

INTRODUCTION TO ARCHAEOLOGY



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Famous Shipwrecks (ppt) and Resource Information

Shipwrecks ppt.

1. *Titanic*
2. *Atocha*
3. *Bismarck*
4. *Mary Celeste*
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Teacher Preparation

Clean your cupboards and check the yard sales!

Collect old pottery, flower pots, and jewelry.

Paper bags, hammer, glue, cardboard, masking tape

Digital camera or disposable cameras

Index cards, rulers, sharpies, pencils, colored pencils, graph paper

Prepare one “broken pottery grid” for each student group. This can be 2 x 4, 3 x 3, etc. Masking tape over cardboard works fine. You can also set up a masking tape grid on a table; however, cardboard allows portability. For younger students, each block can be identified by a symbol or sticker. For older students, the grid can be labeled outside the edges with a conventional number/letter system.

Place pieces of pottery in a group and take digital pictures of them from several angles. Print a set (black and white is fine) for each student.



Place one piece of pottery or a flowerpot in a bag and smash it.

Try not to smash the pieces too fine. Then scatter all on the grid. When you have them scattered, smash another piece and distribute those pieces a few to each grid. *** For older students, add random pieces that don't go with either piece. Include enough on each grid for each member of the group.



Place index cards, rulers, sharpies, pencils, and graph paper by each grid.

Teacher Instructions

Lesson #1: Begin with the Powerpoint “**Intro to Archaeology**”. This can be shown with a projector or just a large-screen computer screen. Read the “What Kind of Tools...” information to the class.

Instruct students that archaeologists (as well as police at a crime scene) are very careful about disturbing anything. The position of artifacts at a scene can be very important. The level of artifacts and their relationship to each other can give clues as to what happened or the importance of someone.

Students should go over to the artifact grids BUT SHOULD NOT TOUCH ANYTHING. They should be divided into groups of three or four students per grid.

Students should take turns photographing the entire grid from different angles, making sure that the name shows. Each student should take a few pictures. Try to get all the pieces in the picture. Then take a picture of the group together.

**** TECHNO-HINT **** *If a digital camera is not available, use a disposable one and have the pictures placed on a CD. This can be done for under \$5, and they will be digitized for use on the computer.*

Next, have available the pictures of the original objects.

Each group should have a set of these and should brainstorm—without touching any pieces—and decide which pictures they think show their pieces. Groups should list reasons why they concluded this (such as “We see a handle, and this picture shows a handle,” etc.) **** This discussion may be oral in the lower grades.*

Lesson #2: Each student should prepare a grid on the graph paper. The teacher could either dictate the proportions for this scale (such as 2 units =1 inch.) or allow students to choose. Students should put the scale on the grid. *** For lower grades, simply make sure the paper is divided into a corresponding number of blocks.*

Now each piece should be looked at from an aerial view (straight down if possible) and pieces sketched in place along with obvious markings. This may be done with colored pencils or pencils. Do NOT use markers or crayons. Final grids should identify the group, the scale used, the pieces sketched in place, and the student's name. While students should try to be accurate, they should not obsess about that accuracy. Sketches should be roughly the right shape and proportion.

Measure at least five pieces for length and record that length on the sketches. ***** Pieces could also be weighed and recorded.*



Lesson #3: Show “**Archaeology—A Teaser (ppt.)**” Each group should sort the pieces of pottery. The end goal is to reassemble the piece. After the pieces are sorted as far as possible, begin assembly. (There should be some pieces that do NOT fit.) This works best if two people work on each piece. Masking tape works; tacky glue, duct tape, or a glue gun are also options.

During and after assembly, take more digital pictures.

Do the “Assembly of Artifact” sheet.

Archaeology



Lesson #4: (This lesson may take 2 or 3 days.)

Show the PowerPoint “**Great Archaeological Discoveries**”. Talk briefly about each find. Then read the article Who Are These People? orally and do the worksheet. Next, give one copy of the article to each group. Group members may consult each other, but each person needs to do an individual sheet. Review as a group. ***The 4th graders that I did this with had difficulty doing it and needed to do it as a class.*

Lesson #5:

Read a book or article on the *Titanic* and the finding of the *Titanic*. Discuss the reasons it took so long to find it and why it is difficult to get to it. Then take opinions on whether or not things should be salvaged from it.

Discuss the ways in which finding and examining shipwrecks is different from studying sites on land.

If possible, show a film clip of the *Titanic* discovery.

Lesson #6:

Review simple perimeter, area, and volume. Do the **Math Connections Worksheet(#1) and Archaeological Word Problems**. Students could also make math problems for each other.

Explain what *stratigraphy* is and how archaeologists use it to date things. Do the sheet called **Stratigraphy**. There are two versions: one for lower grades and one for upper grades.

Lesson #7:

Show the PowerPoint “**Archaeological Terms and Tools.**” Make flashcards of vocabulary and spelling terms on the worksheet. Quiz each other. (Add other words if useful.)

Lesson #8: ART

Review the different styles of rock art found throughout the world. Prepare beige or brownish ceramic tiles or pieces of slate by using a Brillo pad, sandpaper, or steel wool on it. Dust off with a damp cloth.

Use a pencil and sketch the outlines of large, prehistoric animals. Then use a black sharpie and go over your lines. [The cave artists would have used fat mixed with charcoal from their fires. It is possible to make your own “paints” with small amounts of shortening with charcoal and other ground colors. However, there is no guarantee that they will dry.]

The pictures should then have color added. Remember that the colors should be predominantly earth-tone. Large, thick sharpies work quite well. Be careful! The colors will not dry immediately and can end up on clothing. Regular markers will NOT work.

Tiles or pieces of slate can be purchased at lumber yards for less than \$1.00. Get one-foot square ones; they are easier to work with than the smaller ones. [Often these stores will have chipped or broken ones you can have for nothing.]

***Take pictures of the drawing stage, the coloring stage, and the assembled finished tiles.*

Lesson #9:

If possible, show a short forensics film clip or read a short story involving a mystery. (Most students have seen some of the crime shows that involve examining DNA and other evidence.) **Do “Diving Into Mystery”, Math Connection (#2)**

Lesson #10:

Give directions for a creative writing assignment. Also assign the “refrigerator assignment” as homework.

Lesson #11:

The Refrigerator Dig. Sketch or make a list of the things on your refrigerator and their placement there. Then discuss these as a class. What does this tell about your family and what is important to them?



Lesson #12: Show the “**Shipwrecks**” PowerPoint. Form groups and use modeling clay to make a shipwreck scene along with the artifacts you might find. If you use Fimo (a clay that bakes hard in the oven) and work small, you can make it permanent. Fimo could also be used to make coins like those found in the *Atocha*.



Optional: A nice ending for this unit is to use Moviemaker (which is included in Windows XP under Accessories) and make a movie of the activities. These play on Windows Media Player.

You can tape student comments about the unit, and when finished it makes a very nice presentation to send home to parents or to show at church or school nights. A sample of such a presentation introduces this unit.

<http://audacity.sourceforge.net/> allows you to record on your computer.

- [LAME MP3 encoder](#) - Allows Audacity to export MP3 files.

Other Lessons:

- 1. There are many other Biblical places that have been found by archaeologists or are being searched for. Research into these sites is fascinating. These include:**
 - a. Jericho**
 - b. Jerusalem**
 - c. Noah’s ark (the latest search is being done by satellite)**
 - d. Philistine cities**

- 2. There are thousands of digs around the world. Do research reports on some that have not been mentioned here, or find more pictures and details of the ones already mentioned.**

- 3. Do a “dig” in the corner of your playground. Go deep enough to see the changes in color of the soil. Sifting boxes can easily be made with scrap lumber and old screens or wire. In a pinch, plastic sand sifters can be used.**

- 4. Create a “dig” in a cardboard box or sandbox. For younger children, small plastic toys can be put in to be sifted or dug out. For older ones, put in beads, small wooden bowls, jewelry, etc., that you have found at yard sales.**

- 5. Find someone in the community who is an “archaeologist” (amateur or otherwise). Have him or her come as a guest.**

- 6. All areas have dig sites. Discover where yours are and investigate or make a field trip to a museum. Besides the obvious Native American sites and old forts, there are also old cemeteries and houses.**

- 7. Take pictures of old tombstones in an older cemetery. Show these and discuss what we can find out about the people of that time. (Besides the obvious names, birth and death dates, and ages, there are matrimonial data, armed services info, indications of close ties and wealth, and patterns such as influenza outbreaks. Family sizes and tragedies may also be there—note the number of infant or child mortalities.)**



8. **Sally Dillon's soft-cover activity book Crossroads in Time (Andrews University Press, Berrien Springs, Michigan, 1994) pp. 26 & 27) has an excellent activity using Caiaphas' House, which has been uncovered in Jerusalem. The activity shows the floors and walls and gives the Bible references for placing the High Priest, Peter, John, Annas, and even the rooster.**
9. **Do reports on famous archaeologists.**
10. **Many farm sites have old dumps. With care, it can be really fun and exciting to do some digging and find old bottles, etc.**
11. **Research more old shipwrecks. Besides a list of hundreds of wrecks, you can find maps of shipwrecks.**



ASSEMBLY OF ARTIFACTS **NAME:** _____

With your group, sort the artifacts into separate piles. Discuss what attributes you are using (such as color, design, shape...). Then to the best of your ability, assemble each one. You may each work on one, or you may work in pairs. You may use glue, masking tape, or a hot glue gun.

As each one is finished, place it in the center of the table. Then each member should choose a different artifact.

