

CRYSTAL RIVER MOUNDS ACTIVITY BOOK



FLORIDA PUBLIC
ARCHAEOLOGY
NETWORK

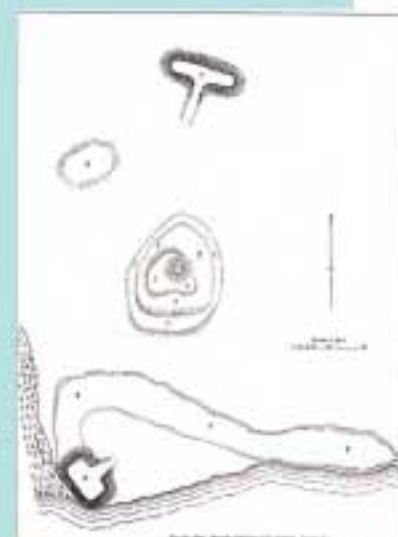
HISTORY AND RECENT PAST OF CRYSTAL RIVER

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C.B. Moore

Almost 1,000 years after the last Native American left the Crystal River site, one of the most notable figures to be interested in the area was the archaeologist C.B. Moore. Moore conducted excavations at the site between 1903 - 1917 focusing mostly on burial mounds. His work revealed exotic burial goods, including copper, quartz, limestone pendants, and shell drinking cups. Three decades went by before another archaeologist examined the site. In 1951, Dr. Ripley Bullen began a 15 year investigation of the archaeological site. Bullen's work represents one of the first attempts to better understand the relationship between the artifacts, site features (such as the mounds, middens, and plazas) and the people who lived there in the past.



C.B. Moore's original drawing of the site.

In the 1960's, land owners dug out two-thirds of the large platform mound, Mound A, including the long ramp. They used the material for leveling and filling the area next to the mound to build a trailer park. The State of Florida then purchased most of the land in 1962 and opened Crystal River Archaeological State Park Museum officially in late 1965. The site became a National Historic Landmark in 1990.



Removal of midden from Mound A for trailer park.



View from Mound A towards trailer park. 1973



Ripley Bullen

Hey Friends!

My name is Tommy! I'm a gopher tortoise and I dig archaeology. Follow me through these activities and learn all about Crystal River's past and the people who lived here!



THIS BOOK BELONGS TO:

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West Central and Central Regional Centers
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WHAT IS ARCHAEOLOGY? 3

Archaeology is a science that helps us learn about people who lived in the past based on the things they left behind. These things are called **artifacts**. An artifact is anything a person has used, made, or eaten. Many times, archaeologists only find a small piece of an artifact. But whatever it looks like, each artifact is an important clue to what people were doing in the past!

IS IT AN ARTIFACT?

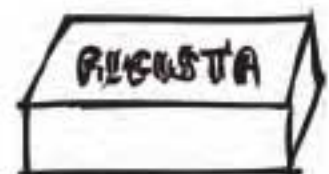
DIRECTIONS: Color in the items below. Which ones do you think could be an artifact? Circle all the items you think archaeologists could find as an artifact.



Glass Bottle



Shell Tool



Brick



Clay Pot



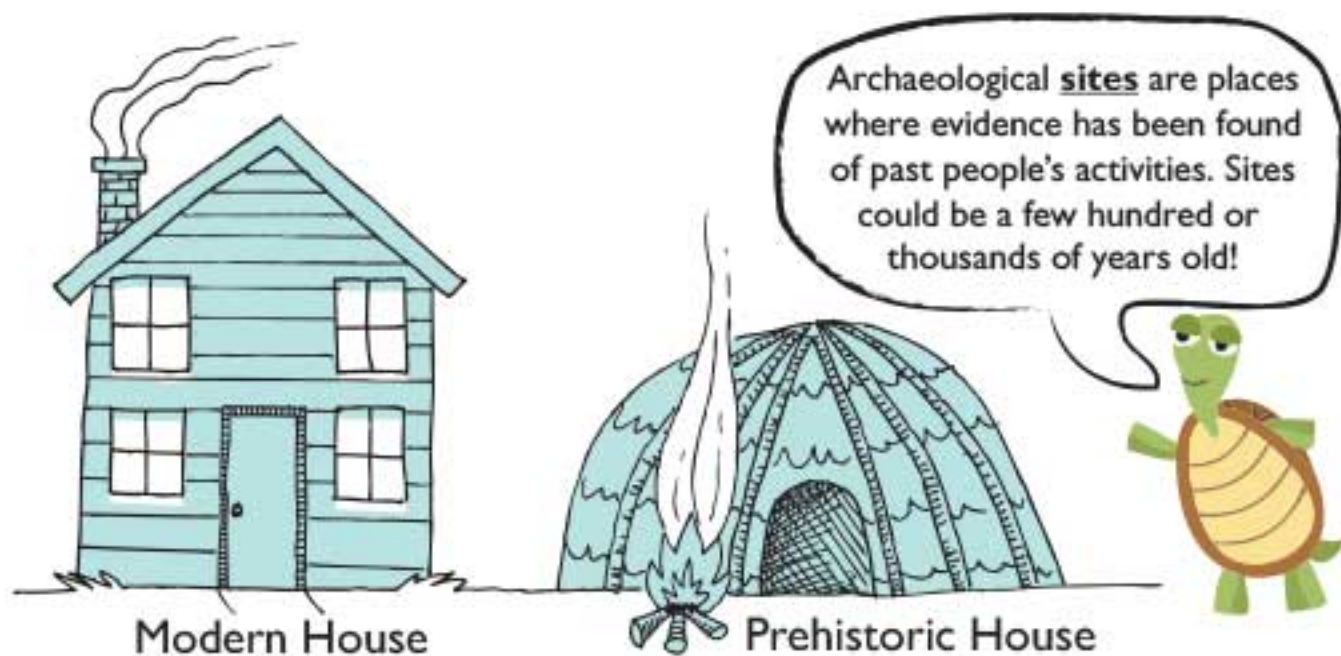
Seeds

Answer: All of these items could be artifacts!

WHAT IS ARCHAEOLOGY? 4

Each artifact that an archaeologist finds is a clue to the activities people were doing in the past. It's just like a detective trying to solve a mystery! Things like animal bones or pieces of plants can tell us what sorts of foods people were eating. A small toy like a marble can tell archaeologists that children were living and playing at a **site**.

The artifact itself is important, but even more important is where it was found and what other artifacts were found near it. Archaeologists call this **context**. Only when archaeologists look at all the clues together can they start to figure out the mystery of what life was like for people who lived in the past.

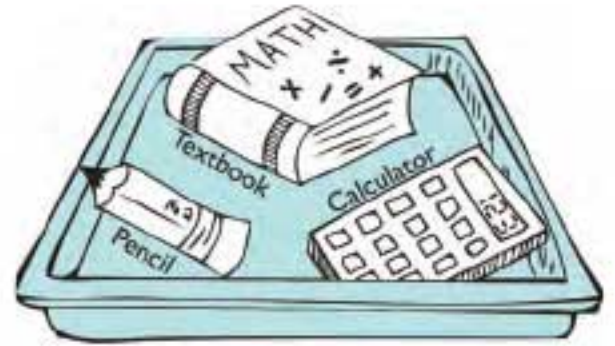


THINK LIKE AN ARCHAEOLOGIST!

