


5-16-2009

An Art Classroom Curriculum Integrating Art History and ELA

Lisa M. Catalano
Skidmore College

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**An Art Classroom Curriculum Integrating Art History
and ELA**

by

Lisa M. Catalano

FINAL PROJECT SUBMITTED IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN LIBERAL STUDIES

SKIDMORE COLLEGE
March 2009

Readers: Joyce Rubin, Michelle C. Stefanik

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I. Introduction

Nora, having finished drinking her milk, tosses her sippy-cup to the side. At first she doesn't see the casual stream of milk that has been strewn across the black wool carpet, but as you can imagine it does not escape her for long. Imagine the look on her face as she discovers that she can control the amount and pattern of the milk on the floor. She begins to tap the tip of the cup on the carpet watching the white spots this creates. As pools of white are formed she takes her fingers and drags them across the rug creating streaks of white.

I imagine that the first artists who were creating drawings and paintings on stone surfaces had the same sense of wonder and delight that Nora had in creating her "milk drawing". The magic of art is that it exists in all of us and has since the beginning of time. By the time we are grown adults the world has told us that we are not artists but doctors or mathematicians or teachers, but I would argue that we are all in fact still artists and that art is essential to everything we do. Many scholars say art is what makes us human.¹

In this age, it would seem that it is hard to recognize the importance of art education. When school budgets are cut, special subjects- including art programs- are among the first to see the effects. If, however, art is essential to our being human, we will always have art, and we will always have artists- even when school programs are cut. The struggle is to find an argument for art training that indicates a greater good for all society.

For years, educators have fought for art education in public schools. Art education in the American public school was first introduced in the early 19th century by William Bentley Fowle. The purpose was to train the eye, hand, and perceptual faculties. Often the goal of art education was to train young people to become artisans so that this country could produce products that competed with those from other countries. Art education was sustained by politics and economy.

Part of the reason art education is so hard to support today is because we no longer see a need to create crafts. If we can compete with the technological accomplishments of countries like China and Japan then our economy will be strong.² We fight for our children to become mathematicians, engineers and scientists. Our society seeks to produce ideas over products.

In his book *Art and Cognition*, Arthur Efland states, "All subjects, including the arts, are now seen as having their cognitive and affective components. Yet art often is taught as though it were only about feelings and emotions and not ideas."³ Because public education gets its funding from government sources, it will always be difficult to argue the importance of art education solely based on the value art has for our emotional being. Educators need to look at other ways that art educates and establish a new motivation for the future.

¹ One example of such a scholar is Douglas Fogle, a curator at the Carnegie Museums states, "The basic elements of art-making are human... They're actually what makes us human—our ability to make a mark that has some intelligibility." www.carnegiemuseums.org/cmago/feature.php?id=82. Internet. Accessed 2 March 2009.

² Actually, in his book *Art and Cognition*, Arthur Efland talks about how a school budget cut in the 1970s in California has led to corporations today looking overseas for workers trained in the arts with the entertainment media being among California's chief exports to foreign markets. In his words, "the current situation has grave economic implications."

Efland, Arthur. *Art and Cognition*. (New York: Teachers College, Columbia University, 2002), 8.

³ Efland, 10.

In order to develop a new focus for art education it is important to look at the history of art education.⁴ This introduction will examine where art education has concentrated its efforts in the past, specifically looking at examples that will serve as a model for the attached curriculum.

Art education began in the private domain with the artist as teacher and students working as apprentices. Art education in a public sense did not develop until the 19th century. Although there was no formal public education, there was a call to educate youth in a variety of subjects, specifically in the 18th century when people began to see this as a priority. As a result, numerous educational developments were designed to enhance learning at home.

One such development was Johann Siegmund Stoy's *Picture Academy for the Young*. This book was published in four installments, with the final installment arriving in 1784. Each piece consisted of three sections. The first two sections were explanatory texts to be used by an adult or teacher in helping a child understand the last book, which was a group of 52 copperplate engravings.

It is through the copperplate engravings that Stoy hoped to educate children. Each copperplate contained nine scenes. Scenes were divided into nine subjects including, Biblical text, ordinary life, secular history, excerpts from Johann Basedow's book for children, kingdom of nature, Aesop's Fables, mythology, and moral instruction. Each copperplate would have a scene from each subject matter.

The section of copperplate engravings is unusual because it was not meant to be viewed in the same way as a modern day book. Anke Te Heesen calls Stoy's *Picture Academy for the Young*, "the world in a box," as suggested by her book of the same title. This is because of the suggested treatment of the copperplate engravings. They were to be cut up into their nine subject areas and stored in a compartmentalized box.⁵

Stoy suggests several ways of using this box of images. Younger children were to view images first on their own. As the student became familiar with the images, a teacher or parent could tell them information about the picture using accompanying books. "[The teacher] takes the book into his own care so that the *élève* should not skim through the book too hastily and lose curiosity."⁶ This type of student led, scaffolded learning was ideal, because the child was educated through experience.

The idea of being educated through experience originates in the theories of John Locke. In his *Essays Concerning Human Understanding*, written in 1690, he states:

"Let us then suppose the mind to be, as we say, white paper, void of all characters, without any ideas: How comes it to be furnished? Whence comes it by that vast store which the busy and boundless fancy of man has painted on it with an almost endless

⁴ When teaching students I often ask them, "Why is it important for us to study history?" Here too it is important to remember that knowing our history can better prepare us to deal with the future.

⁵ Heesen, Anke Te. *The World in a Box: The Story of an Eighteenth-Century Picture Encyclopedia*. (Chicago: University of Chicago Press, 2002).

⁶ Heesen, 19.

variety? Whence has it all the materials of reason and knowledge? To this I answer, in one word, from EXPERIENCE. In that all our knowledge is founded; and from that it ultimately derives itself. Our observation employed either, about external sensible objects, or about the internal operations of our minds perceived and reflected on by ourselves, is that which supplies our understandings with all the materials of thinking. These two are the fountains of knowledge, from whence all the ideas we have, or can naturally have, do spring.”⁷

The idea of the mind being a blank slate, or *tabula rasa*, encourages the educator to supply students with a variety of experiences and to promote student led, hands-on learning.

William Morris was a late 19th- century English artist. As industrialization spread through the English countryside Morris saw an appalling trend. Items that were once produced as crafts were now being mass produced. The objects were not only losing aesthetic qualities, but were also leaving the artist/craftsperson out of business because they could not produce enough goods fast enough. Morris lamented at the loss of the field of design and sought to reinstate it in his own workshop.

In Morris’ workshop he taught his students that art should have “a use and a meaning.”⁸ He stressed the role the artist had in creating history. Just as we view the everyday objects of long ago, so our future generations will study our material culture. We must be responsible in making art, not just creating because we are able.