1. Describe this artifact in detail.

2. What do you think this object was used for?

3. Can you name it?

4. Does this object resemble anything in the original picture? If so, circle it and clip the picture to this page.

5. On the back of this sheet, sketch your object (without the crack marks). Put a phrase on it that says whether your sketch shows it larger than it is, smaller, or about the same size.



WHO ARE THESE PEOPLE?

Read the following account and answer the questions at the end.

Professor Phooleum of the Katium University announced an exciting new find today: Workers digging for a new fishing pool on the grounds unearthed an intact dwelling place of the ancient peoples of Er-ca.

“Never before have we found so many artifacts,” said the Professor. “Many of these things have never been seen before in their entirety.”

“We now have some new insights on their religion. For years many of us have thought that the Er-cans had no religion. In this new site, however, we found an intact altar. It was a rectangular shape, with a shelf below and made from some unknown wood. Sitting on it was a box-shaped god. The god has several round knobs and has a smooth, transparent side.

All seats and resting places around the room are placed so as to face the god. In addition, we found several “magic wands” which appear to match several of the knobs and are designed to point to the “god” in order to communicate with it.

From the well-worn condition of the seating it is obvious that the Er-cans must have spent hours each day in silent, reverent worship of their god. Most scholars agree that the name of this god was –ELEV----often shortened to –V.”

“We discovered that these people also had several cleansing places where they prepared for their god. These places had round or oval ceremonial bowls with removable lids which were evidently lifted before the cleansing ceremony. There are several pipes from which water flowed, marked “H” and “C”, abbreviations for the sexes.

“On shelves were found ground pastes and other substances. Along with these were bits of ground metal embedded in handles, used in daily ceremonies to scrape hair from body parts. At times these were used to cut the participants in order to appease the god. Other instruments have short hair-like bristles used to smear the aromatic substances on other body areas.

“Professor Gessit of this University believes that by magic, priests in other areas would flash pictures of demands for the offering of these products on to the smooth area of the god-statue and the mesmerized worshippers would rush to purchase these things and offer them to the god. Professor Gessit believes that the hours spent staring at the god-statue produced a trancelike state in which the believers could be manipulated into buying anything.”

“There was also found an elaborate food-preparing area. Ancient Er-cans began the day by consuming crushed, baked grains smeared with animal fat. Frequently, they ate the reproductive cells of a feathered animal. Often they drank a dark bitter liquid that contained a stimulant, perhaps to counteract the effects of their late night worship. Unlike



our custom of eating every part of a fresh kill, these people added heat in order to burn many things! They seem to have compensated for their lack of decent claws and teeth by using sharp pieces of metal. They also consumed much vegetable and fruit matter!”

“The house is designed with many air holes and light openings. These light openings are frequently decorated with strips of crushed, twisted, and dyed plant fibers. Evidently they could not see well at night, and appear to have been most active during the day!”

“The Er-cans must have had large olfactory openings as all the substances found appear quite aromatic. We do know that they had very short front appendages, little fur, and no tails.”

“In addition, they must have been into self-mutilation, as metal ornaments have been found that are designed to fit through holes punched into the body.”

“Other objects of plant fibers have been found. Some authorities insist that this is proof that the Er-cans did indeed cover their bodies in some fashion. Others say this cannot be so, based on some two-dimensional artwork in which the creatures represented appear to only be wearing metal ornaments, paint, and other dark substances. Of course, many of us do not believe that the artwork was meant to be actual representations of the Er-cans. Debates continue to rage as to whether the Er-cans were one tribe or a series of loosely organized tribes.”

“Professor Cattis insists that the Er-cans were merely pets or pack animals kept by our ancestors and were not civilized in the sense that we are. Indeed, in one of the MTV hieroglyphics, there appears a four-legged, tailed sketch that could indeed be our ancestor, the ancient “felidae”.”

All whiskers will be poised to further investigate this exciting find!

TOMORROW: Should you appear in only fur and a collar when meeting the king?

Who Are These People? Worksheet Name: _____

1. **Sketch five of the artifacts described. Label each one with what you think it could be.**

2. **What do you think these professors might look like? (sketch)**

3. **Write the internal clues that you based your sketch on.**



Math connection

Name: _____

Make a rough outline sketch of the artifact. (You may use your previous sketch.)

Take at least four measurements in centimeters or millimeters of your artifact and place them correctly on your sketch.



SPELLING AND VOCABULARY WORDS

Use index cards and work as a group. Prepare a set of flashcards for the group with the archaeology term on one side and its meaning on the other.

Take turns quizzing each other on the meaning AND the spelling.

Archaeology

Artifact

Artisan

Aerial

Cairn

Cave

Dig

Guffah

Potash

Pottery

Recesses

Remote sensing

Site

Submerged

Strata

Stratigraphy

Trench

Tell

Terria



ARCHEOLOGICAL WORD PROBLEMS..... NAME: _____

Read each word problem below and solve; show your work in the space.

<p>1. Professor Joe decided to use 5 meter by 5 meter squares at the dig site. What is the area of one square?</p>	<p>2. At another dig site, square areas were 5 feet by 5 feet and 3 feet deep. What is the volume of one area?</p>
<p>1. The professor measured an area that is 30 m by 22 meters. How many square meters is that?</p>	<p>2. Squares at an old longhouse site are 36 inches by 36 inches. What is the perimeter of one square in inches? What is the perimeter of one square in feet?</p>
<p>5. A trench was dug that was 7 feet long, 3 feet wide, and 2 feet deep. What is the volume of the trench?</p>	<p>6. The area of one dig side is 144 square meters. What is the length of one side?</p>
<p>6. If the squares at a site are 64 square inches in area, what are the dimensions of each side?</p>	<p>8. At another site the squares are 250 cm. per side. What is the perimeter of each side in centimeters? What is the perimeter in meters?</p>



Diving Into Mystery (Math Connection)

Teacher: read the following story and then distribute the sheets "Now It's Your Turn". Students do not need a copy of the story.

It wasn't a great day for swimming at the Parklawn Community Pool, unless you like swimming in lemonade.

I am Chuck McBuck, solver of crimes and mysteries. When I arrived at the pool, I talked to Mark Spritz, the owner of the pool. He said that when he got to the pool that morning, he noticed that something wasn't quite right.

"The giant ice cubes were the first thing I noticed," Mark said. Mark figured that someone had dumped lemonade mix into the pool and stirred it up.

"The good news," said Mark, "is that we might have set a record for the world's largest drink."

"Now all you need," I added, "is the world's largest straw."

Mark didn't laugh.

"Are there any suspects?" I asked. "Who works here in the morning?"

"There are five people who could've committed this crime," said Mark.

He told me about his other morning employees. Franken Mustard runs the snackbar. C.P. Arr is the lifeguard. Wade Weeder is the gardener. Doreen Dryer hands out the towels. And Cloris Chlorine cleans the pool.

I didn't say anything to Mark, but I decided that he was also a suspect. I spoke to the other employees. Each one said they didn't do it.

"Yuck! I already have to look at lemonade all day long," said Frank, the snack bar guy.

"I would never put ice cubes in the water," said C.P., the lifeguard. "It's too dangerous."

"Lemonade mix?" said Wade, the gardener. "I would only use fresh lemons, right from the tree."

"I only like iced tea," said Doreen.



“My job is to clean the pool,” said Cloris. “So why on Earth would I put lemonade mix in it?”

They all had good excuses. Just then I noticed a little boy standing outside the pool’s gate. I walked toward him. “When are they going to open the pool?” asked the boy.

“Not for a while,” I said. “Who are you?”

“Zak Backstroke,” the boy said. “I come early every morning. I wait here at the gate until they open.”

“Did you see someone dump lemonade mix into the pool this morning?” I asked.

“Yes, I did,” said Zak. “I couldn’t see the person’s face. But it was a man with blonde hair a blue shirt.”

“Thanks, Zak,” I said. Now I could figure out who did it! A man with blonde hair and a blue shirt—these were all “attributes.” Attributes describe something. All I had to do was look at the attributes of the suspects. Whoever matched up to Zak’s description made the giant lemonade!

Zak said it was a man. So it wasn’t C.P., Doreen, or Cloris. That left three suspects: Mark, Franken, and Wade.

Zak also said the man had blonde hair. Wade had brown hair. Two male suspects had blonde hair: Mark and Franken.

The other thing Zak said was that the man was wearing a blue shirt. Frank’s shirt was green. I looked at Mark, and noticed he was wearing a blue shirt! It must have been him!

“Mark, I figured out who did it,” I said to Mr. Spritz. “It was you.”

“Nice detective work, kid,” said Mark. “I give up.”

“Mark, you own the pool,” I said. “Why would you want to ruin it?”

“I’m tired of running a pool,” said Mark. “I’ve always dreamed of opening a nationwide chain of lemonade stands. To do that, you need an awful lot of lemonade.”

Thanks to attributes, Mark’s lemonade plans went sour. You could also say that his plans to ruin the community pool went down the drain.



NOW IT'S YOUR TURN..... **NAME:** _____

Look at the data of the pool employees and read their lists of attributes to answer the following questions.

ATTRIBUTES

Name	Mark Spritz	Franken Mustard	Wade Weeder	C.P. Arr	Doreen Dryer	Cloris Chlorine
Hair	Blonde	Blonde	Brown	Red	Blonde	Brown
Eyes	Green	Brown	Blue	Green	Blue	Brown
Shirt	Blue	Green	Green	White	Blue	White
Shorts	Tan	Blue	Tan	Red	Red	Blue
Height	6 ft, 1 in	5 ft, 8 in	6 ft.	6 ft 3 in	5 ft, 5 in	5 ft, 2 in

1. C. P. says that people should be at least 6 feet tall to go in the deep end of the pool. Which employee(s) could dive right in?