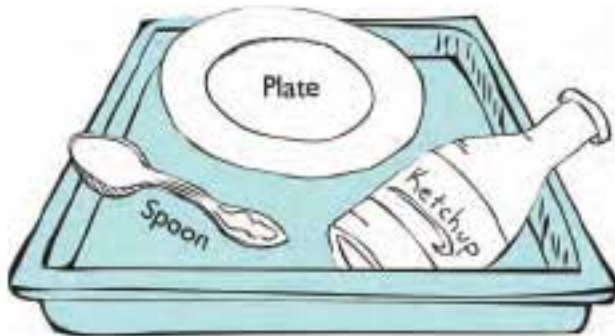
DIRECTIONS: On the following page are three trays full of artifacts that come from different sites. Look at the artifacts on each tray one at a time, and then together. What sorts of activities could you use each artifact for? For each tray think about what kind of site all the artifacts could have come from.

1. What activities could these items be used for?

2. What kind of site would have these artifacts?



TRAY 1



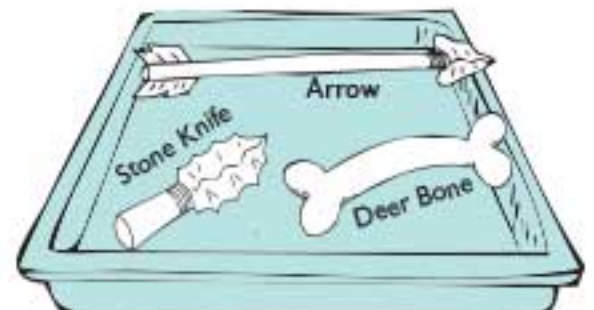
TRAY 2

1. What activities could these items be used for?

2. What kind of site would have these artifacts?

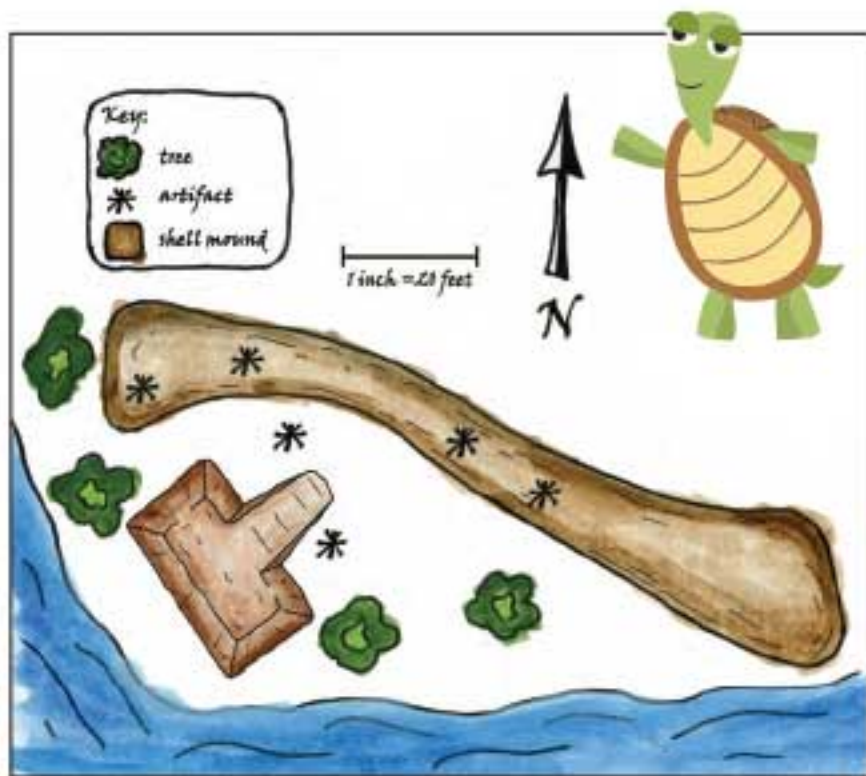
1. What activities could these items be used for?

2. What kind of site would have these artifacts?



TRAY 3

As we learned on the previous page, context is important to understanding what an archaeological site or artifact can tell us about past people. Even when archaeologists dig, they take apart that context but are careful to document every bit of it. That's why archaeologists take lots of notes and draw detailed maps to record everything they encounter in a dig site.



There are several things that a good map should always have:

- **Key:** Explains the symbols you use on the map so that other people can understand it.
- **Scale:** Tells you how the size of the map relates to the real world.
- **North Arrow:** Tells you how to position your map. North at the top, south at the bottom.

DIRECTIONS: On the next page, draw your own map of a room in your house like your bedroom or the living room. Make sure to include all the things you see in the room like furniture or other "artifacts". What would an archaeologist think about your room?