Wassily Kandinsky was an artist and teacher working in the early 20th century. Kandinsky taught at the Bauhaus school, an art and design school in Germany that formed partly because they needed to improve their export product in order to gain economic stability. Kandinsky’s art and teaching is complex in nature, but two things can be learned from his theories.

The first is that, like William Morris, Kandinsky believed that the artist had a higher calling. He refers to an acute triangle floating in water with the point of the triangle bobbing above the waterline. Below the waterline is the concrete and above the waterline is the abstract. Kandinsky believed that artists lived in the zone above the water, that their thoughts existed in the abstract and it was the task of the artist to elevate the concrete thinking of the public to the waterline which represented understanding. He refers to Beethoven who, “in his own lifetime stood alone and discredited upon the peak. How many years had to elapse before a larger portion of the triangle reached the point at which he once stood alone?”⁹ The artist has a responsibility to create within a zone that is above the public understanding. The artist must be able to think and communicate in the abstract.

The pedagogy of Kandinsky’s courses at the Bauhaus is well documented in his book *Point and Line to Plain*, written in 1923, as well as in a book written by one of Kandinsky’s students:

⁷ Locke, John. *Essays Concerning Human Understanding*. (1690), Book Two, Chapter One.

⁸ Morris, William. *The collected works of William Morris; with introductions by his daughter May Morris*. (London, New York [etc.] Longmans, Green and company, 1910-15), Vol. 22, 4.

⁹ Lindsay, Kenneth C. and Vergo, Peter Eds. *Kandinsky: Complete Writings on Art (Volumes One and Two)*. (Boston, MA: G.K. Hall & Co, 1982), 134.

Howard Dearstyne.¹⁰ Dearstyne writes, “Kandinsky’s course in analytic drawing was not so easy to understand, now that I look back on it...the course had, as its purpose, to teach the students to experience objects as living beings...what he meant was that we were to observe the forces, the stresses, the tensions between objects and groups of objects. To him each complex...consisted of a system of forces...which, in a work of art, had to be in equilibrium.”¹¹ By carefully studying the constructive elements of a piece of artwork as if they were living entities, Kandinsky believed that students could more fully understand how to create a work of art.

This method of teaching art is still very apparent in the art curriculum today. Walk into just about any art room in the country and hanging on the wall you will find a series of posters outlining the elements and principles of art: they read color, value, line, shape, form, texture, space, balance, contrast, proportion, pattern, rhythm, emphasis, unity and variety. These terms represent the foundation of an education in aesthetics, a system that was founded by Kandinsky and his courses at the Bauhaus. However, instead of studying these elements thoroughly, as Kandinsky intended, examining the effects each element has on each other, the system of forces and creating equilibrium using elements, teachers skim over the terms checking for a basic understanding.

The blame for this cannot be placed on the teacher. The use of the art elements is often a part of state learning standards¹² and so teachers are required to talk about them in the classroom. Kandinsky, however, would never have approved of his teaching being used in classrooms today; he would have thought they were irrelevant and taken out of context. Even Dearstyne, who would have been a mature student in Kandinsky’s course, says the curriculum was “not so easy to understand.”¹³ If we are to use Kandinsky’s theories, we must either also follow his pedagogy- teaching students to view objects as living entities and how to map forces (which is far too complex for most of the students who are exposed to this teaching)- or develop our own words, meaning, and use.

The curriculum that follows, as inspired by the pedagogy of the past, will seek to encourage student led, scaffolded learning, taught through experience, emphasizing responsible creation and redefining the art elements. A new direction for art education will not only be influenced by the past, but also be shaped by recent educational philosophy. Recent theories point to the effects art can have on brain activity as well as critical thinking skills.

There was a time when art was thought to be a right brain activity. This right brained activity was constantly at odds with the left side of the brain which governed logic, hard work and the scientific part of our brains. Were this true, this would be argument enough for some to eliminate art programs in schools.

¹⁰ Dearstyne, Howard. *Inside the Bauhaus*. (New York, N.Y.: Rizzoli, 1986).

¹¹ Dearstyne, 152.

¹² As an example, the key idea of the Standard One of the New York State learning standards is “Students will understand and use sensory elements, organizational principles, and expressive images to communicate their own ideas in works of art.” www.emsc.nysed.gov/cjai/arts/artstand/artstand.html. Internet. Accessed 2 March 2009.

¹³ Dearstyne, 152.

New discoveries, however, have shown that the study of art involves a variety of areas of the brain and helps these areas interact to their fullest potential. In *Arts with the Brain in Mind*, Eric Jensen argues that upon studying the survival skills of our primitive ancestors, the ideal evolutionary course would include the development of both cognition (for flexibility) and instinct (for speed). Intuition is required in order to use these two functions of the brain in conjunction. Jensen believes that visual art is a vehicle to develop intuition.¹⁴ Thus art education has the ability to develop important survival skills and assist in developing a communication between important parts of the mind.

Further, Jensen describes how art making and seeing in general are a “whole brained experience.” “Seeing requires developing a created sense of what is and what could be. Seeing is not a passive process, as once believed. The information flows not just from the outside world, through the retina and optic nerves for processing. It also flows backwards, using our cognition and memory to double check, mediate and fill in what we see.”¹⁵ The study of art helps us to become better seers, using our brains to help us see and reason with what we are seeing.

Art has the potential to bridge the gap between the arts and the more formal subjects like reading, writing, math and science. In his book, *Art and Cognition*, Arthur Efland states, “If the aim of education is to fully activate the cognitive potential of the learner, ways have to be found to integrate knowledge from many subjects to achieve a fuller understanding than would be provided by content treated in isolation.”¹⁶ A major part of the art curriculum consists of viewing the history of art. Because art history looks at art from the span of human history, as well as from a variety of cultures, there is a fluid connection between art and other subjects such as history, science, and math.

In fact, the National Council for the Social Studies (NCSS) Task Force on Early Childhood/Elementary Social Studies states, “active, curious children need, want, and are able to learn skills...so that they can make generalizations and integrate new information into a developing system of knowledge.”¹⁷ Children as early as elementary school age are seeking to make connections between the different disciplines they are learning about in school. There is a need and a desire on the part of the student for this type of interdisciplinary learning.

Not only is art helpful in enhancing learning in social studies, but it is also capable of translating learning into the English Language Arts (ELA). In the book *The Colors of Learning*, the author writes, “by responding to children’s questions and guiding their research, teachers utilizing an integrated curriculum can promote children’s higher order thinking. Young children often communicate through drawing, including their scribbling. Integrating art into the curriculum fosters children’s use of symbols to communicate and express their ideas and feelings.”¹⁸ In the

¹⁴ Jensen, Eric. *Arts with the Brain in Mind*. (ASCD, 2001), 51-53.