2. Frank is having a special at the snack bar. Anyone with the same color hair and eyes gets a free bag of potato chips. Which employee(s) would get the chips?

3. A voice comes out of the loudspeaker. "Would a person wearing something blue please report to the front desk." Which employee(s) would head to the desk?

4. A huge crowd of people with blue clothes reports to the front desk. The loudspeaker speaks again. "Anyone with brown eyes can go back to the pool." Which employee(s) would stay at the front desk?

5. The pool's "Employee of the Month" has a first name and last name that both start with the same letter.
 - a. Who might it be? _____
 - b. The first and last names also have the letter "D" in them. Now who's left?

 - c. The person is wearing red shorts today. Who is it? _____

Make a list of four attributes about yourself. Which attributes do you share with other people in your group or class?



Creative Writing

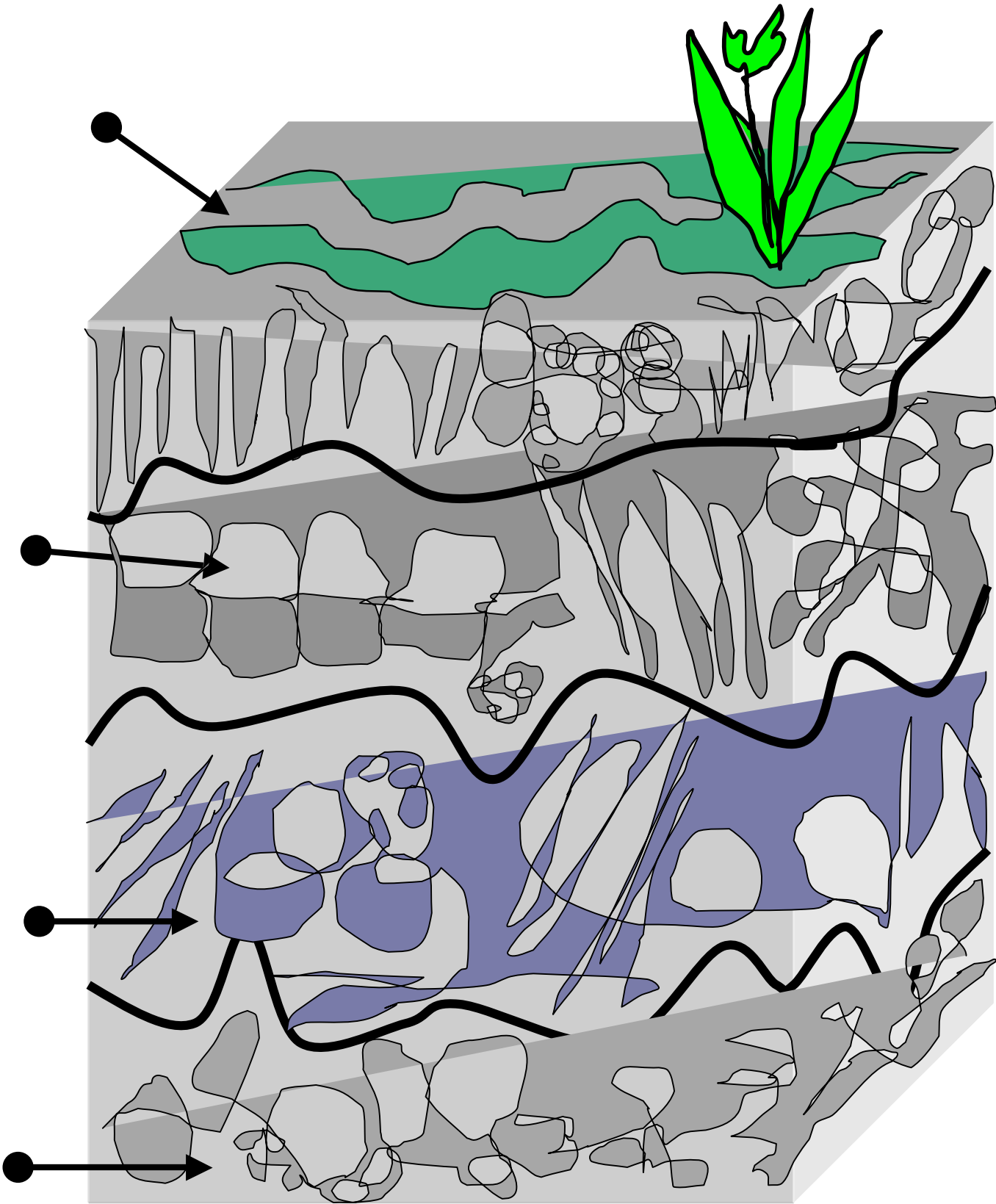
Name: _____

Use the directions that your teacher gives you.

Describe a toy that you have found at a dig site.
Most ancient cultures buried their dead with items they thought would be necessary in the afterlife. Pretend you are a member of a culture that believes this. What would you want buried with you?
You have been told to construct a “time capsule” of your family. The container is no bigger than a shoe box. What objects will you put in it and why?
Some ancient people are named after an artifact that is found at the site. One example is a group called the “Beaker People”. Draw a picture of an artifact, describe it, and name the people.
Invent a new machine that detects artifacts. Describe it and tell what it does and how it works.
On this site there is a cave that has three recesses in the wall. What possessions do you think these cave-dwellers kept in them?
The site has a lot of shells around. What might the people have used them for?

Describe this unit to someone else.





STRATIGRAPHY



STRATIGRAPHY

Archaeologists begin searching for clues about the past by examining the surface of a site and then proceeding to excavate the land. The site's surface is divided into squares or rectangles with grids. Then layer by layer, sometimes with toothbrushes and spoons, the earth is carefully removed. These layers are known as **strata**. As objects are found, their exact location is recorded. Today, GPS units (Global Positioning System Units) are often used.

The study of these remains in the layers or strata of the earth is called **stratigraphy**. Geologists read these layers to determine the age of a site and the manner in which stones, bones, and artifacts have been preserved. They can tell how long ago people lived at this site by counting the different strata. Things found here tell something about the people's habits, religion, and the foods they ate.

You have a picture of a sample cross-section of a site.

Dating: Our Western world uses a dating system based on the date of Jesus' birth. It is set up like the number system. So the dates AFTER the birth of Jesus count up: 1 AD, 2 AD, 300 AD, 540 AD, 2006 AD. The AD stands for two Roman words that mean "in the year of our Lord" or after the birth of Jesus.

The dates before the birth of Jesus use BC. This means before the birth of Jesus. But the dates before Jesus birth go in the opposite direction. 5 BC is not as far back as 3000 BC. If you were born in 1971 AD, when you are 20 the year will be 1991 AD. But if you were born in 1790 BC, you will be 20 in the year 1770 BC. (Of course, the people who lived before Jesus was born didn't know that! They used different dating systems.

Today, some scientists are using BCE for Before the Christian Era, and ACE for After the Christian Era.

Do the following on the STRATIGRAPHY graphic:

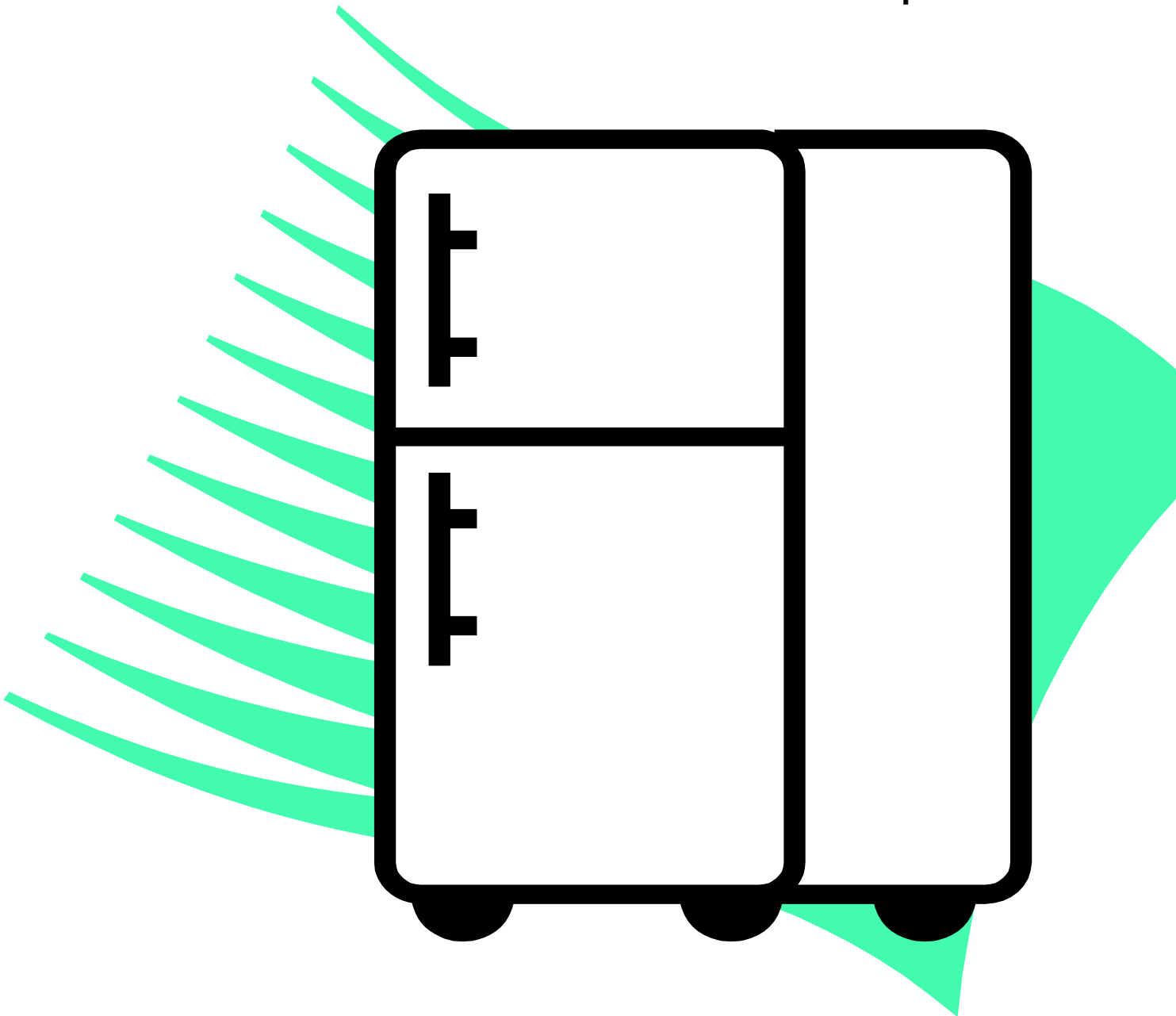
- 1. Put these dates in order: 1400 BC, 4000 BC, 100 AD, and Ground Level 2006 AD**
- 2. Draw at least 2 artifacts per level.**
- 3. Now make a chart and tell which artifacts are in each level. You may sketch them again if you wish.**