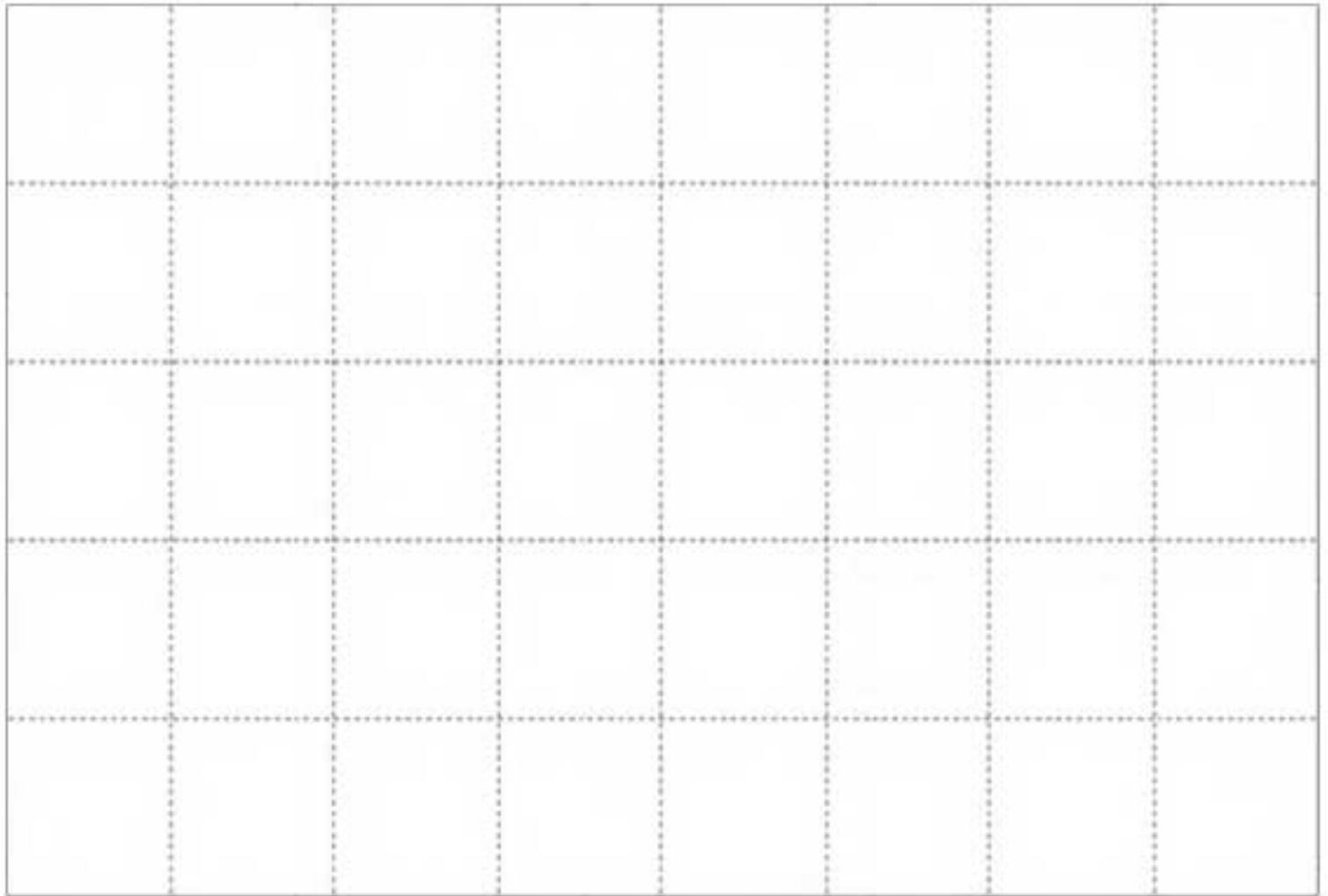
MEASURE WITH YOUR LEGS

DIRECTIONS: Have a parent or an adult lay out a measuring tape on the ground. Walk along the tape and count how many steps it takes you to go a certain distance. Write the numbers in the spaces below. Now you can measure distances without a ruler. Count how many steps it takes you to walk from one point to another!



IT TOOK ___ STEPS FOR ME TO WALK ___ FEET. ONE STEP = ___ FEET

NAME OF SITE: _____



KEY:

SCALE



FEET



CRYSTAL RIVER TIMELINE

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RECENT HISTORY: (1900 - Present)

Archaeology begins at the Crystal River Site in 1902. State of Florida bought a portion of the site in 1962.

HISTORIC: (1500 - 1900)

Europeans arrive in Florida and document changes for the Native peoples.

MISSISSIPPIAN: (AD 800 - 1500)

Lifestyles change as important leaders or chiefs influence villages.

WOODLAND: (500 BC - AD 800)

People began to settle year round in the Crystal River area to harvest shellfish and other animals from the rivers, estuaries, and surrounding woodlands. People began to make highly decorated pottery and building large mounds of shell and sand.

ARCHAIC: (7,500 BC - 500 BC)

As the climate warmed and sea levels rose, Archaic hunter-gatherers moved into the area of what is now Crystal River to fish and hunt along the coastlines.

People have been living in Florida for at least 12,000 years!



PALEOINDIAN: (10,000 BC - 7,500 BC)

Earliest evidence of humans in Florida.

PREHISTORY OF CRYSTAL RIVER

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Around 2,500 years ago during the Woodland period, populations grew larger and people began settling in more permanent camps along coasts and rivers. Around this time, people started populating the area today known as Crystal River.

Pottery from the CRYSTAL RIVER ARCHAEOLOGICAL SITE



Archaeologists use Prehistory to describe the time before written records!



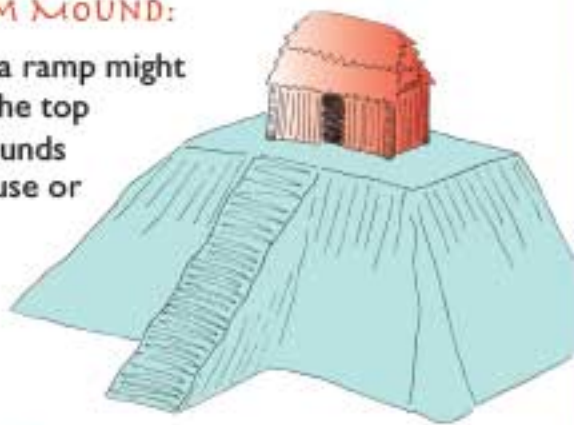
About 2,100 years ago people at Crystal River began construction of large shell and sand mounds. Over the next 1,000 years people built a large mound complex including multiple burial mounds made mostly of oyster shells and other shellfish. They established complex trade routes with Native American groups all the way up into the Ohio River Valley. Around 1,000 years ago the people that lived at Crystal River abandoned the site. Though Native Americans continued to call the central Gulf Coast of Florida home even after Spanish explorers arrived, archaeologists don't believe they ever lived at the Crystal River site again.

Florida's native peoples didn't just use the resources around them to survive, they also shaped and changed them for different reasons. Archaeologists today can see these prehistoric changes on the landscape in many parts of our state. Below are some examples of **mounds** and **middens** that archaeologists find in Florida.

MOUNDS: Piles of dirt, sand, or shell built for a specific use.

PLATFORM MOUND:

Sometimes a ramp might be built to the top of these mounds where a house or temple would sit.



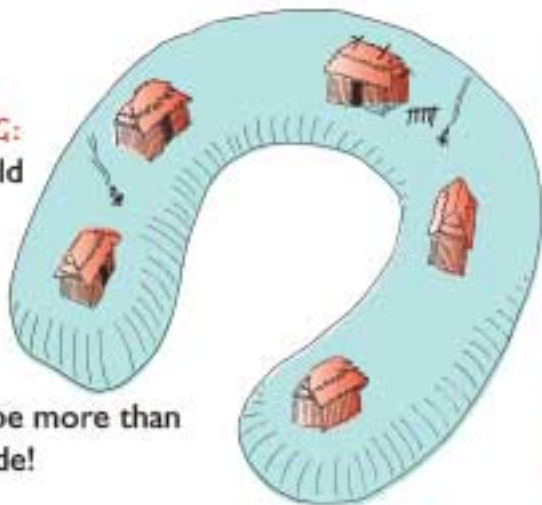
BURIAL MOUND:

Like a graveyard today, these mounds were used as a place to bury the dead.



SHELL RING:

People would build their houses on top of the shell ring, sometimes they could be more than 800 feet wide!



MIDDENS: Piles of trash built up over time by human activity.

HOUSE MIDDEN: Similar to a modern garbage dump, a house midden contains leftover bits of food like shell and bone, but also other trash like broken pottery and stone tools.



SHORELINE MIDDEN: These form over time just like a regular shell midden, but in a long line following the shore. Sometimes people would even build their houses on top of them to enjoy a nice breeze!



DIRECTIONS: Sometimes several different types of mounds and middens can be found at one site. Look at the map below, each mound or midden is labeled with a letter. In the spaces below, write what type of mound or midden you think each one is. Look at the descriptions on the previous page to help you decide. Answers on page 11.