¹⁵ Jensen, 55.

¹⁶ Efland, 103.

¹⁷ NCSS Task Force on Early Childhood/Elementary Social Studies, “Social Studies for Early Childhood and Elementary School Children Preparing for the 21st Century,” *Social Education* 53, no. 1 (1989): 15, 16.

¹⁸ Althouse, Rosemary, Margaret H. Johnson and Sharon T. Mitchell. *The Colors of Learning: Integrating the Visual Arts into the Early Childhood Curriculum*. (Teachers College, Columbia University, 2003), 3.

early stages of life, when reading and writing skills are few, art serves as a medium for communicating ideas and sharing knowledge.

Another theory that directly aligns learning in the arts with learning in ELA is a technique introduced by Abigail Housen and Philip Yenawine called Visual Thinking Strategies (VTS)¹⁹. VTS is a technique that allows teachers to promote discussion about artwork with their students. The process of VTS resembles Socratic discussion; it is a “conversation, a discussion, wherein two or more people assist one another in finding the answers to difficult questions.”²⁰ In Housen’s own words, “The VTS facilitator asks precisely crafted questions aimed at giving the learner a chance to construct meaning through viewing the work [of art].”²¹ Instead of focusing on the teacher’s knowledge, the teacher asks questions to lead the students to find answers on their own.

Important elements of VTS are student participation and the development of confidence to ensure that students say what they are thinking.²² Housen describes VTS as a “brainstorming process, the building energy of this process sweeps all children up. Even the most reticent children become active participants. Finally, the norms of the group process become each student’s models and scaffolds from which to expand his own cognitive repertoires. For example, a child learns that his interpretation has a greater chance of being accepted by the group, if he gives clear evidence for his remarks.”²³ Not only do students become confident in speaking in a group setting, but they also learn how to better construct their arguments. Both of these skills can be seen as important skills across the disciplines, but especially in ELA.²⁴

Most importantly, Housen believes that VTS can develop critical thinking skills. When teachers and faculty involved in using VTS in the classroom began frequently reporting that “the thinking patterns in VTS were showing up in other subjects,”²⁵ this sparked Housen to conduct some research. “Our Byron study convinced us that reasoning about art may be one of the best ways to pursue one of education’s most elusive goals: the development of critical thinking.”²⁶ When the techniques of VTS are used in the art classroom to talk about art, the students can develop skills that make them better thinkers in all subject matter.

¹⁹ For more information see www.vue.org. Internet. Accessed 2 March 2009. A basic description of the VTS process will be outlined in a lesson in the attached curriculum.

²⁰ This definition of the Socratic Method is taken from a website that talks about classical homeschooling- http://www.angelicum.net/html/what_is_the_socratic_method.html. Internet. Accessed 2 March 2009.

For another interesting example of a teacher using Socratic Method see- http://www.garlikov.com/Soc_Meth.html. Internet. Accessed 2 March 2009.

²¹ Housen, Abigail. “Methods for Assessing Transfer from an Art Viewing Program,” *Visual Understanding in Education* (March 2001), 4.

²² I have often heard teachers say they are cautious about group discussion, especially with young children, because either students will not participate or they will participate but say inappropriate things. VTS users swear by its ability to draw in students and keep them focused on the task. I have, in fact, both witnessed this and experienced it as a teacher myself.

²³ Housen, 5.

²⁴ In particular I refer to the ELA standards 1, 3 and 4- students will read, write, listen, and speak for (1)information and understanding (3)critical analysis and evaluation and (4)social interaction.

²⁵ Housen, 3.

²⁶ Housen, 27.

A new focus for art education has the potential to show results in the classroom that will cause educators to think twice before eliminating art education programs. This new focus will require a strong art history component to serve as a connection between the disciplines as well as new techniques like those found in VTS.

A professor once told me, “theory without practice is blind, practice without theory is empty.” In order to create a balanced learning experience for students, throughout my experience creating this curriculum I have tried to incorporate ideas that have come from both theory and practice. The theory having been explained, it is important to turn now to explaining how this curriculum has been shaped by practice, I will begin with my own experiences as an art student.

It wasn't until I was a high school student that the relationship between art and communication really made sense to me and I attribute the realization to the presence of art history in the classroom. My true art “renaissance” began when I could use art to transfer and express ideas I had about the world I lived in. This was a powerful experience for me as a student and I believe it affected all areas of my learning.

I felt disappointed when in college I took my first art history survey course. Why, I wondered, had I not been exposed to art history earlier? I was fascinated with the stories that were imbedded deep within a painting and the process by which the secrets of the artist could be revealed.

These aspects of art history are also appealing to young children, who have a natural inclination towards storytelling. It seems like common sense alone would encourage us to ask young students to look at a piece of art or a group of artifacts and tell us a story about them, the imagination is so rich in these early years.

Instead of thinking of art as a separate entity and focusing on training in aesthetics, the art classroom should be seen as a place where students learn how to look and also to think and transfer ideas. This learning comes through interacting with works of art and with each other. The use of VTS or a similar questioning structure encourages this type of behavior.

A strong component of all of my lessons is a time for looking at art and a period of questioning that is similar to the VTS method. I am not trained in VTS, but I do use my brief exposure to VTS as used in a museum setting as a guide to create the types of questions I feel appropriate for teachers to ask their students in order to lead them to a deeper understanding of art. The questions I suggest asking should be used only as a guide, as the types of responses will vary from classroom to classroom.

In my brief period of testing a VTS-like method in the classroom, I found that students were excited to communicate their ideas and getting from point A (a place of simple understanding) to point B (complex understanding) was painless and not time consuming. Abigail Housen's research tells us that if students are engaged in looking critically at art over a period of time their understanding of complex ideas will become even more fluid. In my experience this is absolutely true.

The lessons provided were created with the intention of being used in the elementary classroom. The reason for this is that the elementary art classroom is where I believe art history is utilized the least. The assessment tools for each lesson are designed specifically for use with students in 3rd through 6th grades, although they can certainly be adjusted to fit students from lower or higher grade levels. I have tried to create a variety of experiences spanning across time periods and cultures. Although the following lessons are just a sample of what may be covered.²⁷

Many of my lessons have an archaeology component. This is a personal bias as I am currently an employee at the New York State Museum working in the archaeology department. Every lesson I have created is directly linked to the impact that particular artist, artifact, or theme has had on my own understanding of the world. Thus, the theme of my lessons is greatly impacted by what I am exposed to on a daily basis.

I would encourage teachers to be in constant contact with artwork whether through museums, the internet, or books. It is through constant looking, a deep long looking, and research that new understanding will come about.

In the same vain, students should also be exposed to art, not just through digital images, but also through primary sources. Students shouldn't think that art is an image on a computer. Bring students to museums, local historical societies, even galleries featuring contemporary artists so that they are able to see art in a variety of media and so that they can have a deeper understanding of how art is used everyday.