The Refrigerator Dig

Name: _____

Top



Sketch or list the things on your refrigerator.



What Kind of Tools Does an Archaeologist Use?

Archaeologists must be very careful as they dig up and sift through ancient cities and villages. Often sites are discovered and damaged by other construction. Even Otzi the Iceman was damaged when scientists tried to use a jackhammer to get him out of the ice, and the hammer slipped.

The site being examined is called a **dig**.

Many hand tools are used to carefully remove the soil. The soil is then sifted, so that even tiny beads are not lost. Some tools are the same ones that we use in our gardens and homes. Even dental tools are used.

Other tools are specialized, and known only by their Hebrew or Arabic names.

Picks and mattocks are used to loosen the soil. Then a smaller, curved hoe-like implement called a **terria** (tuh-REE-uh) or other shovel is used to place the dirt into tubs or buckets. Buckets are frequently made out of old tires. These are called **guffahs**. (GOOF-uhs).

Different sizes of sifting boxes are used to find beads, coins, seals, pieces of bone, pieces of pottery, teeth, clasps, and other small objects.

Archaeologists must do very careful digging once they get to artifacts. Then they will use hand trowels. A small hand pick, called a **patish** that is sharp on one end and square on the other may be used. Eventually, dental picks and different size brushes, and perhaps even water, are used to gently remove dirt and debris.

Many different techniques help to preserve the artifacts. Sometimes they are coated with a sealant or epoxy solution. Other times they must be kept frozen or very dry. Many artifacts are very fragile and begin to crumble or decay when exposed to the open air after thousands of years.



Powerpoint: *Archaeological Greatest Discoveries*

This Powerpoint can be used over several days, in depth, as a basis for further research, or as a swift overview. Further images of these sites can be rapidly found by using either Google or Yahoo image search.

The following sites are featured on the Powerpoint. Information on each site follows the list.

*****TECHNO-TIP**** Powerpoint slides can be printed in full size both in black and white and in color. These would make an interesting bulletin board.

1. Southern Africa Rock Art
2. Pyramids at Giza, Egypt
3. Tutankhamen—King Tut's Tomb and Treasure
4. Rosetta Stone
5. Ruins of Old Zimbabwe
6. Mammoth Bone Huts in Eastern Europe
7. Paleolithic Art in Europe
8. Otzi the Ice Man
9. Bronze Age Barrows
10. Knossos, King Minos, and the Minotaur
11. Pompeii and the Mt. Vesuvius Eruption
12. Bog Bodies and Cauldrons
13. Sutton Hoo (Anglo-Saxon)
14. Ur—Home of Abram
15. Babylon
16. Dead Sea Scrolls
17. Terracotta Army (China)
18. Titanic
19. Easter Island
20. Mayas, Incas, and Aztecs
21. Hunley
22. Anasazi (Cliff-Dwellers)
23. Troy and the Trojan Horse

An excellent book for an overview is:

100 Great Archaeological Discoveries, compilation @ Paul Bahn, editor:
Paul G. Bahn, published by Barnes & Noble, Inc., 1995.

Included are several websites for each discovery. There are hundreds more!
You should be able to click on the address and go to the site directly.



Archaeological Greatest Discoveries Powerpoint

1. Southern African Rock Art

Thousands of paintings and engravings are found in rock shelters, small painted stones, and on large boulders on the plateau areas of southern Africa. Much is found also in the Sahara.

These pictures are sometimes one color, but often many colors of earth shades. The engraving lines are scraped, pecked out, or incisions.

Most often, these pictures include wild animals such as giraffes and antelopes, and domestic animals such as sheep, cattle, and horses. Sometimes they include designs such as handprints, zigzags and dots.

Although we would say the people drawn look like stick figures, they are shown dancing, hunting, and fighting.

This rock art appears to be some of the oldest art work done by men. It dates back six or seven thousand years. Many archaeologists believe that the art was done by Bushmen (also called the San).

Today, those studying the art think that it may have had religious meaning. It might have been connected with the shamans, the religious leaders.

The animals are very recognizable.

http://www.lonker.net/art_african_1.htm

<http://www.ruf.rice.edu/~raar/RegionsSAarticle2.html>

2. Pyramids at Giza, Egypt

There aren't many people in the world that don't know about the pyramids in Egypt. For thousands of years, people have traveled to see them.

The pyramids were ordered built by the kings of the Fourth Dynasty of Egypt from about 2575 to 2465 BC. They are located near Cairo, Egypt and can be seen for many miles.

The pyramids were built as part of an elaborate collection of buildings that were to provide for a pharaoh after he died. It was actually a large tomb. A pharaoh's body would be prepared as a mummy. The pharaoh's mummy was put into the pyramid along with offerings, jewelry, furniture, large statues, food, boats, and so on, to help him in the next life. Beautiful paintings adorned the wall.

Then the tomb was sealed. There were secret passages into the pyramid and passages that came to a dead end. Often, the builders who knew these secret places were killed to make sure they didn't tell the secret.



Although most tombs have been robbed and the mummies are missing, much has survived to see. There is a real chance that there are many more sites that have still not been discovered.

Thanks to the writings and pictures preserved in these tombs, we now know a lot about ancient Egypt.

Most archaeologists believe that a lot of slave labor was used to haul huge stone blocks to the site. The slaves also made thousands of bricks to face the stone. Today, though, archaeologists think that the people of Egypt also were required to help certain times of the year. It is almost a certainty that the children of Israel helped on some of these pyramids. By the time that Joseph and Mary brought Jesus to Egypt, the pyramids were already 2,500 years old. Jesus easily could have seen the pyramids as a little boy.

It is very hard to tell from pictures just how huge these pyramids actually are. When you look at pictures, try to see if there are any people in them. That will give you one idea of how huge these things are.

There are many smaller pyramids in Egypt as well.

<http://www.ancientegypt.co.uk/pyramids/home.html>

<http://www.nationalgeographic.com/pyramids/>

3. Tutankhamen – Tomb and Treasure.

In 1907 Howard Carter, an English archaeologist and former Inspector of the Egyptian Antiquities Service, began a partnership with Lord Carnarvon, an English aristocrat and amateur Egyptologist. They began by excavating a series of tombs belonging to noblemen, but eventually Carter began to look for the lost tomb of Tutankhamen.

Tutankhamen was a boy-king who ruled for less than a decade and died before his 19th birthday.

Carter spent years in a fruitless search. Finally, Lord Carnarvon decided that this work should cease. Carter talked him into one more season. In 1922 workmen discovered a series of rock-cut steps that led down to a plastered doorway. Carter immediately sent for Lord Carnarvon to come. Three weeks later, the two of them walked through the doorway.

The doorway led to a corridor filled with rubble; at the end was another sealed doorway. Carter made an observation hole. What he saw through this hole still has people amazed and fascinated today.

What Carter saw was a room that was filled with golden objects: beds, chests, stools, two life-sized statues of the king.



These statues were flanking another doorway. On the other side of this doorway was another surprise: a burial chamber with a huge gilded shrine, which contained a group of coffins nested within each other.

There was so much in this tomb that the lid of the coffin could not be lifted until February 1925. Each sarcophagus was more magnificent than the last. The innermost one was 6 feet long and of solid gold 1 inch thick.

When this lid was lifted, they discovered that the mummy wore a magnificent mask that covered the head and shoulders of the royal body. This was of solid gold, with lapis-lazuli and blue glass. Today you would find few people who have not seen a picture of this most famous face.

The walls of the tomb and much of the furniture was decorated with scenes of everyday life as well as royal functions.

Lord Carnavon did not live to see the contents of the sarcophagus. In April 1923 he died in Cairo of pneumonia following an infected mosquito bite. The rumors began that he had died of the “mummy’s curse”. Carter spent the next ten years clearing and cataloguing the finds.

Today, there are still mysteries involving Tutankhamen. How did he die? There are indications that he could have been murdered. Was this meant to be his tomb, or was it originally for someone else? This would explain why the furniture was all in a jumble.

The contents of the tomb are so popular that part of the finds are sent around to many countries as a traveling exhibit.

Of course, most Egyptian archaeologists still hope to discover another tomb like Tutankhamen’s. Many tombs have been found but they have been empty. Tomb-robbers in the past have taken everything of value. Mummies have been found but none in such a magnificent series of coffins.