A & H. Made of shell, large ramp to the top. These are:

C - G. Small and made of sand, archaeologists found graves inside them. These are:

J & K. Made of shell and other prehistoric trash, someone might have lived on top of them. These are:

MOUNDS & MIDDENS TODAY?

People in the past changed the land to suit their needs, but what about people today? Can you think of anything we build today that is a kind of mound or midden? Here are two examples to inspire you.



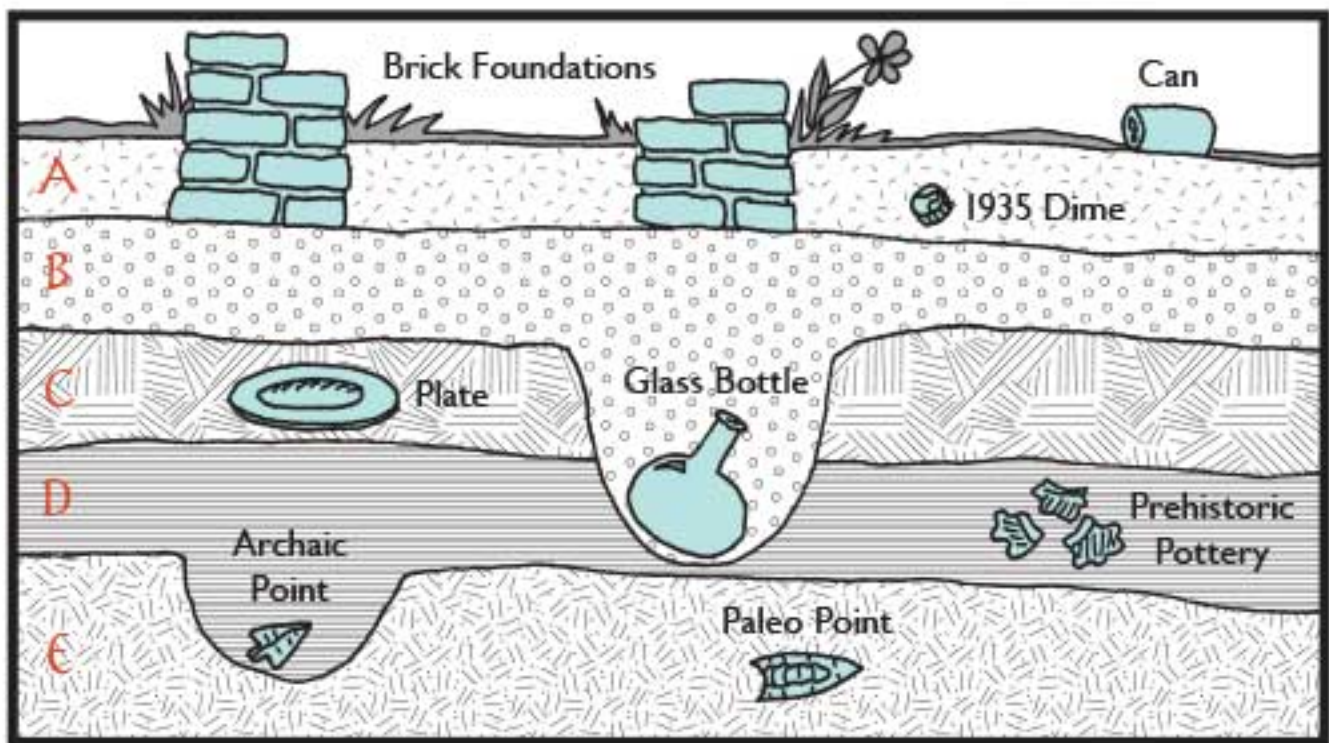
Trash Dump



Pitcher's Mound

Below is a diagram of **stratigraphy**, or layers of soil, where each layer represents a different time period. One way that archaeologists are able to tell how old an artifact might be is by looking at what layer of soil it came from. In general, the lower down a layer of soil is, and the artifacts it contains, the older it will be. Each soil layer above it will be younger than the one below it.

DIRECTIONS: In the diagram below is an example of stratigraphy and artifacts that an archaeologist might find. Each soil layer is labeled with a letter from A to E. Look at the diagram and then answer the questions below.



- Put the soil layers in order from oldest to youngest. _____, _____, _____, _____, _____
- What artifact is the oldest? Based on what you read, do you have any idea how old it could be?

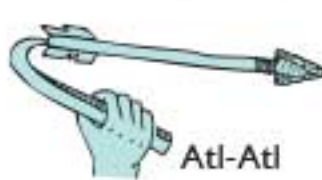
- Is the glass bottle older or younger than the artifacts in layer D? _____
- Which is older, the brick foundations or the can? How could the coin help you figure out the age of the brick foundations? _____

CRYSTAL RIVER UNEARTHED

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DIRECTIONS: Below are some questions about the types of foods and tools that might come from each specific time period. Based on what you read, answer the questions by circling which object you think came from each time period.

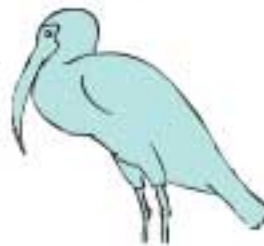
What tool would you expect to find in the **ARCHAIC** soil layer?



OR



In the **WOODLAND** period, people used the  to hunt:



OR



Which tool could you find in the **MISSISSIPPIAN** soil layer?



OR



In the **HISTORIC** period, people ate:



OR



If you were an archaeologist digging at Crystal River, you might find the remains of some of these foods and tools!

Answer: Atl-Atl (Archaic), Bird (Woodland), Hoe (Mississippian), Gun (Historic)



Don't forget Stratigraphy!
The lower down the soil
layer, the older the layer
and its artifacts will be!



HISTORY: A bad storm flooded the Crystal River Archaeological State Park causing part of the seawall along the Crystal River to fall in the water. When park staff rebuilt a new seawall, they saved most of the midden material that had fallen in the water because it was filled with artifacts. The Park then took the midden material and reconstructed a replica platform mound that looks like Mounds A and H.



Although they are not in their original locations, the items recovered are very real clues for us to learn more about the people who once called this area around the Crystal River Site their home.



While excavating, students were asked to look at each artifact and think about how that artifact got there. Who was the last person to touch it? What was it used for? How was it made? What does it tell us about the people who lived here? Most importantly, students enjoy being able to help contribute to our knowledge of the people who lived at the Crystal River site in the past.



By law absolutely no items are allowed to leave the Park. No one is allowed to keep recovered materials. All materials recovered are analyzed by students and then sent to the FPAN lab where they are archived and curated for the Division of Historical Resources in Tallahassee.