The most important goal in my mind is for students to become accustomed to thinking about art as a communication tool. In order for this generation to have an influence on their world they will need to be able to comment on society in a way that gets attention. This requires not just the ability to think, but also the ability to create work that has an impact. This has been the goal of artists throughout history and is something that is often lost and forgotten in the present day. I believe that teaching the history of art will help to equip this generation with the tools to think outside the boundaries of traditional art.

I think of Jacques Louis David and how he must have felt in his own artistic renaissance. When his painting "Oath of the Horatii" was placed on the wall at the Salon²⁸ it must have shocked its audience. A royal commission, this painting would have had certain parameters including type of scene that was to be painted and size. Not only was the painting late in arrival,²⁹ but David chose to depict a scene that was outside the chosen text and change the dimensions of the work so that instead of hanging on the second rank of pictures it would be hung amongst the highest rank. He was deliberately choosing to go against the grain in order to make a statement.

²⁷ For an additional resource with examples of lessons that incorporate art history see Marianne C. Saccardi's book, *Art in Story: Teaching Art History to Elementary School Children*, published in 2006 by Libraries Unltd Inc.

²⁸ Organized and highly regulated by the French Academy of Painting and Sculpture in 1737, the Salon was a large venue in which artists chosen by the Academy could exhibit their art. The Salon was located inside the Louvre.

²⁹ Thomas Crow cites this as "an act of calculated delay which served to heighten public anticipation already served by reports of its rapturous reception in Rome." Crow, 214.

The painting did not receive critical acclaim, even the Academy who adored the work of David found fault in the Horatii painting. In 1785 David writes to one of his protectors, "I left off making a picture for the King and made one for myself." In a time of revolution David's message was not to the King but to the people- we must make an oath to restore the nation above anything else.

David had satisfied the goals of the artist- he had sent a message to the public. The history of art is littered with examples of artists taking risks in the hopes of having an impact on the world in which they lived. My hope is that all students might have a moment like that which David experienced, that they might feel empowered enough that they endeavor to move outside of their comfort zones and be bold in demanding change.



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- II. Lesson 1: Meketre's Tomb and Archaeology**
 - a. See PowerPoint presentation- "meketre.ppt"

Meketre's Tomb and Archaeology

Objectives:

- 1) Students are able to define the work of an archaeologist.
- 2) Students will discuss what an archaeologist might learn from the objects in Meketre's tomb.
- 3) Students will create figures and settings out of found objects.
- 4) Students will describe what their "tomb sculpture" says about them.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
Give examples of adults who make their living in the arts profession.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures.
Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Social Studies: 2.1, 2.2, 2.3, 2.4, 3.1, 4.1, 5.1, 5.4

Math, Science, Technology: 4.2g, 5.2, 5.5, 5.6, 6.2

Important Terms/Vocabulary:

Archaeologist
Tomb
Sculpture
Paper Mache
Found Object

Assessment: (see also the following assessment form)

Students should be assessed in two parts-

The first assessment is based on their participation and observations during the slideshow (day one) and sharing (day six).

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) Is the student able to talk about and define the work of an archaeologist?
- 3) Can the student verbally describe a feature of the Egyptian civilization that is learned about from the figures found in Meketre's tomb?
- 4) Is the student able to share the meaning of their sculpture with the class?
- 5) Can the student accurately use the following terms- archaeologist, tomb, sculpture, paper mache, found object

The second assessment is based on the student's "tomb sculpture".

- 1) Does the sculpture incorporate three figures?
- 2) Does each of these figures have a different form?
- 3) Is there a distinct theme associated with the sculpture?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|---|--|---|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participation ... relevant? ... appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Is the student able to talk about the work of an archaeologist? ... define an archaeologist? | YES, the student can do both tasks independently. | The student is able to do one task independently, but needs help with the second task. | The student needs help with both tasks. | NO, the student is not able to do either task even with assistance. |
| Is the student able to talk about a feature of Egyptian civilization which is related to an object found in Meketre's tomb? | YES, the student is able to talk about several features, all of which came from the Meketre's tomb. | YES, the student is able to talk about more than one feature which came from the Meketre's tomb. | YES, the student is able to talk about at least one feature which came from the Meketre's tomb. | NO, the student makes no connections to Meketre's tomb. |
| Can the student accurately use the term... ... tomb? ... sculpture? ... paper mache? ... found object? | YES, the student is able to accurately use all four terms. | The student is able to accurately use two to three of the four terms. | The student is able to accurately use one of the four terms. | NO, the student is not able to use any of the terms. |
| Does the student's tomb sculpture have at least three figures? | YES, the students sculpture has three or more figures. | The students sculpture has two figures. | The students sculpture has one figure. | The students sculpture has NO figures. |
| Do the figures... ... have different forms? ... relate to the theme of the sculpture? | YES, they all have a different form and are all related to the theme. | Two figures are the same, one is different. They are related to the theme. | The figures are all the same, but they relate to the theme. | The figures are all the same and do not relate to the theme. |
| What is the theme of the sculpture? | | | | |
| Project Grade | | | | |
| Comments | | | | |

Materials/Resources:

A supply of found objects (ex. peanuts, pompoms, pipe cleaners, beads, pieces of wood, etc.)
A few rolls of masking tape
A large supply of newspapers cut into lengthwise strips and a few uncut to cover the work station
Flour
Water
Several bins for holding paper mache glue
Tempera paint
School glue
Paintbrushes
A cardboard box for each student (shoebox size is best).

Anticipatory Set:

Bring in something old you have found to share with the students. A great example is an old glass bottle (you can buy something like this at a thrift store if you don't already have an example at home). Tell them a story about how you found it in your yard while gardening (or something similar- this could just be a story that you make up) and you think it's something really old. Ask students: Have you ever found something while digging a hole in your backyard? Let students share stories (if time allows).

Instructional Procedure:**Day One: Meketre's Tomb**

Show the students the powerpoint slide show and follow the notes attached to each slide. The most important thing you will want the students to understand is how we learn about ancient Egyptian life by looking at the objects left behind in Meketre's Tomb. How does the material culture of previous peoples tell us more about that culture? This is essential to the art project that will follow, in which the students will make something that will tell future people about their own lives.

Day Two: "Our own" tombs

Begin by reviewing the information learned in the previous class. Repeat the definition of an archaeologist and ask the students: What were some things we learned about Egyptian life from the images we saw last class? What are some things that we might leave behind that would tell people in the future about our lives? Use this as a brainstorming session for the project that will follow.