<http://homepage.powerup.com.au/~ancient/tut1.htm>

<http://www.nationalgeographic.com/egypt/>

4. Rosetta Stone

In the 1700s a French man named Napoleon Bonaparte set out to conquer the world. In 1798 he invaded Egypt. Although he was a conqueror, Napoleon had added scientists, artists, and archaeologists to his army of soldiers.

During the construction of a fort at a town called Rosetta on the main western branch of the Nile, a French officer noticed that workmen had uncovered a slab of black basalt covered with inscribed texts.



What was unusual about this slab was that it was tri-lingual. There were three different languages. Each of the three texts had the same meaning. And one of them-Greek-could be read! This led to the translation of the other two: Egyptian Hieroglyphic and the cursive Demotic.

Eventually the French were defeated by the British, and the stone, along with other artifacts, ended up in the British museum. It became known as the “Rosetta Stone”.

Up until this time, Egyptologists had looked at the characters of little people, animals, objects, and birds, and decided it was a symbolic language. No one could decipher it.

A young Frenchman, Jean Francois Champollion finally cracked the code. He knew that royal names were in oval rings called cartouches. These matched up with the Greek text. He went through them sign by sign, giving each an alphabetic value. This gave a list of signs that he could apply to other royal names and then work out other signs.

This led to towards the true translation of Egyptian texts. It was discovered that modern day Coptic is a descendent of the language.

It was through this one stone that we have learned to read ancient Egyptian.

<http://www.kidskonnnect.com/AncientEgypt/RosettaStone.html>

<http://www.crystalinks.com/rosetta.html>

5. Ruins of Old Zimbabwe

Great Zimbabwe is a Late Iron Age town in the southern African country of Zimbabwe.

Zimbabwe actually is a Shona word for the court or house of a king. These were traditionally a series of stone-walled enclosures built on a hill.

The first occupation of this area appears to have begun about 500 AD by people who did not build in stone. Between 1270 AD and 1450 AD Great Zimbabwe had become the capital of a large southern African Shona Empire, and was home to 18,000 people.

The kings accumulated much power, importance, and wealth by controlling the trade in gold and ivory with the East Coast. There was also a large local network of trade in copper, salt, soapstone, cattle, grain, tin, and iron bells.

A young German geologist, Carl Mauch, set off in May of 1871 to find what he phrased as the “most mysterious and important part of Africa.” He was inspired by stories of King Solomon and the Queen of Sheba in the Bible. He came back with stories that this area was the home of the Queen of Sheba.



Cecil John Rhodes, an English-born South African, was convinced that the ruins were a long-lost Phoenician city. People afterwards also were convinced that Africans could not have built the city. They used this as an argument that the area needs to be governed by outsiders. Much of the ruin was looted.

By now, Africans claim that the city is a reminder of past glories and a symbol of freedom from colonial rule. Most scholars agree. But there continue to be exotic interpretations.

Pottery, iron tools, copper wires, beads, copper wires, goldwork, carved wooden items covered with sheets of gold, and skeletons in rich burial sites have been found.

<http://www.worldheritagesite.org/sites/greatzimbabweruins.html>

<http://www.scholars.nus.edu.sg/post/zimbabwe/art/greatzim/gz1.html>

6. Mammoth-Bone Huts in Eastern Europe

There is evidence that men did not venture into the modern arctic zone until the end of the Ice Age about 7,000 or so years ago. Russian archaeologists working in NE Siberia at a latitude of 71 degrees north have found what is thought to be the northernmost Ice Age occupation in the world.

The lowered sea-levels of the glacial period would have allowed these people to spread across a land bridge between Asia and Alaska.

When the remains of several mammoth-bone houses were discovered, archaeologists at first failed to appreciate what the mass of large bones were.

The first such dwelling was called a dwelling in 1927. These arctic areas did not have trees. So mammoth bones were used. Several hundred bones and tusks are arranged in a rough circle. A hearth usually lies at the center, and remains of tools and other debris are found inside and out.

Even when dry, large mammoth bones can weigh hundreds of pounds. It must have taken a lot of effort to gather and assemble these bones. Most likely the huts were then covered with skin or maybe skins and mud.

Bones could have been gathered from hunts or from places where water might have washed the bones into large piles.

Some archaeologists believe that these huts could have been ceremonial or religious buildings.



http://www.howardbloom.net/the_neolithic.htm
<http://donsmaps.com/mammothcamp.html>

7. Paleolithic Cave Art

This artwork has been found as early as 1833 in Europe. Some of it is “portable”; in other words, it is art carved into things such as spearthrowers, on harpoons, or on small stones or pieces of bone that can be carried. It is some of the oldest art known, 7-8,000 years old.

The finding of this portable artwork inspired a famous Spanish collector of antiquities named Don Marcelino de Sautouola in 1878. He remembered a cave in Altamira in Spain where a few years earlier he had noticed some black signs on a wall.

He returned to the cave, where he began to dig in the cave floor, looking for “portable” art. He brought his little daughter Maria along. As she played on the floor in the cavern, she looked up. She spotted a great herd of bison painted on the ceiling!

Her father was at first incredulous. On closer examination, he decided that the figures seemed to be done with a fatty paste just like the smaller portable artwork he had seen. He decided that this was of the same age.

But when he tried to present his views he was labeled as a fraud by leading scientists. He died in 1888 never having proved that this was very old artwork.

Figures like this had also been noticed on the walls of caves in the 1860s and 1870s but nobody realized that they were as old as they were. It wasn't until an excavation in a cave in 1895 uncovered a gallery with figures engraved on its walls. Now it was clear that this artwork was ancient.

Once the authenticity of the cave art was proved, the number of findings skyrocketed. Some caves and rock shelters even held engravings, bas-relief sculpture, and work in clay. Today there are many caves in Southern France that have been discovered.

The most famous is the cave of Lascaux. By 1948 over 100,000 visitors were coming a year. Unfortunately, their breath and body heat along with the algae and pollen their feet carried in were damaging the art. By 1963 it was closed, and a superb facsimile, Lascaux, was build. This opened in 1983.

New finds are still being made at an average of one a year in France and Spain, and even Italy and the Russian Urals.



Recently the Grotte Cosquer was found by a diver near Marseille. Its entrance was originally on dry land but flooded through Ice-Age Melting.

At first archaeologists thought that only animals such as bison and horses were drawn. But new discoveries found rhinoceroses and large felines. "Cave art" has also been found in six sites outside in the open air. There was probably much more, but it did not survive the weathering of thousands of years.

The cartoon movie Ice Age shows the mammoth Manny looking at cave art deep inside an ice cavern.

<http://www.culture.gouv.fr/culture/arcnat/lascaux/en/>

8. Otzi the Iceman

In 1991 at an altitude of 10,600 feet some German hikers near the Similaun glacier in the Otztaler Alps of South Tyrol found a human body. At first it was thought to be the body of a lost hiker. It wasn't long until it was realized that the body must be older than that. In fact, it seems to be the oldest fully preserved human in the world.

With the dried-out, frozen body, were objects of grass and leather, flint and wood. The body was brought back. Most of the initial research has been done in Austria and Germany, but he was actually found 300 feet within the borders of Italy. The three countries have been squabbling over the ownership ever since.

Examination has shown him to be a dark-skinned male between 25 and 40 years old and a little over 5 feet tall. His teeth are very worn. His facial hair is shaved. He has tattoos and piercings. There is evidence that he survived serious disease and that he had arthritis and cracked ribs that healed.

In spite of our modern methods of investigation, it was quite a few years later when the scientists discovered that he had been shot with an arrow!

There are nearly 70 objects with the Iceman. Included are a quiver, bowstring and bow, feathers, and ax with a head of copper, a dagger with a sharp flint blade in a handle, a braided grass mat, and laced leggings. Scientists made replicas of his clothing and discovered it was as warm and functional as ours today.

Scientists agree that he lived about 3300 BC. which makes him about 5,300 years old. This puts him very near to the date of the flood.



Was he fleeing an enemy? Had he started the fight? Was he a shepherd? No one can solve this murder mystery! It really is a “cold case”.

<http://www.crystalinks.com/oetzi.html>

<http://www.pbs.org/wgbh/nova/icemummies/iceman.html>

9. Bronze Age Barrows

In Europe and the English Islands are found circular mounds of earth and chalk raised over a burial. Many are 4000 years old. Arranged around the body are found grave goods such as bronze and copper daggers, axes, staffs, and other bronze objects such as breastplates. Sometimes gold jewelry is found as well.

These barrows are often overlooked because they look like simple swellings of the ground or small gentle hills.

http://www.britainexpress.com/History/Bronze_Age.htm

<http://www.wightconservation.co.uk/barrows.html>

10. Knossos, King Minos, and the Minotaur

In 1894 Arthur Evans saw the excavations at Knossos and was convinced that there was more to the story of King Minos and the Minotaur than just a myth. Heinrich Schliemann had already discovered Troy. Now Evans managed to buy land at Knossos and began excavating.

Within a week of beginning, they came upon pottery that proved the society that made it was literate. It was not until 1952 when an 18 year old named Michael Ventris realized that texts written at Knossos was an early form of Greek.

Evans uncovered a huge palace that he called the “palace of Minos”. Because of this, the society became known as “Minoan”.

In the traditional stories, King Minos has a labyrinth in which he releases young men and women to be hunted down and do battle with a Minotaur. The minotaur was half bull and half man.

Beautiful frescos and figurines show people leaping over and riding huge bulls.

The palace itself is so huge and complex that it definitely does resemble a complicated labyrinth. There are large beautiful suites and

apartments, huge storage rooms, record rooms, rooms for craftsmen, and a number of shrines and religious areas.