Enthnobotany is the study of the use of plants by people. Some archaeologists study plants to learn about the different ways past peoples used plants in their everyday lives. People have been learning about plants and their many uses for thousands of years. Different parts of the plants are used in different ways including for:

Food



Pine Nuts

Shelter



Tools



Spear

Medicine



Mortar and Pestel

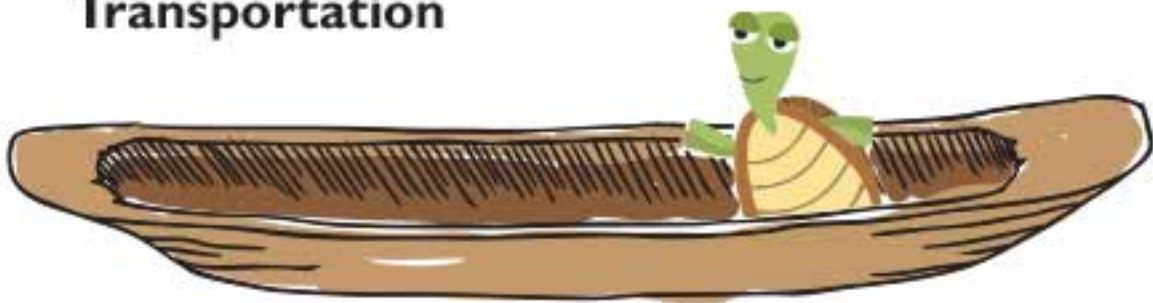
Dyes and Paint



Storage



Transportation



CRYSTAL RIVER'S NATURAL PAINTS AND DYES

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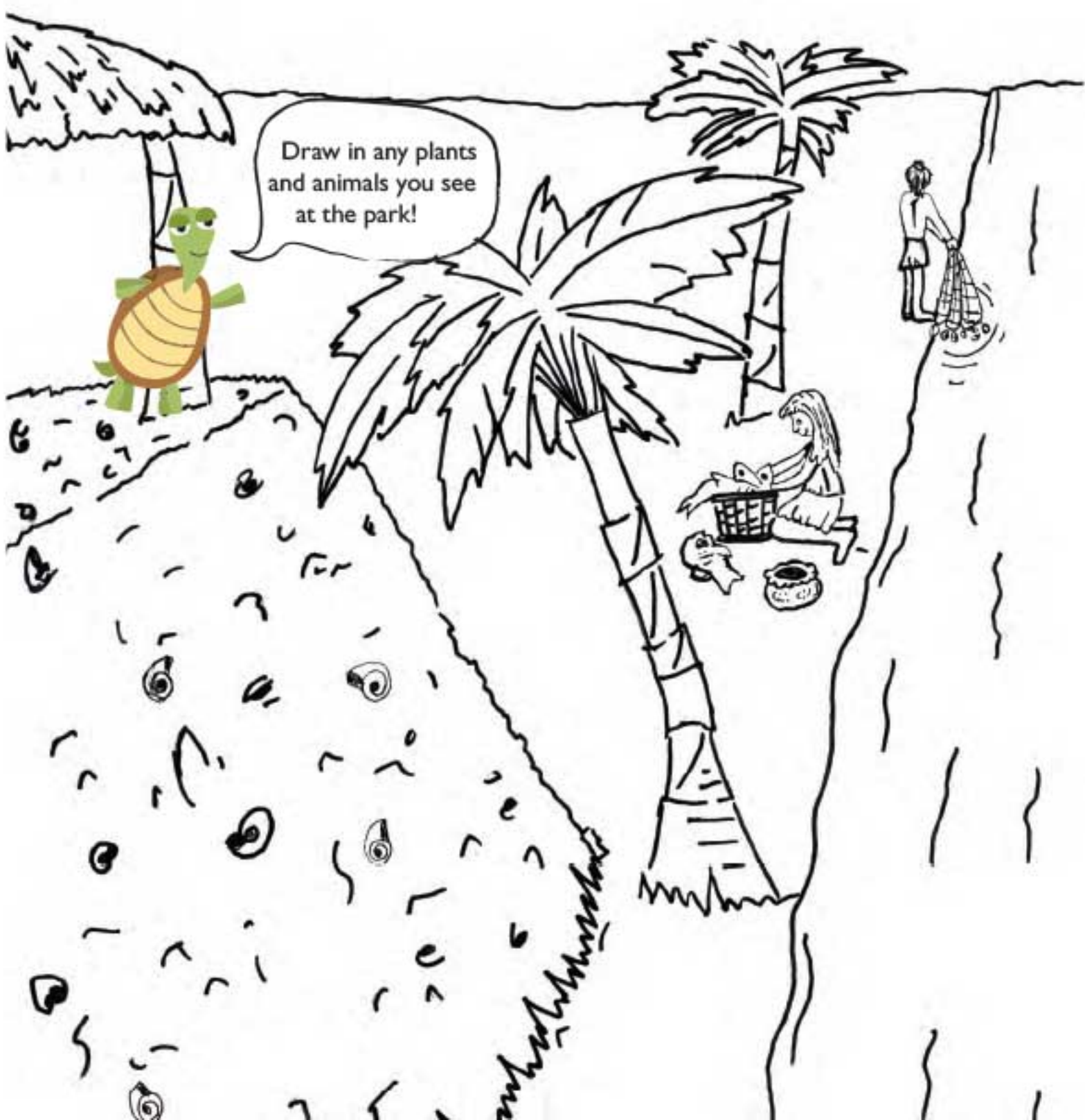
Before modern paints and dyes were invented, the Native people of Crystal River used the plants that grew around them to add color to items they made. Check out the chart below to see a list of native Florida plants and the colors they can create.

PLANT & PART USED	COLOR
Pine Trees: Cones	Brown
Prickly Pear: Fruit	Peach, Orange
Goldenrod	Yellow
Live Oak: Leaves, Roots, and Bark	Gray, Red
Beach Sunflower : Seeds, Flower	Purple, Green
Charcoal (Burned Wood)	Black

Information from "50 Common Native Plants Important to Florida's Ethnobotanical History" by Ginger Allen, Michael Bond, and Martin Main. Online: <http://edis.ifas.ufl/uw152>

COLORING A PREHISTORIC SCENE FROM CRYSTAL RIVER

DIRECTIONS: On the next page, color your very own scene of what a village site might have looked like in prehistoric times at Crystal River. Once your scene is colored, look at the chart above. What colors did you use? Would they have been available to the early people of Crystal River? Circle all of the plants in the chart that you could have used!



Draw in any plants
and animals you see
at the park!

CRYSTAL RIVER POTTERY

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The Native peoples of Crystal River decorated their pottery with images of plants and animals from different environmental zones. These animals were important to them in their everyday lives and were also significant in rituals and ceremonies. Sometimes the animals were drawn directly on the pot along with design of human hands. Below are some examples of pots and sherds (pottery fragments) that archaeologists have found!

DIRECTIONS: Below is a plain clay pot. Using the pictures of the pots and sherds as a guide, decorate the pot with a plant or animal that you have seen at the park or even one you have at home!