When you feel the students are ready to begin working and when you have had enough time to assess what they were able to retain from the previous days presentation give each student a piece of paper to write and plan their idea on. Show them an example of a completed project. As students plan make sure to walk around and continue to check for understanding. When the students are ready, give each student a box to store their work in. Explain that they will have a variety of materials to work with in order to create their own "tomb sculpture". Part of the sculpture must be made up of three figures (human or animal or both). Demonstrate a few

ways that figures may be made using found objects and masking tape. Show the students how we will eventually be covering these figures with paper mache so that the found objects can not be detected. Ask the students questions to get them thinking: What kinds of figures will you have in your sculpture? What will the figures be doing? Will they all be the same size or different sizes? Give the students the rest of class and the beginning of next class to complete their figures.

Day Three: Figures

Give the students the first part of class to finish work on their figures. When you are ready, show the students how to paper mache their figures. Have a station set up on a table for paper mache-ing. Make sure to cover the surface with plastic or newspaper as the paper mache glue is very messy. Tear strips of newspaper by tearing along the long side of the paper (tearing will create a graduated edge which will make the mache item look seamless). Have a large shallow bin for the mache glue. To make the glue mix 3 cups of water with 2.5 cups flour (this is easiest to mix with your hands).

Demonstrate how the paper mache process should work. **Students should wear smocks!!**

1. Take a strip of newspaper from the pile.
2. Lightly dip the newspaper in the bin of glue.
3. Run the paper through your pointer and middle finger (this should assure that glue saturates the entire strip).
4. Wrap the wet paper around the found object figure.
5. Smooth down the edges of the paper (this is especially important for the finishing pieces).
6. When figures are complete set them to dry inside the students cardboard box.

Day Four: Completing the sculpture.

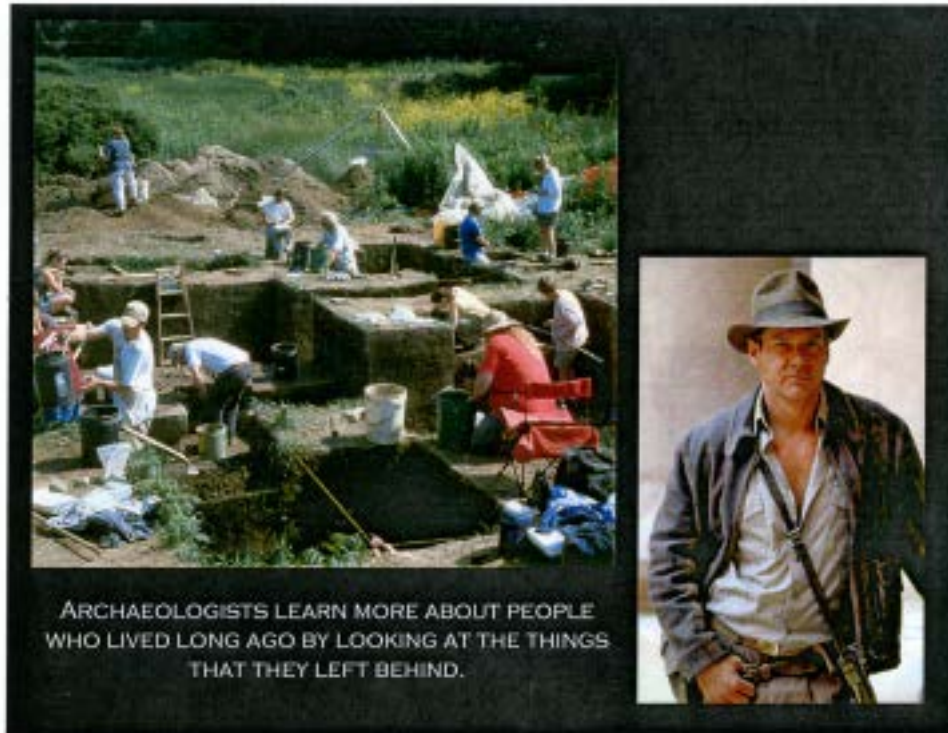
Give the students day three and four to work on completing their "tomb sculptures". By the end of day four all their figures should be paper mache-d (but not necessarily dry) and the box the figures will be placed in should be completely furnished.

Day Five: Painting.

Set tables up with paint stations. To make the paint mix two parts tempera paint with one part Elmer's (or another brand) glue. Each table should get a variety of colors to use with a brush in each color. Explain that these brushes must remain with their associated color. Each student can take a turn with the color of their choosing and can paint their tomb sculptures. Explain to students that by painting the sculptures we are disguising all the found objects that we used. You may allocate more than one day for painting if desired, however, one day should be sufficient.

Day Six: Share

Use this day to allow students to share their sculptures with each other in show and tell format. Take note of what each student has to say and keep the assessment tool at hand to mark down important information that the student has been able to retain as well as observations from other students. Ask the student: If your sculpture had a title, what would it be? This is an opportune time to check for understanding.



Begin by asking the students: Can anyone tell me what an archaeologist does?

When students have had sufficient time to answer click the screen to pull up the definition of an archaeologist. Read aloud for students.

Click the screen again and ask if the students can tell you anything about the man in the picture.

After listening to their responses tell the students about Indiana Jones and how the Hollywood version of archaeologist is different from the real version of archaeologist (click the screen to show the picture of archaeology at SUNY Binghamton) This may be a great opportunity to show a movie clip from one of the Indiana Jones films.

For more information on how archaeology is not like the Indiana Jones films see:

<http://www.saa.org/Public/fun/Fancher.html>

Photos from:

<http://www.indianajones.com>

<http://www.binghamton.edu>



Say to the students:

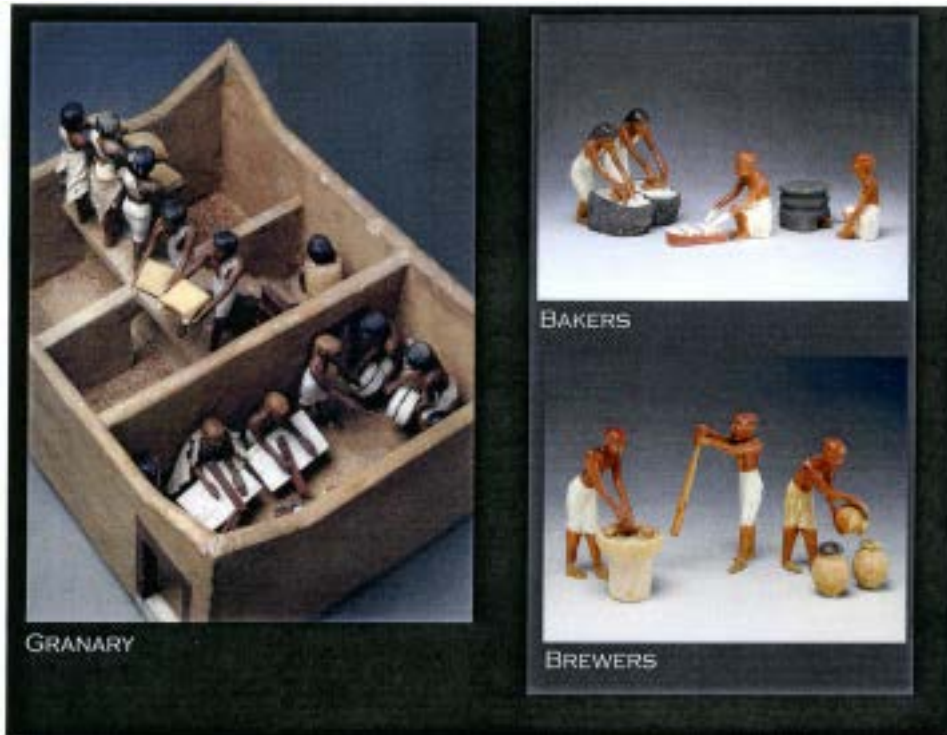
Let's look at a few examples of how the things people have left behind tell us more about the lives they lived.