<http://www.daedalus.gr/DAEI/THEME/Knossos.htm>

<http://www.bsa.gla.ac.uk/knossos/index.htm?vrtour>

11. Pompeii and the Mt. Vesuvius Eruption

There have been many volcanic eruptions in history, and Mount Vesuvius near Naples, Italy, has erupted many times.

In Jesus' day, there were two thriving Roman cities near this volcano: Pompeii and Herculaneum. In 1594 an irrigation ditch was dug across a field, and these ruins were discovered. But nobody knew the extent of them.

In the early eighteenth century, the Prince of Elbeuf had acquired a site where the workmen found ancient marble pieces. While he was digging, he happened upon an underground theater. Some of the finds, which included marble statues, were given away as gifts.

As the digging continued, it became apparent that a large city was buried beneath solidified volcanic ash and mud. And not too many of the inhabitants had escaped. The forms of human bodies were preserved in the ash.

An Italian archaeologist named Giuseppe Fiorelli found that a special mixture of plaster could be inserted into a space, and when it was set, the form of the human and even some animals could be preserved.

These towns are unlike other old towns, for they did not die out over centuries. They were not conquered or destroyed. They were covered in a matter of hours, preserving everything there.

Details of everyday life, including cosmetics, jewelry, brushes, and even loaves of bread, have been preserved. Some walls even have graffiti on them! Hundreds of small details are found in mosaics, frescos, and paintings.

As the excavations continue, more bodies have been found crowded near the seashore. Evidently these people tried to escape by sea. Most, however, perished almost instantly from the noxious gases and pyroclastic flows of ash and lava.

Today, Mt. Vesuvius is still an active volcano.

<http://www.harcourtschool.com/activity/pompeii/>

<http://www.thecolefamily.com/italy/pompeii/>



12. Bog Bodies and Cauldrons

In May 1950 two men were cutting peat in Denmark when they were horrified to see a human face protruding from the peat. At first it was thought to be a murder victim; the local police, though, soon sent for an archaeologist.

The man was lying in a fetal position and wearing a leather cap and belt. He looked peaceful. But he had a rope around his neck.

Because of the special qualities of peat bogs, bodies that lived and died over 2,000 years ago have been almost perfectly preserved. It is possible to see wrinkles and nails and hair. Unlike mummies, which preserved bones, bog bodies preserve the outside while the bones dissolve away.

The bodies themselves can tell us age and sex, indicate diseases, and what they have been eating. Since DNA tests have become more sophisticated, it is also possible to trace the person's descendant group.

Since this first find, hundreds of these "bog bodies" have been found. Most of them appear to have been either strangled or hit or stabbed to death. We do not know if they were enemies being punished, or were ritual sacrifices. This could have been the way that criminals were put to death in those days.

Magnificent silver and gold cauldrons have also been found near these bog bodies. Many have scenes of Celtic deities. These appear to have been placed there as offerings. They show a high level of artistry. Others show evidence of trade.

<http://www.archaeology.org/online/features/bog/>

<http://www.pbs.org/wgbh/nova/bog/>

13. Sutton Hoo

Many archeologists have called the Sutton Hoo boat burial the most spectacular Anglo-Saxon find ever made. It was discovered under a mound at Sutton Hoo near the Suffolk coast. When the mound was opened in 1939 archaeologists found unparalleled rich grave goods.

The vessel itself left only stains in the sand and rows of nails that had once held it together. But the ship had carried many beautiful artifacts of gold and silver, as well as coins and weapons. Many are in perfect condition and very intricate.

From the coins, it appears the burial took place between 620 and 650 AD. It included a sword decorated with gold and garnets, a large silver bowl, an intricate purse with gold coins, and a damaged helmet.



Iron fittings for a coffin were discovered in the middle of the area of the grave goods, but the coffin itself and any human remains have disappeared in the acid sand.

Most scholars think that the person buried here must have been rich and of high status, perhaps a member of the royal family.

This find changed the view of the early Anglo-Saxons from that of crude warriors to people who were rich in wealth and skilled in craftsmanship.

<http://www.suttonhoo.org/>

<http://www.britainexpress.com/History/sutton-hoo.htm>

14. Ur—The Home of Abram

For years it was customary for people to poo-oo the idea that Ur, the original home of the patriarch Abraham, could possibly have been much of a city. Furthermore, people said, the whole idea of nomads using camels as steeds and beasts of burden was added by later authors of the story.

But not all archaeologists were so quick to abandon the Bible. The British scholar Sir Leonard Woolley used what he found in the Bible to begin digging at a site in the Tigris-Euphrates river valley of Southern Mesopotamia.

What he found was spectacular.

The record showed occupation going back to at least 5500 BC. By 3500 BC the site was still occupied, and these people were building elaborate temples and filling them with exotic stone and metal objects. Then they began to develop writing.

By 2700 BC the kings and priests were leaving records behind.

Woolley's excavations were in Ur, from 1922 to 1934. He dug up an entire city quarter. What he dug up dated back to 1800 BC, the time of Abraham and Hammurabi, the Babylonian law-giver. He worked out the history of the ziggurat. And he found evidence of great construction by Ur-Nammu, the first king of the powerful Ur III dynasty. He traced the remodeling of the ziggurat right down to Babylon's King Nebchadnezzar.

But when Woolley went even deeper at Ur, he found the prehistoric antecedents of the Sumerians. Under a thick deposit of silt he found flimsy huts and pottery. And the layer of silt seemed to match the story of the Flood that was recorded in the Bible.

Oh, and the camels? Woolley found artwork and artifacts that showed the Bible writer was correct: camels were ridden and used as pack animals in Abraham's day.



Evidence in the city shows that there was an elaborate religious system which included sacrifice. It has become easier to see why God directed Abram to leave the city and its distractions and pagan worship.

http://ancientneareast.tripod.com/Ur_Muqayyar.html

<http://www.mesopotamia.co.uk/tombs/index.html>

15. Babylon

Babylon was a small town around 1900 BC. The famous law-giver Hammurabi made it the capital of his imperial kingdom and made Marduk (also called Bel) the national god. For over a thousand years Babylon was the political center of Babylonia. Finally it overthrew the Assyrians, and became an empire. Its king, Nebuchadnezzar (604-562 BC) completely remodeled the city. He went on to erect a massive palace, a large ziggurat, a temple to Marduk, and the Hanging Gardens.

Babylon, of course, is mentioned many times in the Bible. It gave its name to the tower of Babel, later enslaved the Jewish people, and of course is the site of Daniel and the story of the handwriting on the wall.

The Ishtar Gate has been reconstructed and is a beautiful structure decorated with dragons and bulls. The Babylonians made bricks that were molded and glazed blue, red, yellow, or white so that the figures stood out against a colored background.

Babylon is actually two cities, one inside the other, and was highly fortified with a massive triple wall with towers on it at regular intervals. A four-horse team pulling a chariot had room to turn around.

There were many shrines, and old Greek documents claim that the cult of Marduk used over two tons of imported frankincense and 20 tons of gold each year.

Much of the artwork found looks like the beasts described in the Book of Daniel in the Bible.

http://www.mnsu.edu/emuseum/archaeology/sites/middle_east/babylon.html

<http://www.crystalinks.com/babylonian.html>

16. Dead Sea Scrolls

Often critics of the Bible claim that we cannot know if we are reading the same Bible that Moses helped to write. Since the finding of the Dead Sea Scrolls, we CAN be sure that we are reading the same “Old Testament” that Jesus read.



The story of the discovery of the scrolls is interesting. In 1946 some Bedouin shepherd boys, bored with their sheep, were throwing stones into the cave openings on the cliff above them. Eventually they heard a breaking sound, and when they climbed up they found many pottery jars that held leather, parchment, and copper scrolls.

When reports of this find finally reached the authorities, a search was launched that uncovered more well-preserved scrolls.

Since that time, many of the scrolls have been examined. The process is slow and painstaking, as they are very fragile. But so far all that have been examined show that there have been virtually no changes in the text of the Bible since the time of Jesus. Just about all the books of the Old Testament are represented, and the book of Isaiah is nearly complete.

<http://www.centuryone.com/25dssfacts.html>

<http://www.gnosis.org/library/dss/dss.htm>

17. Terracotta Army (China)

China is a very old and well-populated country. So it has many thousands of years of wonderful jewelry, statues, and porcelain to show the world.

But in 1974 something called the Eighth Wonder of the World was discovered near the ancient capital of Xi'an by peasants digging a well.

This discovery is called the Terracotta Army. There are more than 7000 life-size figures in fired clay. Earlier emperors often killed subjects to accompany them after death. This emperor had made subjects instead. There are generals, officers, kneeling archers, and calvarymen.

The life-size statues are unique and spectacular. Each warrior's head is different and individual. There are 25 styles of beards. The hairstyles and earlobes are different. Many are tall and muscular. There are also chariots and horses.

The Terracotta Army has been such a popular tourist attraction that a new airport was built near the city. While this was being built, a new find was made in 1990. In it is another army, but this army is naked with no arms. It is thought that they were clothed at one time and the fabric disintegrated. The arms may have been wooden or made of precious metals. These figures are about a century younger and solid, not hollow like the older ones. These are only one-third life size.

http://www.anniebees.com/China/China_42.htm

http://www.bmy.com.cn/index_eng.htm



18. Titanic

The Titanic was the biggest ship the world had ever seen in 1912. Newspapers called it “The Wonder Ship.” The Titanic was not only huge, but was like a floating palace. It has a post office, a gym with a toy camel to ride, restaurants, and a swimming pool. It is as tall as an eleven-story building, and four city blocks long.