PEOPLE AND THE ENVIRONMENT

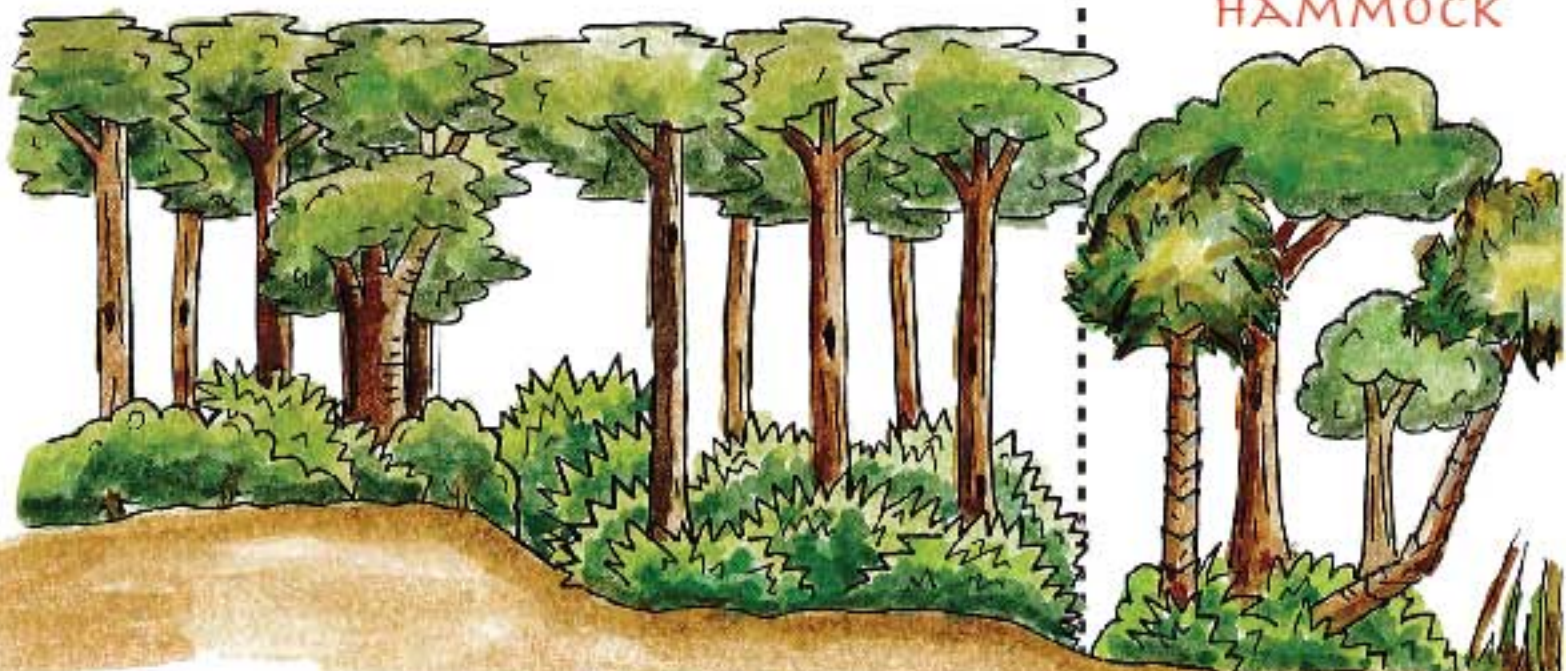
20

Not all parts of Florida have the same types of plants and animals. With changes in elevation or the amount of freshwater, different natural communities develop, each with their own unique character. Florida's Native peoples would have taken advantage of these differences by traveling to different areas throughout the year to collect resources they needed to survive. Below are natural communities common to Florida along with some important resources that each contains. As you walk through the Park answer these questions:

Name one natural community you see in the park. What special plants or animals can you identify?

PINE UPLAND/SCRUBBY FLATWOODS

COASTAL HYDRIC HAMMOCK



Oak (Acorn - Food)
Slash Pine (Tools, Fuel)
Saw Palmetto (Housing)

Longleaf Pine (Wood - Canoe)
(Resin - Glue)
Saw Palmetto (FronDS - Mats)
Wiregrass (Baskets)

Sabal Palm (Housing, Food)
Oak (Bark - Dyes)
Red Cedar (Wood -
Carving)
Beauty Berry (Ritual,
Medicine)