The Egyptians who lived long ago had a very unique way of burying their dead. Who knows what a mummy is?

The Egyptians believed that a spirit would live inside the body of a person even after it died. Because of this it was important to make sure that the body was well preserved (this is why Egyptians mummified their dead) and that the spirit would be well provided for while inside the tomb. Items included in the tomb would provide the dead person all they needed to continue living.

(for more information see: <http://www.dia.org/collections/ancient/egypt/egypt.html>)

In the 1920's, while archaeologists were making maps of the tomb of an Egyptian treasurer named Meketre (which had been plundered in ancient times), they discovered a secret chamber which had been untouched since it's creation. Let's go inside and see what the chamber looked like (click the slide).



Inside the chamber archaeologists found 24 miniature models of activities that would have taken place on Meketre's estate. They also tell us about the Egyptian belief that these models could provide the dead with whatever they needed in the afterlife (much like the magic that made the figures in the movie "A Night at the Museum" come to life).

On this slide we can see a building which houses the granary and two activities the grain was used for (and the main ingredients in an Egyptians diet)- bread and beer.

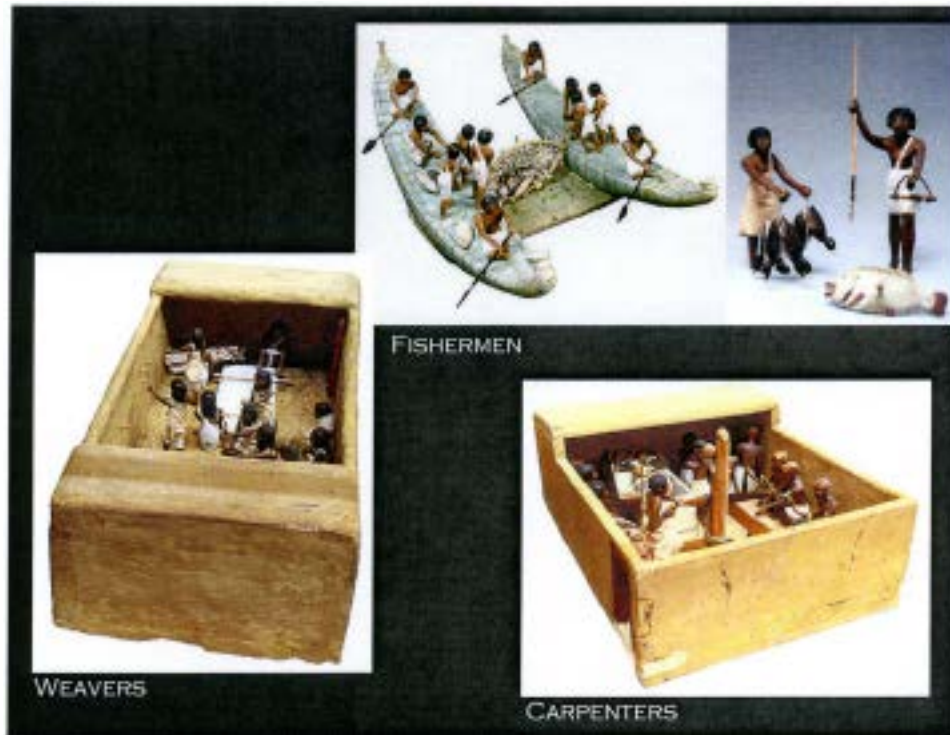
(for more about the granary see:

http://www.metmuseum.org/explore/newegypt/htm/wk_gran.htm)

Explain the processes that go on at the granary, also ask the students if they have ever seen someone make bread. Tell them about how the brewers made beer and why the Egyptians drank beer (clean water was not available).

Ask the students: How has the process of making simple things like bread and beer changed since the time when Meketre was alive?

For more about these processes and the ones on the following page please see the article written in *the Metropolitan Museum of Art Bulletin* by Catherine H. Roehrig entitled Life Along the Nile: Three Egyptians of Ancient Thebes. Vol.60, No.1 (Summer 2002).



On this slide we can see some weavers. Point out the women on the left who are measuring lengths of wool using pegs on the wall.

There is also a picture of a fishing boat and a picture of two men, one holding ducks and the other catching a fish- both of these animals would have been eaten by the ancient Egyptians.

On the bottom right are some carpenters.

Talk to the students about what each of these professions involves.

Ask the students: What have we learned about ancient Egyptian life by looking at the pictures of the models that came out of Meketre's Tomb?

Meketre's tomb pictures taken from:

www.metmuseum.org

www.eternalegypt.org

III. Lesson 2: Pigments

- a. See PowerPoint presentation- “pigments.ppt”

Pigments

Objectives:

- 1) Students can describe how paint was made in ancient times, in the 17th Century, and today.
- 2) Students recognize that pigment is necessary for making paint.
- 3) Students can list a variety of natural sources of pigment.
- 4) Students can describe the difference between a natural material and a man-made material.
- 5) Students will create their own oil paint.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
Give examples of adults who make their living in the arts profession.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 2* Read a variety of literature of different genres.
Use inference and deduction to understand text.
Read aloud accurately and fluently, using phonics and context cues to determine pronunciation and meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Science/Math/Technology- 1.1, 3.5, 3.6, 4.3, 5.6

Social Studies- 2.1, 2.2, 2.3, 2.4, 3.1, 4.1

Important Terms/Vocabulary:

Mortar and Pestle

Pigment

Natural Material vs. Man-Made Material

Assessment: (see also the following assessment form)

Students should be assessed in two parts-

The first assessment is based on student participation and observations during the slideshow and in class.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) Is the student able to describe how paint was made in ancient times, in the 17th Century and today?
- 3) Students can list a variety of natural sources of pigment.
- 4) Students can describe the difference between a natural material and a man-made material.