It was also considered to be the safest. Experts were sure it could not sink. The ship has two bottoms, one inside the other. And there are sixteen watertight compartments with steel doors that will come down to trap any water that comes in.

On April 10, 1912, the Titanic set sail for its first voyage from England to America. Its captain was very experienced.

For several days, the voyage was great. On April 14, 1912, the ship is off the coast of Canada. The sea is smooth, but the air is cold and there are icebergs in the water.

Near midnight the ship scraped an iceberg. Too many of the watertight compartments are ripped open. The ship began to sink. There are not enough lifeboats, and even though the ship calls for help, it doesn't come until it is too late. More than 2,200 people are on the boat. Only 705 are rescued.

Many years went by. The Titanic was many miles down in icy, cold, black water. It was too deep to be easily found, and no divers could go down in such deep water. Two world wars would go by before technology was developed that could reach it.

Many scientists thought the Titanic had been crushed by the weight of the water. Other treasure hunters kept on dreaming of finding this ship, for there had been many passengers on board who were rich and had brought lots of jewelry along.

Eventually, a scientist named Robert Ballard, took a special invention named Argo out to sea. Argo was an underwater robot. It could dive very deeply, and had lights and a video camera. It was made to skim along the ocean floor and send a video feed back to screens on the ship.

Robert Ballard did a lot of research, studying accounts of the survivors, and working with maps and photos. In the summer of 1985 Ballard sailed north to Newfoundland and sent Argo hunting. For days, all the robot saw was sand. Then, suddenly, there it was.



The Titanic was sitting on the ocean floor. It was broken in two. But it was amazingly preserved. Over the next days, Ballard saw more and more of the ship. Many things were scattered around on the sand.

Ballard did not believe that treasure hunters should remove anything from the ship. He wanted to keep it as it was to honor those who died there. He kept the place secret, and later went back with a submarine. He left a plate with a message behind for anyone who might find the Titanic asking that the great ship be left in peace.

There were still people alive who had sailed on the Titanic as children. The finding of the Titanic confirmed the reports of survivors that the ship had stood on its end before it went down, and had snapped in half.

Today, others have found the wreck. Do some research to find out if these people have honored Ballard's request to only look at the wreck, and not to remove anything.

<http://www.britannica.com/titanic/>
<http://www.encyclopedia-titanica.org/>
<http://www.gma.org/space1/titanic.html>

19. Easter Island

Easter Island is a tiny 66 square mile volcanic island in the South Pacific. Amazingly, it is permanently inhabited.

Easter Island is famous for its astonishing Stone Age culture that produced hundreds of enormous stone statues. These structures were already well developed by the seventh century AD.

The island is incredibly remote: 2328 miles from South America and 2250 miles from Pitcairn Island to the northwest. It is unlikely that someone set out to find it on purpose. Most likely the original settlers were from Polynesia and came by canoe. Once settled on this island, settlers would have been trapped there.

The earliest known contact with the island was in 1722 when a Dutch navigator discovered it on Easter Sunday—and named it Easter Island. Other explorers included Captain Cook.

Although archeologists investigated it in the late 1800s, real interest began in 1955 when the famous Norwegian Thor Heyerdahl brought in an expedition. They discovered that the island once was a rainforest. When people arrived, they also brought rats, chickens, pigs, and dogs, as well as bananas, potatoes, taro, and breadfruit.



Pigs and dogs and breadfruit did not survive long, though, and gradually the forest was cut down and native birds were wiped out by humans and rats.

Huge statues, some on platforms, some gigantic heads, were carved and transported. This seems to have gone on for thousands of years in peace. Eventually, it appears that the natives began a war among themselves. Religious changes came about. Massive reductions in the forest cover continued until finally trees became extinct on the island. This prevented the islanders from even building canoes for fishing. The rats ate the seeds and seedlings so that the trees could not regrow.

By 1722, when the first Europeans arrived, the population had been reduced from perhaps 20,000 to about 2,000 who lived in near starvation and poverty.

http://www.mysteriousplaces.com/Easter_Island/

<http://www.pbs.org/wgbh/nova/lostempires/easter/>

20. Mayas, Incas, and Aztecs

There were spectacular civilizations in MesoAmerica when Columbus and later the Spanish conquistadores arrived there. Unfortunately, rather than attempting to find out about the culture, the Spanish set out on a mission of conquering and plundering, rather than attempting to trade.

Rather rapidly, the natives were either killed by the Spanish or died from diseases brought in. Thousands more died of enslavement or starvation.

The Mayas, Incas, and Aztecs had advanced (although blood-thirsty) cultures with awesome scientific advances and construction techniques. But they were also located in tropical areas. Within years after their conquest, many of these cities were swallowed up and covered by dense vegetation. People could walk with ten feet of these things and never know they were there.

When it was discovered that these societies practiced human sacrifices, horrified priests ordered much of their writing destroyed. Thus, today, we are unable to read much of what survives. It was not until the 1950s that some of the Maya Hieroglyphics that had been sent back to Spain by Cortes in 1519 were able to be read.

Many archaeologists see striking similarities between these cultures and the Egyptian ones. These cultures have step pyramids and a form of hieroglyphics. (Although, most Maya pyramids are temples and not tombs as in Egypt.) Thor Heyerdahl, a famous Norwegian adventurer, built a reed boat using ancient techniques, and sailed it from Egypt to the new world. He proved that ancient



mariners could have made the journey and either colonized the ancient world or influenced it greatly thousands of years before.

Large amounts of gold and jade jewelry and other objects were taken by the Spanish and melted down into gold bars, but enough has survived to show us the riches of these people.

There is much still to be discovered. Sites are often difficult to reach and hard to work because of the vegetation and the ever-present disease-carrying mosquito. Much has been looted through the years, also.

One famous site is the Inca city Machu Picchu, discovered in 1911. At first thought to be the birthplace of the Inca civilization, it is now known to be an emperor's royal estate. It has breathtaking views, a beautiful temple, shrines, watercourses and baths, and living quarters.

<http://www.crystalinks.com/mayan.html>

<http://www.kidskonnect.com/AncientInca/AncientIncaHome.html>

<http://library.thinkquest.org/27981/>

21. Hunley

The Hunley would be considered a modern-day artifact.

It is the first submarine used in America. It was used during the Civil War (in the 1860s). It is not very large, or elaborate, and was powered by "foot-power"—men sat inside and pedaled to make it go!

It was sent out to "torpedo" and sink a ship. It accomplished its goal, but for some reason, sunk with the loss of the whole crew on the way back.

Recently located intact, it has been recovered and opened. Most of the skeletal remains have been identified through rings, tags, and so on. The men were given a military funeral, and descendants located.

The design of the Hunley is so simple compared to our modern day submarines that it would be possible for a teenager to reproduce it.

<http://home.att.net/~JVNautilus/Hunley.html>

22. Anasazi (Cliff-Dwellers)

Inhabitants of the Southwest United States began growing beans, corn, and squash about 2500 years ago. Later on, they added cotton and tobacco. They did not, however, rely on many domesticated animals, except for the dog and the turkey. (Horses were brought to the new world by the Spanish much, much later.)



These ancient people developed a method of farming called “dry-farming” and later elaborate irrigation techniques. They were very successful farmers.

They built with stone and adobe, and constructed large cities with multi-storied houses. Some are still being discovered today. Just recently, a rancher who had protected one of these villages all his life, revealed it to the public. He had kept it secret to protect it from looters and vandals.

About 1250 AD, though, the climate included a long running drought. Even their advanced techniques did not allow the Anasazi to grow enough food for the people, and the cities were abandoned.

The dryness of the area has preserved it almost perfectly. Sometimes it seems as if the people have just stepped out a few minutes ago.

<http://media.graniteschools.org/Curriculum/anasazi/>
<http://www.americanwest.com/pages/anasazi.htm>

23. Troy (and the Trojan Horse)

In the 19th century most scholars believed that the stories written by Homer in the *Illiad and the Odyssey* were just poetry. These stories are still known to us today: stories of Jason and the Golden Fleece, the Cyclops, Agamemnon, and the Trojan Horse.

In the famous story, the Greeks had been trying unsuccessfully to conquer the city of Troy for many years. But Troy was fortified with a huge wall, and its gates remained shut against intruders. At last the Greeks left a huge wooden horse outside the city. Then they made a big display of sailing away.

The Trojans, though suspicious, at last went out and brought what they thought was a gift signifying defeat into the city.

That night, Greek warriors stealthily let themselves out of the horse, and opened the gates for the rest of the returning Greek army. Troy was destroyed and torched.

Even today, we know the saying “Beware of Greeks bearing gifts”, and know to be suspicious of a “Trojan horse” gift from an enemy. In fact, computer viruses that come in looking like harmless programs and then destroy your computer are called “Trojans”.

We have not, of course, found the real Trojan horse.

But for many years people thought that there was no real Troy.

Heinrich Schliemann was a German businessman who became an archaeologist. He was convinced that the stories by Homer had real history behind them.

Schliemann took 150 workmen to a place in Turkey and began to dig vast trenches through a mound. He found four successive cities, the second one



destroyed by fire. He decided that this was Troy, the city of Priam. In 1873 he glimpsed gold in one of the trenches. Schiemann dismissed his workmen for a lunch break, and he and his Greek wife excavated a hoard of gold, silver, and bronze objects. He promptly smuggled them out of Turkey.

This find became known as "Priam's Treasure", and disappeared from Germany at the end of WWII. Recently it has resurfaced in Moscow.