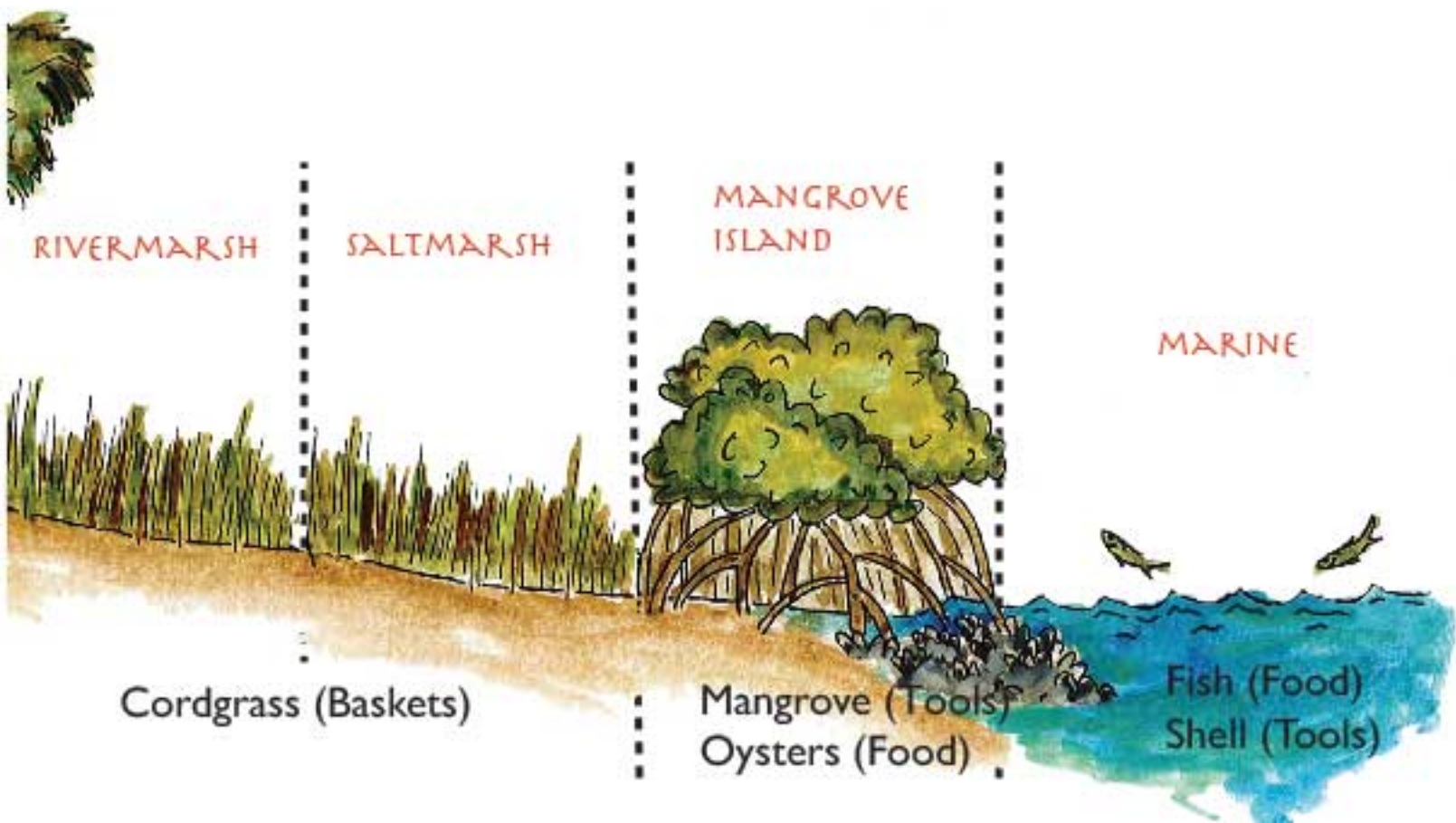
MAJOR NATURAL COMMUNITIES

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SCRUBBY FLATWOODS occur on the coastal uplands on sandy soils. You will see open pinelands with an understory of oaks and palmettos. In the past, wildfires burned the understory and maintained the scrubby flatwoods. Today, prescribed burns (fires that are scheduled and controlled by Park staff) mimic natural conditions.

COASTAL HYDRIC HAMMOCKS develop on coastal sand dunes. This zone is formed by a canopy of oak and pine trees with a dense understory of ferns, shrubs, and vines. The coastal hydric hammock is maintained without fire or human interference.

MANGROVE ISLANDS make up a large natural community around the Crystal River area. They create a buffer between salt water and land, and protect the coast from erosion. The three types of mangroves that grow in this zone are the red, black, and white mangrove. These mangroves provide important nurseries for wildlife and fish to grow and mature.



Imagine that you have traveled back in time 1,000 years to Prehistoric Crystal River. How would you survive? Prehistoric Native Americans couldn't go to the store to get the things they needed. They had to use the plants and other resources around them to fulfill their basic needs.

DIRECTIONS: Below are six things that you need to survive and six problems you might encounter if you lived at Crystal River in prehistoric times. Read about the Park's three environmental zones and how people used the resources around them on the previous pages and write down where you would look to find the resources you need.

NEED	PROBLEM	RESOURCE & NATURAL COMMUNITY
Food	You are hungry! What would make a good dinner? Where would you find it?	
Shelter	Night is falling, what would you need to make a chickee or hut?	
Transport	In order to cross a river you need to make a dugout canoe. Where would you find the right materials?	
Tools	You need to do some hunting, what would you need to make some arrows?	
Storage	You have a lot of stuff to carry, what could you use to make a container like a basket or pot?	
Ornament	You want to make a piece of jewelry for someone in your family, what could you make it from? What would you decorate it with?	

Most of the time archaeologists don't dig up artifacts, they try to preserve sites by leaving them alone or protecting them from destructive activities. Want to know how you can practice good stewardship like Tommy and become a real Junior Archaeologist? Then make sure to always follow these rules:

RULES FOR A JUNIOR ARCHAEOLOGIST

1. If you see an artifact on the ground, don't pick it up! See below for what you can do when you see an artifact.
2. While visiting archaeological sites, make sure you stay on paths and trails. These were placed within the park to protect the site, artifacts, and natural environment.
3. Let other people know how they can practice good stewardship. Sometimes people do the wrong thing because they don't understand they are hurting the archaeological site. If you are not comfortable telling the person directly, tell an adult or a park ranger and let them handle the situation.

IF YOU FIND AN ARTIFACT... Don't pick it up, but take a picture of it with something in the picture that can show how big the artifact is. Rulers are best, but things like quarters work too because they are always the same size. If you have a map, mark the artifact's location on it so the park rangers can find it later. Then you will be doing your part to be a good steward of the past!

