studies Standard 3 – Geography

GROUP SIZE: 5 to 30

DURATION: 2 to 3 hours

SETTING: Library, classroom, or computer lab with Internet access

MATERIALS: Paper and pencil, and

Educator's Outline for

MODERN CULTURES OF THE VERDE VALLEY

SET-UP: This exercise can best be done in a library, or computer lab with internet access, or as home work , which is then discussed in class the following day. This exercise has two parts:

1. The origins of common items of the Southwest

2. The meaning and origins of common names we use today

PROCEDURE: Through interaction, many Southwestern cultures adopted methods and ideas from each other. In modern times, we have seen Native and African American cowboys, "Buffalo Soldiers" (African American soldiers); adobe homes; and many ethnic restaurants. Given a list of Southwestern items and names, have the students define them, and name what culture they first came from.

Modern Cultures of the Verde Valley

Yavapai

The Yavapai traditionally lived in thatch huts, and they were hunters and gatherers. They collected wild plants and hunted the wild animals of the area. They also planted crops, which they left unattended until they returned to harvest them. The Yavapai are related to the other Pai tribes of the Southwest. The Pai people followed the Colorado River and its tributaries north and east to northern Arizona. Eventually they diversified and became different tribes such as the Yavapai, the Hualapai, and the Havasupai of the Grand Canyon area.

Apache

The Apache have been traditionally nomadic to semi-nomadic hunting-gathering people. Some Apache bands did grow crops, too. Apache was a general name given to many groups of hunting-gathering people, whether Athabascan-or Yuman-speaking peoples. Today the term is usually applied to Athabascan-speaking cultures. It is believed that bands of Athabascan hunter-gatherers migrated south from Canada into the Southwest sometime between A.D. 1300 and 1500. These groups diversified and became the Navajo and the various Apache bands of today. Some were raiding societies, while others were quite peaceful.

Yavapai-Apache

It is not certain when the Yavapai and the Apache arrived in the Verde Valley. Some will say the Yavapai arrived soon after the Sinagua had left. Others will say the Yavapai were living here as friends alongside the Sinagua. Whatever, they were definitely living in the Verde Valley by A.D. 1583, when Spanish explorers recorded their presence. The Tonto Apache probably did not range into the Verde Valley before A.D. 1700. They were friendly with the already-established Yavapai, and intermarried with them. Since archeological sites of the Yavapai and Apache are not easy to find, date, or distinguish from each other or earlier Archaic sites, archeologists have not been able to date the Yavapai's or the Apache's arrival into the Verde Valley. Although the Yavapai and Apache were separate cultures speaking different languages, the U.S. military treated them as one tribe and forced both groups to move to the San Carlos Reservation. Later members of both tribes and mixed families returned to the Verde Valley and formed the Yavapai-Apache Nation of today. Some archeologists will say they arrived shortly before the Spanish in the 1500's. It is not certain when they arrived because both cultures lived lightly on the land. They did not make permanent structures or manipulate the land very much. Both generally constructed thatch huts. The Apache in particular traditionally were nomadic. These circumstances make their arrival very difficult to date.

Spanish and Mexican

Spanish explorers from New Mexico arrived in the Verde Valley in A.D. 1583. Here they found the Yavapai and Apache living peace-

fully. Spanish and other people from Mexico had been colonizing the Southwest since A.D. 1540. The Spanish dominated and allied with some tribes, and fought with others at various times. They established missions and presidios among the Pueblos and the O'odham (Pima and Papago). Although they colonized most of New Mexico and Southern Arizona, the Spanish only explored the Verde Valley several times. Spanish rule ended in 1821, when Mexico won its independence from Spain. The Spanish and the Mexican people brought a rich cultural tradition into the Southwest. They were generally deeply religious peoples. The Mexican people specialized in extensive farming and ranching operations throughout much of the Southwest. After the Mexican-American War and the Gadsen Purchase, the Southwest, including Native American and Mexican residents, became part of the United States of America. Then both Mexicans and Americans came to settle in the Verde Valley for the first time in the 1850s.

People of the U.S.