The second assessment is based on the student's participation in making the oil paint.

- 1) Does the student recognize that pigment is a necessary ingredient in making paint?
- 2) As a part of a group, is the student successful in making oil paint?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|---|---|--|--|
| Was the student an active observer? | The student made more than one observations and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participationrelevant? ... appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Is the student able to describe how paint was made... ... in ancient times? ... the 17 th century? ... and today? | YES, the student can describe all three. | The student is able to describe two out of three. | The student is able to describe one out of three. | NO, the student is not able to describe any of the three. |
| Is the student able to list a variety of natural sources of pigment? | YES, the student is able to list several natural sources. | YES, the student is able to list at least two natural sources. | YES, the student is able to list one natural source. | NO, the student is not able to list any natural sources. |
| Is the student able to distinguish between a man-made material and a natural material? | YES. The student is able to distinguish between the two. | | | NO. The student is not able to distinguish between the two. |
| Does the student recognize that pigment is a necessary ingredient in making paint? | YES. The student recognizes that pigment is a necessary ingredient in paint. | | | NO. The student does not recognize that pigment is a necessary ingredient in paint. |
| As a part of a group, is the student successful in making oil paint? | YES. The group successfully made oil paint. | | | NO. The group was unsuccessful in making oil paint. |
| Project Grade | | | | |

Materials/Resources:

Several pieces of colored chalk (the brighter the better) - they don't need to be whole.
Ziplock Bags
Rubber Mallet
Mortar and Pestle (one for each group of students)
Eyedropper (one for each group of students)
Small Spoon (one for each group of students)
A small piece of prepared canvas (does not need to be stretched) - one for each student.

Anticipatory Set:

Ask the students: When do you think the first painting was created?

Instructional Procedure:**Day One:**

Go through the Powerpoint presentation using the notes as a guide. This will probably take the whole class. End the class by showing the students a variety of types of paint that artists use today (ex. tempera, oil, acrylic, watercolor, etc).

Day Two:

Set up a scavenger hunt for the students. Hide pieces of colored chalk outside in a safe area where kids can roam around (try not to get the chalk excessively dirty). Explain to the students that they are going to pretend they are artists from long ago and they need to make their own paint. Ask the students, In order to make our own paint- what's the first thing we will need? Hopefully someone will remember the previous lesson and mention that a pigment is essential to the paint making process. Send the students out to collect the pigments (colored chalk). Have a basket available for the collected pigments. When you feel as though you have collected a sufficient amount, bring the students inside.

Explain how these pigments need to be ground into a fine powder before they can be used for paint. Show the process-

Step 1: Put the piece of chalk into a sealed plastic bag and hit it with a rubber mallet.

Step 2: Remove the pieces of chalk from the bag and place in a mortar, use the mortar and pestle to grind the chalk into a fine powder.

If time permits, allow students to use a mortar and pestle to grind chalk.

Day Three:

Ask the students: If I wanted to make my own paint what is the first ingredient I would need? Talk again about how paint was made through history focusing on the three periods talked about in the slide show. Tell the students that we will be making paint using the same method that painters in the 17th Century used.

Place a variety of ground colored chalks in cups at a table that the students can access (the grinding should be done ahead of time by either using the ground chalk from the previous day or

by making them yourself anytime before class)¹. Introduce the students to the variety of colors available to them. As a review ask them: if we had found this color in nature what would it have come from? Look for answers that pull from the PowerPoint the students saw on the first day.² In order to make oil paint the students will be mixing together the ground pigments and sunflower oil. Each group of students will need their own mortar and pestle³, eyedropper, and a small spoon. Show the students how this is done. Carefully add a small spoon of pigment and a dropper of oil to your mortar and pestle. While demonstrating, note the physical change that happens as the pigment is mixed with the oil. Ask the students, Do you think this measurement needs to be an exact one or an estimate? Grind the pigment into the oil, you cannot overgrind! Emphasize that the students will need to work carefully adding little bits of pigment and oil at a time. This should feel a lot like a chemistry class. When a group has prepared their pigment allow them to test out the paint on some prepared canvas. Make sure to ask for student thoughts on using the oil paint. How is it similar or different than paints you have used in the past?

Further Reading:

Instructions for making tempera paint: www.alessandrakelley.com/mixpaint.html

Instructions for making other paints: JChemEd.chem.wisc.edu, Journal of Chemical Education, Vol.78 No.10 October 2001.

Basic Oil Painting: www.geocities.com/~jlhagan/lessons/how_to_paint_in_oils2.htm

The Craftsmen's Handbook, Cennino Cennini, translation by Thompson first published in 1933.

About Prehistoric Paint: www.shulma.org/discover/paintmaking.htm

An excellent resource describing ways to make all four types of paint: www.kamapigment.com (click on the demo button on the menu bar).

¹ Instead of using ground chalk you can use a variety of natural ingredients to create pigment such as, cocoa powder, artificial saffron, local soil samples, and turmeric. This would create a very natural palette, much like the cave painters would have used. You may also use black shoe polish and zinc oxide to lighten and darken paints.

² I will describe the process for making oil paint, however, I have included links that describe tempera, acrylic, and watercolor as well.

³ These may be purchased in bulk from thermo-fisher scientific or scientificsonline.com, otherwise check with the science department.



Tell the story of the *discovery* of Altamira, use the description on the Altamira museum website (<http://museodealtamira.mcu.es/ingles/descubrimiento.html>) or from the PBS website as a guide if needed: (<http://www.pbs.org/howartmadetheworld/episodes/pictures/altamira/>). Say something like, "Marcelino was an archaeologist who was working in a cave in the town of Altamira. One afternoon his nine-year-old daughter Maria came with him to the cave. As she wandered deep into the cave she looked up and saw what appeared to be bison on the ceiling."

Be careful not to reveal all the details about the cave (read on to understand why), just talk about the discovery. Make sure the students know that this was the first time anything like this had been seen.

Click on the screen to reveal the images of Altamira.

Ask the students questions like:

1. When do you think these images were created?
2. Were they created by one person or several people?
3. How do you think they were created? Mention that the cave would have been tall (the image of the woman with the magnifying glass can be used to indicate scale). Also ask students to talk about what material would have been used to make the images- was it paint? chalk? charcoal?

Now describe the story of Sautuola further- tell the students that he thought these paintings had been done by cave people, but that fellow scientists claimed he was wrong.