<http://www.iit.edu/~agunsal/truva/truva/truva.html>

<http://www.unmuseum.org/troy.htm>

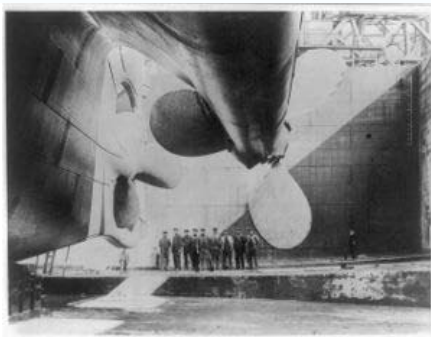
<http://home.att.net/~a.a.major/troy.htm>

Famous Shipwrecks (ppt) and Resource Information

Shipwrecks ppt. Powerpoint on marine archaeology and a few shipwrecks

1. Titanic

The Titanic was an ocean liner that was intended to be the largest, most luxurious ship ever built. It offered an onboard swimming pool, a gym, a library and a Paris Café. Even third class rooms had wood paneling and expensive decorations. It was also meant to be safe, and boasts were made that it could never sink. It had watertight bulk heads that could close by means of a switch on the bridge.



☞ *Titanic rudder and propellers*



☞ *Titanic's grand staircase.*

On the Titanic's maiden voyage, passengers considered the most prominent people in the world, were on board in first class. These included millionaire John Jacob Astor IV; industrialist Benjamin Guggenheim; Macy's department store owner Isidor Straus and his wife Ida; Denver millionaire Margaret "Molly" Brown and United States presidential aide Archibald Butt.



On the night of April 14-15, 1912, the *Titanic* struck an iceberg and sank very quickly, with great loss of life. The United States senate investigation reported that 1,522 people perished in the accident, while the British investigation has the number at 1,490. Regardless, the

disaster ranks as one of the worst peacetime maritime disasters in history and by far the most famous.

The *Titanic's* design used some of the most advanced technology available at the time and the ship was popularly believed to be "unsinkable." It was a great shock that, despite the advanced technology and experienced crew, the *Titanic* sank with a great loss of life. The media frenzy about the *Titanic's* famous victims, the legends about what happened on board the ship, the resulting changes to maritime law, and the discovery of the wreck in 1985 by a team led by Robert Ballard and Jean Louis Michel have made the *Titanic* persistently famous in the years since.

2. Atocha

Back in the days of Spanish treasure ships and English pirates, a fleet of 28 ships loaded with treasure set sail for the Old World. Due to numerous delays, the 1622 *Tierra Firme* Fleet finally left Havana harbor for Spain on September 4, more than a month behind schedule. Heading north to catch the eastbound Gulf Stream current, the convoy unwittingly sailed into the season's first major hurricane.

By Tuesday, September 6, running before the unrelenting pounding of gale-force winds, five ships of the fleet were wrecked on the Florida Keys, including the *Atocha*.

Three seamen and two black slaves were the only survivors of the ill-fated *Atocha*. The remaining ships of the *Tierra Firme* Fleet returned to Havana to report the terrible loss. Quickly a decision was made not to send the remaining ships to Spain that year, but instead to concentrate in salvaging as much as possible from the two sunken galleons. Much of the cargo from the *Santa Margarita* was brought up during an intensive recovery operation lasting more than four years. Hundreds of silver ingots, eight bronze cannons, 64,000 silver coins, and other valuable items were recovered from the wreck site, but try as they might, the Spanish salvors could not locate the remains of the *Atocha*.

It took 16 years of searching, loss of life, and a lot of money before Mel Fisher found the wreck in 1985. It made him a millionaire, but first he had to fight the state of Florida because it claimed the treasure.



3. Bismarck

The Bismarck was a very large warship, the pride of Germany, and designed to raid shipping lanes as well as wage war on its enemies. In 1941, Winston Churchill of England ordered it sunk, and three days later British warships were able to track it down and attack it.

At least 3600 men lost their lives in the great sea battle. The Bismarck was sunk. Germans claimed that it sunk not from the shooting, but because they deliberately scuttled it to keep it from being captured.

The wreck was found by Robert Ballard in June of 1989, the same man who found Titanic. American teams who investigated feel that the German story is correct.

4. Mary Celeste

The Mary Celeste was a small ship that set sail in 1872 with a crew that included the captain/owner's wife and two year old child and a cargo of alcohol. It was spotted a few weeks later under full sail with no one on board. The last entry in the log showed no sign of trouble. Only the lifeboat was missing.

The Mary Celeste has remained a mystery to this day. The most plausible explanation is that something went wrong with the cargo, fumes were emitted, and the group decided to enter the lifeboat temporarily and then were unable to get back to the ship.

The ship was sold very cheaply. It eventually wrecked off the shores of Haiti. The remains were found by Clive Cussler.

5. Edmund Fitzgerald

The Edmund Fitzgerald is one of the many thousands of wrecks that dot the Great Lakes. This is a recent wreck, having sunk only in 1975. All hands were lost. No one is sure what happened, but the best theories think they were hit by a rogue wave.

Some of the ship has been salvaged, including its bell, and it became the subject of a popular song by Gordon Lightfoot.



Bibliography and Resources

The Titanic: Lost....and Found.

By Judy Donnelly, Illustrated by Keith Kohler, 1987, Random House, NY.
This book is excellent and can be read in one sitting. It is on the 2-4th level but is of high interest to any grade.

An excellent book for an overview is:

100 Great Archaeological Discoveries, compilation @ Paul Bahn, editor:
Paul G. Bahn, published by Barnes & Noble, Inc., 1995

Crossroads In Time (Archaeology Activity Book) by Sally Dillon, Illustrated by Glen Milam, @ 1994 by Andrews University Press, Berrien Springs, Michigan.

The Detective Zack Series

<http://school.discovery.com/ontv/videoclips/forensics1.html>

Forensic Detectives: Archaeological Detectives

Even the fourth grade students related well to this forensic story of a skeleton that was found and its mystery solved. This site allows you to see a small clip.

<http://museums.ncl.ac.uk/Reticulum/>

Interested in the history of the Romans in Great Britain? This is a wonderful site for teachers and students. It includes pdf and word files that can be downloaded. Permission is granted for use and modification.

<http://www.nexfind.com/lessons/table%20of%20contents.htm>

http://www.kamalii.k12.hi.us/Kukuipuka/Archeology_Tools.html



Maritime History

A List From “Teaching With Historical Places”

Main site: <http://www.cr.nps.gov/nr/twhp/index.htm>

Teaching With Historical Places. Super great site that has fully developed lesson plans and resources. By the National Park Service.

[The Battle of Midway: Turning the Tide in the Pacific \(90\)](#)

Discover the important role these tiny Pacific islands played in World War II. **(National Historic Landmark)**

[Decatur House: A Home of the Rich and Powerful \(19\)](#)

Inspect Commodore Stephen Decatur's home near the White House, a gathering place for the politically ambitious, and learn why the naval hero felt compelled to fight a fateful duel. **(National Historic Landmark)**

[Fort Hancock: A Bastion of America's Eastern Seaboard \(37\)](#)

Examine how changing military technology and U.S. budget debates influenced the development of Fort Hancock and the U.S. coastal defense system. **(National Park/National Historic Landmark)**

[Fort Morgan and the Battle of Mobile Bay \(73\)](#)

Follow Admiral Farragut's attack on Fort Morgan and Mobile Bay, and consider the human reaction to technologies such as ironclads and underwater mines. **(National Historic Landmark)**

[Forts of Old San Juan: Guardians of the Caribbean \(60\)](#)

Discover how Spanish fortifications on the island of Puerto Rico helped protect Spain's expanding interests in the New World. **(National Park/National Historic Landmark/UNESCO World Heritage Site)**

[La versión en español Los Castillos del Viejo San Juan: Guardianes del Caribe](#)

[Liberty Ships and Victory Ships, America's Lifeline in War \(116\)](#)

Learn how the United States mobilized a massive construction effort to build a large merchant fleet to serve in war and peace. **(The SS Red Oak Victory is part of a National Park. The SS Jeremiah O'Brien and the SS Lane Victory are National Historic Landmarks.)**

[Life on an Island: Early Settlers Off the Rock-Bound Coast of Maine \(16\)](#)

Discover how early settlers survived on Maine's coastal islands despite harsh living conditions. **(National Park)**

[Little Kinnakeet Lifesaving Station: Home to Unsung Heroes \(57\)](#)

Learn about the United States Lifesaving Service daring rescues to save imperiled lives from the "Graveyard of the Atlantic." **(National Park)**

[The Ohio and Erie Canal: Catalyst of Economic Development for Ohio \(41\)](#)

Assess the importance of America's early canal system and its economic and social effects. **(National Park)**

[The Penniman House: A Whaling Story \(112\)](#)

Meet Captain Edward Penniman, and learn about 19th-century whaling in southeastern Massachusetts and how the whaling industry impacted Penniman's family and life. **(National Park)**

[Remembering Pearl Harbor: The USS Arizona Memorial \(18\)](#)

Trace the course of the Japanese surprise attack on the U.S. Pacific Fleet at Pearl Harbor, and consider the significance of the sunken USS *Arizona* as a war memorial. **(National Park/National Historic Landmark)**



[The Spanish Treasure Fleets of 1715 and 1733: Disasters Strike at Sea \(129\)](#)

Learn how Spain established a New World empire based on collecting precious metals and goods from the Americas.

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Information about archeology and mithology in Egypt. [More](#)
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Diving into History is a comprehensive, interactive, educational Website about nautical archeology. We describe how nautical archeologists locate, excavate, and preserve shipwrecks and sunken cities. We also give brief but interesting backgrounds and histories of the ships and sunken cities we have highlighted. Our site is interactive with... [More](#)
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