The first people of the U.S. who came into the Southwest were mountain men, who trapped furbearing animals and traded with native peoples after the Lewis and Clark expedition of 1804. After the treaty of Guadalupe Hidalgo, ending the Mexican-American war in 1848, many settled in the Southwest. Large numbers of prospectors passed through on their way to California during the Gold Rush of 1849. Later they returned to prospect for gold in Arizona, too. Mormons, the military, settlers, and immigrants came to settle the new territories. This led to many conflicts between the new settlers and peoples already here. Gradually the U.S. dominated the Southwest, but the people of the U.S. adopted much from the previous residents, which gives the modern Southwest a very distinctive flavor.

QUESTION: Where did it come from?

1. Tortilla
2. Pueblo
3. Horse
4. Chaps
5. Moccasins
6. Sombrero
7. Cowboy hat
8. Kokopelli
9. Katsina
10. Maize, or Corn
11. Cotton
12. Tomato
13. Potato
14. Chile pepper

QUESTION: What does the name mean? Where did these names come from?

1. Coyote
2. Arizona
3. California
4. Mexico
5. Colorado
6. Utah
7. Coconino
8. Lariat
9. Chaps
10. Coati
11. Metate
12. Mano
13. Yuma
14. Tucson
15. Mesa
16. Phoenix
17. Palo Verde
18. Mingus
19. Prescott
20. Sedona
21. Mesquite

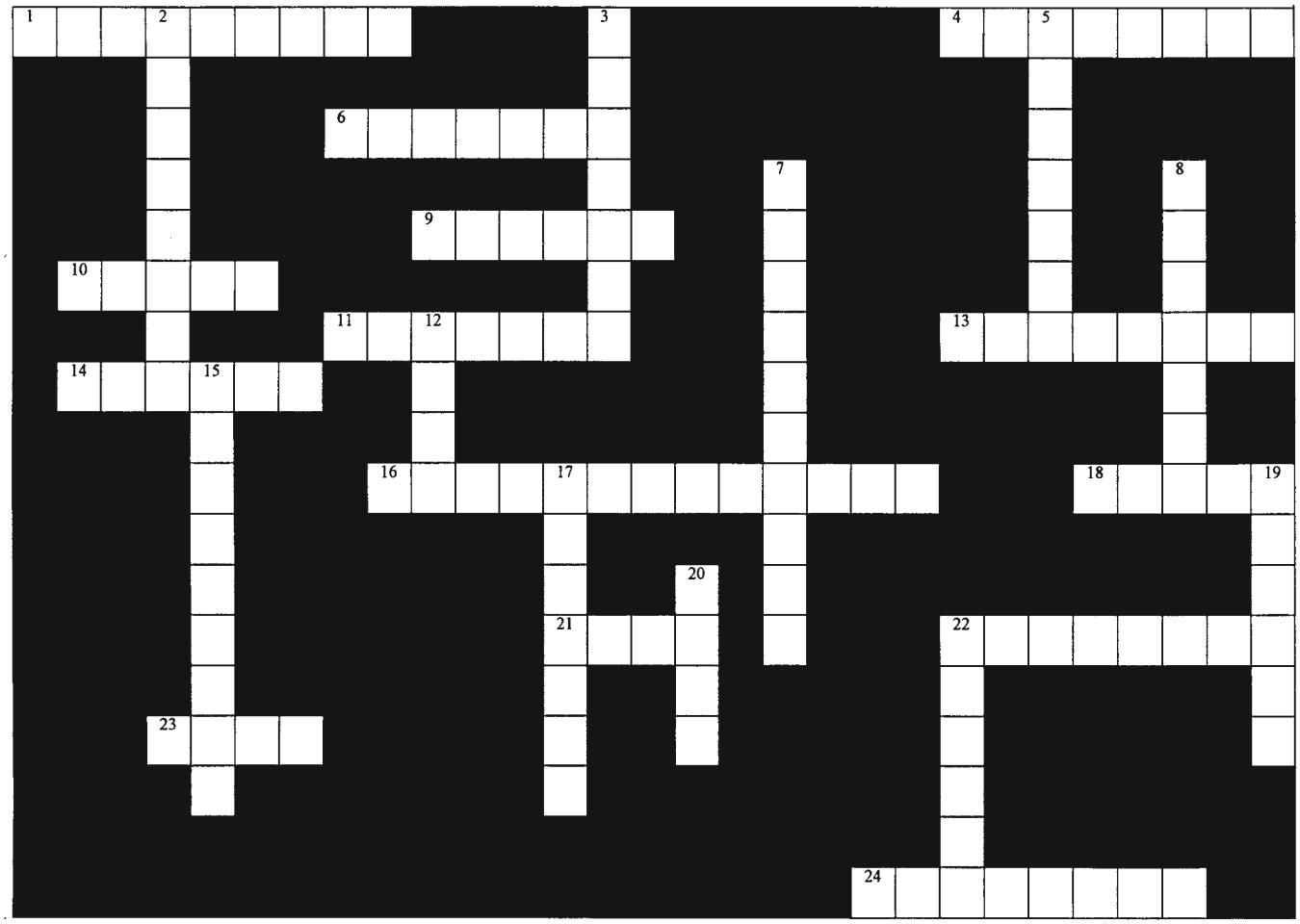
EXTRA CREDIT:

- The Apache word for people is "-nde'"
- The Yavapai word for people is "pai"
- The Navajo word for people is "dine'"
- The Hopi word for people is "senom"

Which two cultures are most closely related to each other?

Do you have any friends who speak a language other than English? Ask them how to say "How are you?" and "I am fine" in their language.

Archeology Crossword



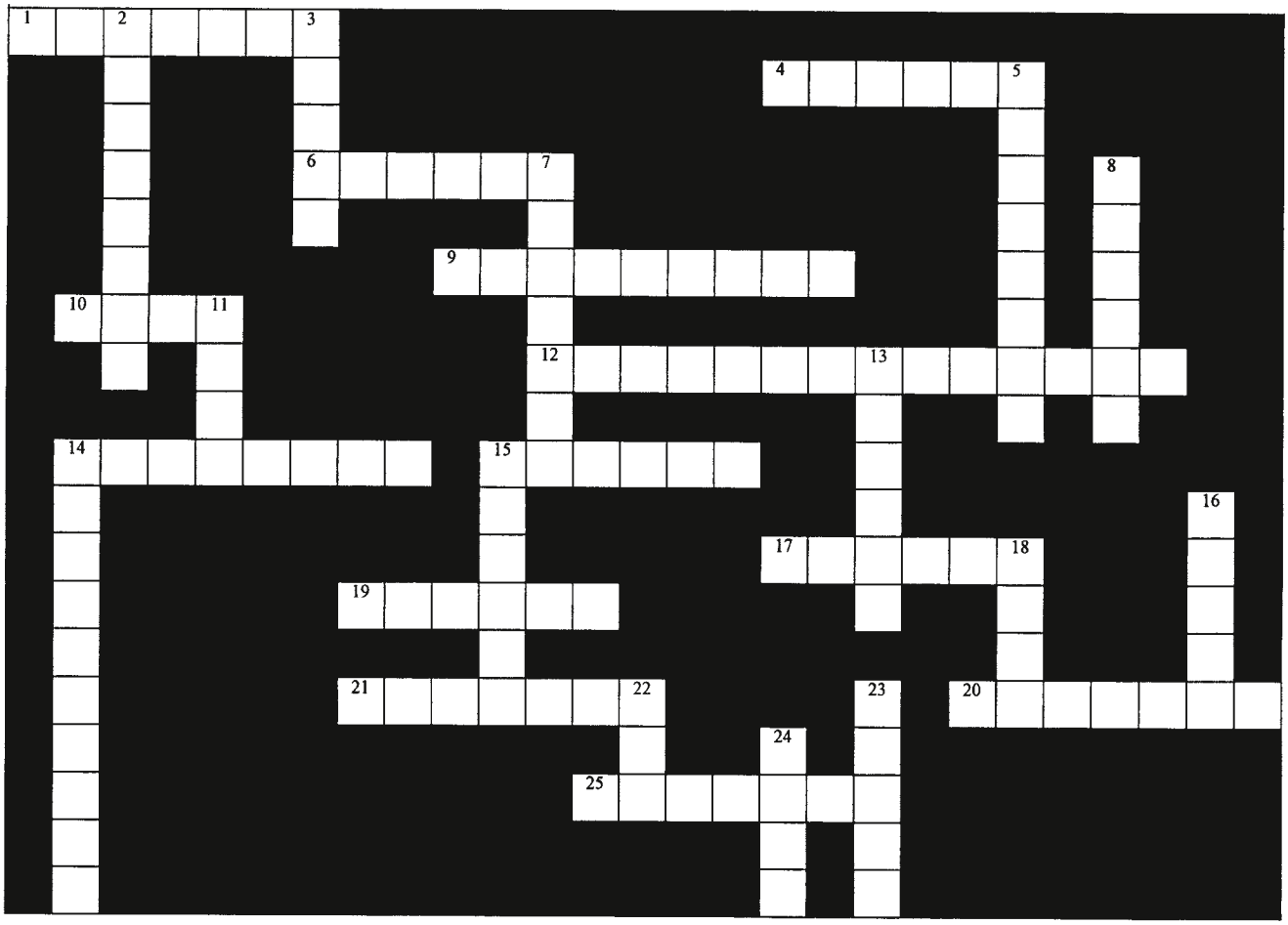
Across

1. Aztec king
4. Decorative wrist ornament
6. Place where ashes are found
9. Wooden climbing device
10. Implements used for work
11. Art made for wearing
13. Something old left behind
14. Stone, grinding bowl
16. Home in a cave
18. Ornamental neckwear
21. Grinding stone held in hand
22. Broken pieces of pottery
23. Hole in a stone cliff
24. Ancient chopping tool

Down

2. "Crooked water"
3. Baked clay containers
5. Very, very old
7. A design pecked into stone
8. People of the Verde Valley
12. Steadily flowing spring
15. Projectile point
17. Cultivating plants for food
19. Open footwear, woven
20. Food grown on a stalk
22. Stone house with many rooms

Ancient Sinagua Crossword



Across

1. Baked clay containers
4. Hunting projectiles
6. Prickly desert plant
9. Aztec king
10. Food grown on stalks
12. Small, bushy-tailed rodent
14. Broken piece of pottery
15. Wooden climbing device
17. Stone house with many rooms
19. Stone grinding bowl
20. Cultivating plants for food