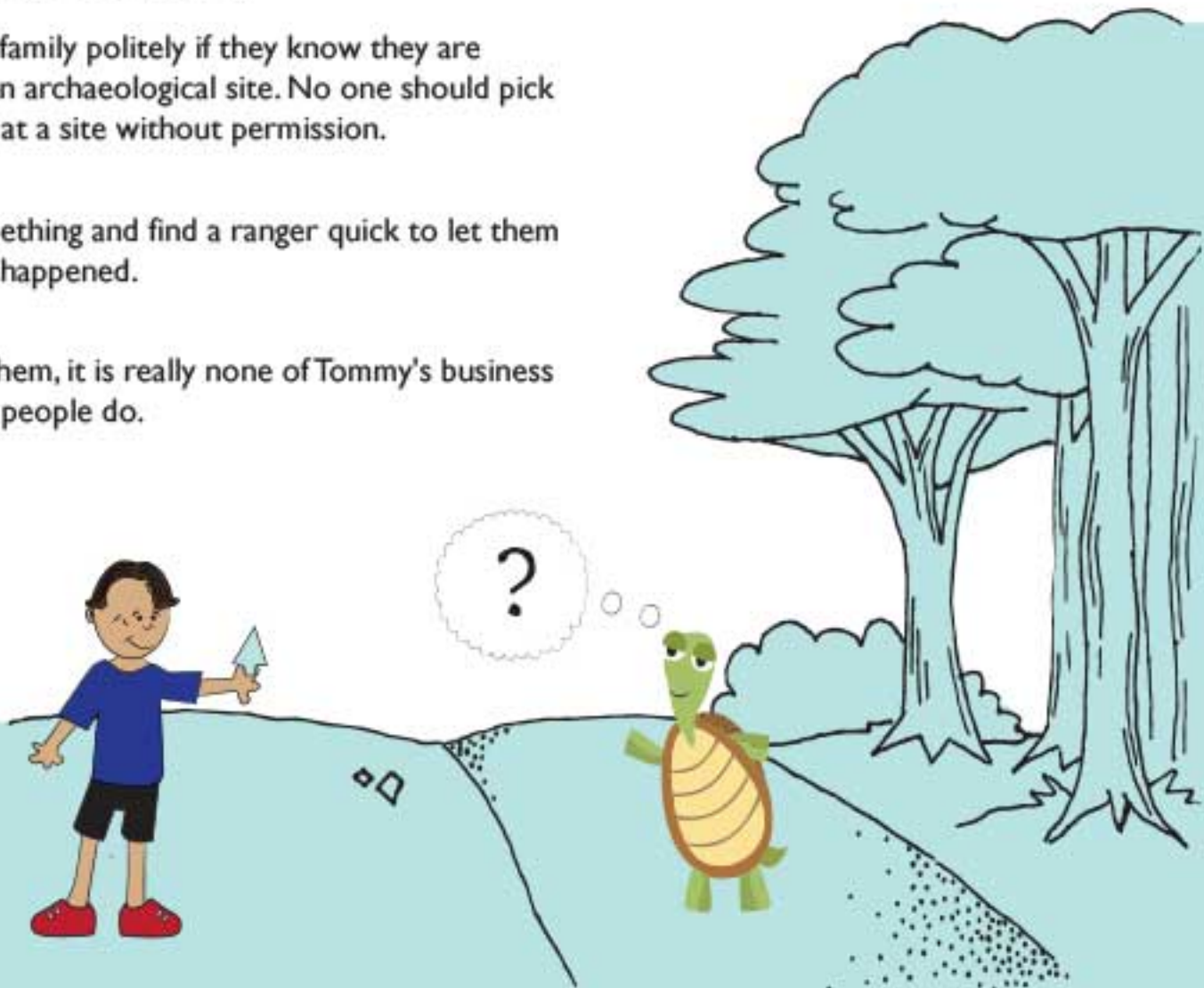


TOMMY'S DILEMMA

Tommy has just stopped to eat his lunch after walking around an archaeological site. He notices that near the picnic area there are a couple of artifacts on the ground. Tommy decides to take a picture of them after lunch. He can put a quarter in the picture too, which will help the rangers understand how big the artifacts are in comparison. He just pulled out his guide map to mark the artifacts' location for the rangers to be able to find them later, when a family walks by and sees the artifacts too. The child picks up one of the artifacts and is about to put it in his pocket.

WHAT SHOULD TOMMY DO?

1. Ask the family politely if they know they are disturbing an archaeological site. No one should pick up artifacts at a site without permission.
2. Say something and find a ranger quick to let them know what happened.
3. Ignore them, it is really none of Tommy's business what other people do.



Name of archaeological site: _____

Date of field visit: _____

Name of Junior Archaeologist: _____

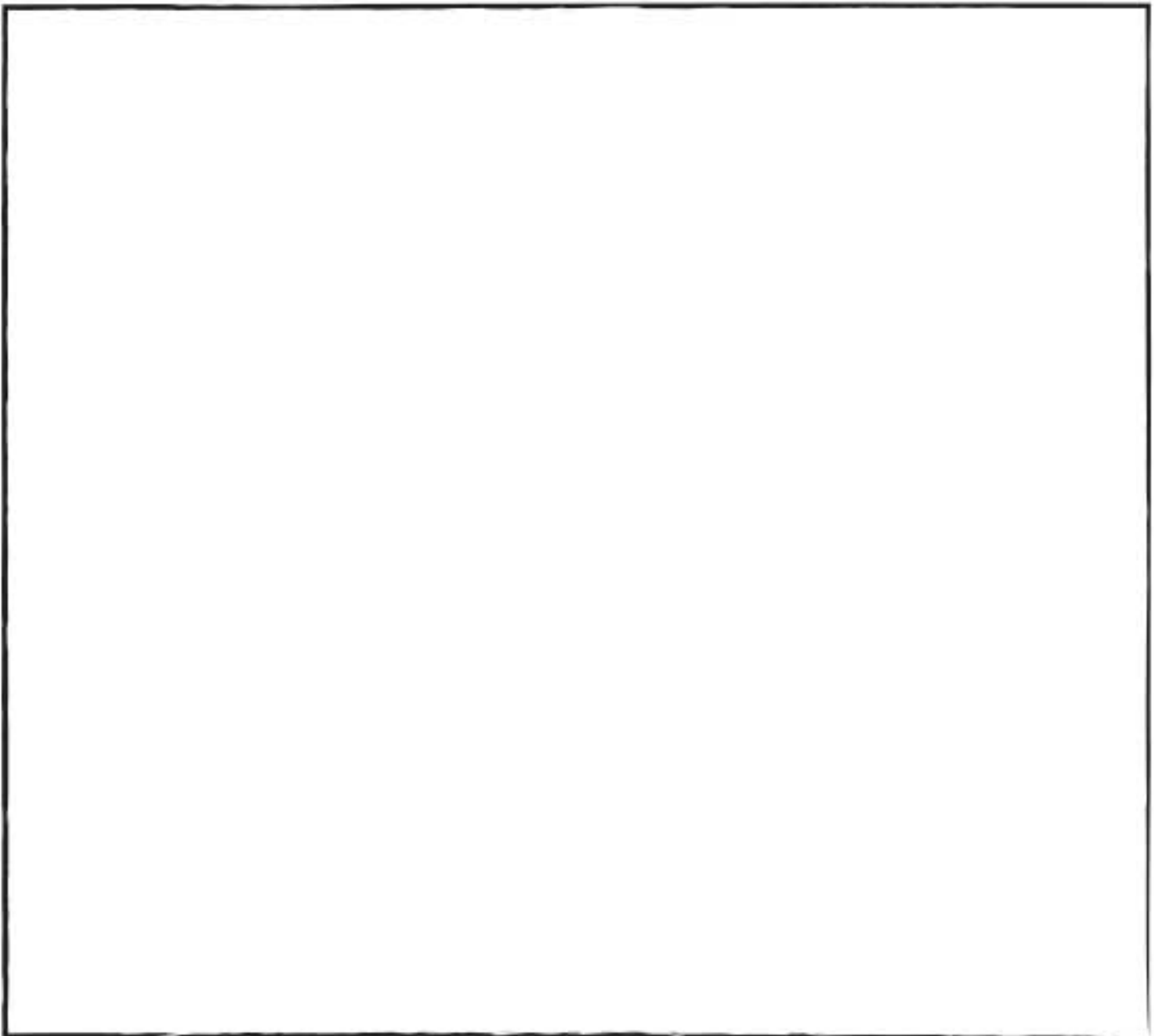
Describe the general area the site is located in. What environmental zones are near the site? Are there any signs or trails? What makes you think this is an archaeological site?

Read any signs you see along the trail or in the visitor center. What do they tell you about this site? How old is it? What cultural time periods are represented here? What other information did you find out?

Do you see any natural threats or human activities that could damage the site?

Why do you think people would have wanted to live in this area?

Make a sketch of the Crystal River Archaeological State Park site! Make sure to include everything you see around you including trees, plants, signs, or possible artifacts and label all the things that you can name!





Here are some other sites in the area you might be interested in visiting!



KEY:

-  CRYSTAL RIVER ARCHAEOLOGICAL STATE PARK
-  MAJOR CITY
-  ARCHAEOLOGICAL SITE/STATE PARK
-  MUSEUM

- Crystal River Preserve State Park
www.floridastateparks.org/crystalriverpreserve
- Florida Museum of Natural History
www.flmnh.ufl.edu/
- Olde Mill House Printing Museum
www.frenchtown.com/museums/OldMill/
- Dade Battlefield Historic State Park
www.floridastateparks.org/dadebattlefield/
- Fort Cooper State Park
www.floridastateparks.org/fortcooper/
- Weeki Wachee Springs State Park
www.floridastateparks.org/weekiwachee/
- Dudley Farm Historic State Park
www.floridastateparks.org/dudleyfarm/
- Old Courthouse Heritage Museum
www.cccourthouse.org/courthouse-museum.php
- Yulee Sugar Mill Ruins State Historic Site
www.floridastateparks.org/yuleesugarmill/



FOR MORE INFORMATION ON FPAN
EVENTS AND PROGRAMS GO TO:

www.flpublicarchaeology.org/cr central@flpublicarchaeology.org

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