21. Open footwear
25. Very, very old

Down

2. "Crooked water"
3. Long-leafed plant, used to make rope
5. Large, strong, thirsty tree
7. People of the Verde Valley
8. National park protector
11. Food produced by walnut trees
13. Container for carrying arrows
14. Design pecked into stone
15. Small, long-tailed reptile
16. Large black bird
17. Water jug, in Spanish
22. Ball of fire in the sky
23. Fluid, necessary for life
24. Natural flowing spring

Word Search

All of the following terms play an important role in the story of Montezuma Castle, Montezuma Well, and Tuzigoot. Try to find as many words as possible in the following word search. Words may be found up, down, across, at an angle, and backwards.

limestone	ladders	Sinagua	weaving
rock squirrel	Hohokam	metate	Tuzigoot
Montezuma	mano	Yucca	salt bush
mesquite	gray fox	irrigation	Arizona sycamore
snake	pottery	farming	lizard
corn			

R E L A D D E R S T N Q A S R I

O Y I R L K C M E S Q U I T E R

C R M I S O V S D N U K P L G R

K E E Z T A T D R A Z I L I H I

S T S O G E O I Q K X R Q Z O G

Q T T N N M O N T E Z U M A H A

U O O A I M G E P G G S N X O T

I P N S V N I Y C O R N O D K I

R F E Y A U Z J A E A F X E A O

R A T C E L U F T U Y C R S M N

E R L A W T T A F E G E C C L R

L M Y M N S T F R I H A T U I T

Y I O O K E N G S O R C N D Y L

T N B R M A N O L K S B V I R D

S G K E P G K H S U H T L A S E