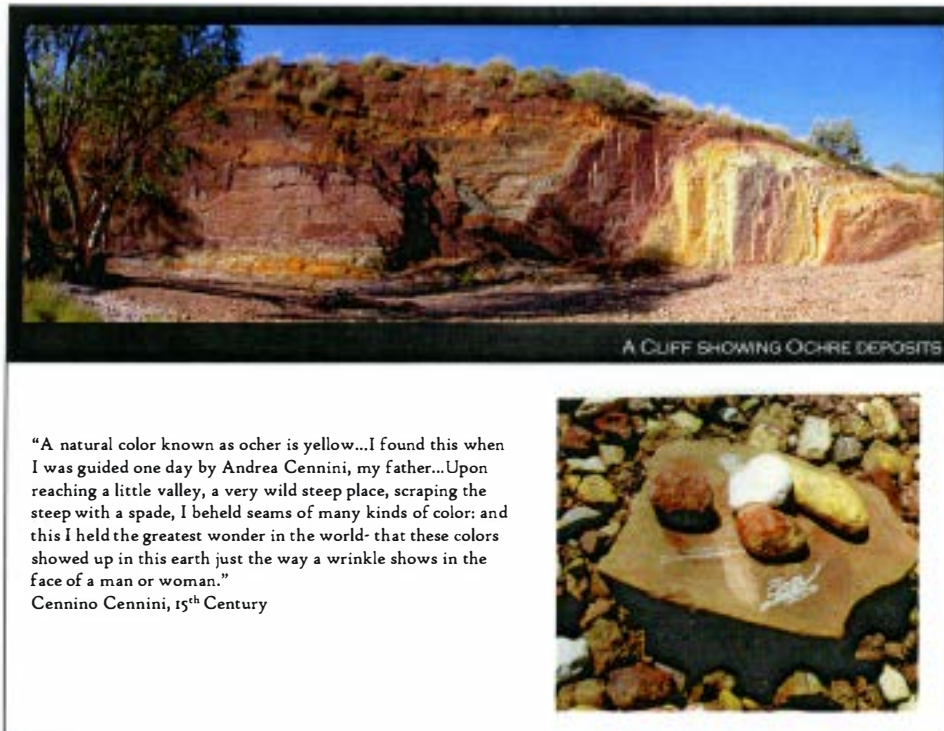
Ask the students: Why do you think the other scientists thought he was wrong?

Tell the students that later more cave paintings were discovered and people began to see that Sautuola was probably right- that these paintings had been done by cave people. Carbon-14 dating (they probably won't know what this is so it may be better to say that "scientific testing") has indicated that this cave was inhabited 15,000 years ago.

Pictures of Altamira taken from the Altamira Museum Catalog, copyright Ediciones Aldeasa, 2006.

Picture of Marcelino Sanz de Sautuola from commons.wikimedia.org

Picture of his daughter Maria is from www.donsmaps.com



“A natural color known as ochre is yellow...I found this when I was guided one day by Andrea Cennini, my father...Upon reaching a little valley, a very wild steep place, scraping the steep with a spade, I beheld seams of many kinds of color: and this I held the greatest wonder in the world- that these colors showed up in this earth just the way a wrinkle shows in the face of a man or woman.”
Cennino Cennini, 15th Century



This slide will introduce students to a natural coloring material known as iron oxide or ochre (O-ker). Ochre is found in several parts of the world including Australia, Cyprus, France, England, and the United States. Use the pictures and quote from Cennino Cennini’s book “The Craftsman’s Handbook” to indicate what ochre looks like in its natural state. Allow students to read portions of the text aloud, assisting when needed. Check for understanding. Ask the students to point out the different colors they find in the picture of the ochre containing cliff shown on the slide. They should be able to at least point out the yellow portions, in addition they may be able to find shades of red and brown.

Explain to the students how this rock would have been found and used in creating paintings. The ochre would be crushed into a powder using a mortar and pestle type device. This powder could be used in a few different ways.

1. The powder could be rubbed using one’s hand.
2. The powder could be placed in a hollowed out bone and blown out on to the rock (this is probably how the hands on the previous slide were created).
3. The powder could be mixed with animal fats to create a paint which would be applied with an early version of a paintbrush.

Pictures:

TOP- Australian Ochre Pits (<http://nightglow.gsfc.nasa.gov>)

BELOW- a natural paint box at Jumped Creek in the Northern Territory of Australia

(from Victoria Finlay’s book, Color: A Natural History of the Palette, New York, 2002.



Tell the students about other minerals that can be used the same way as ochre. There is a video link below that may be used if helpful.

Malachite- skywalker.cochise.edu/

Lapis Lazuli- Victoria Finlay's book, [Color; a Natural History of the Palette](#), New York, 2002.

Cinnabar- www.webmineral.com

http://science.discovery.com/convergence/hotrocks/map/art_video.html



Now introduce some of the plant/animal products that can be used for to make pigments. The history of these dyes is very rich. Please choose the appropriate amount of information for your particular classroom.

Indigo- This dye was made famous for its use in coloring blue jeans. Extracting the dye from the indigo plant is complicated and described in the following text. "As part of their preparation, the leaves of indigo must go through a process of fermentation and then oxidation to yield the blue dye. Traditionally fermentation is carried out naturally by bacteria. The harvested plants are packed into tanks and covered with water. After a few hours, the leaves become saturated and fermentation begins. A thick layer of bubbles and scum forms at the top of the tank. The process can be so vigorous that planks are placed on top of the vat to keep the plants in. This process can take up to a day and a half to complete, but must be finely timed. The indigo makers will smell and taste the fluid to check. Even an hour too long could ruin it. As soon as the liquid tastes sweet and is a dark blue colour, it is siphoned into another vat at a lower level, leaving the plants behind. The liquid now contains indoxyl. The liquid is then stirred continuously for several hours because it needs oxygen from the air to stimulate oxidation of the indoxyl. Alternatively people will get into the vats and tread up and down to stir it up. Eventually the liquid turns a yellow-brown colour with floating dark blue patches. The solution is left to rest and the insoluble indigo settles to the bottom of the tank as a blueish sludge. The water is drained and filtered to remove impurities and to stop the enzyme reaction which made the indigo. The sludge is dried to produce indigo 'cake' which is cut into cubes or made into balls."

Pictures and text from: www.plantcultures.org/plants/indigo_landing.html

Left Picture- Islamic text picturing the equipment needed to make indigo die and the process used to dye and stamp a piece of cloth.

Top Right- A sample of the indigo plant (note it is the leaves and not the flowers that are used in creating the dye)

Bottom Right- A brick of indigo dye.

Murex/Purpura Pansa- Both these words are names of shells that excrete a clear liquid. When the liquid is exposed to sunlight it will turn into a deep purplish-red. The process of dying fabrics with this substance is talked about by Pliny the Elder in his book *Natural History*, written AD 77. An excerpt may be found here: www.chriscooksey.demon.co.uk/tyrian/index.html

Pictures: Two murex shells- www.manandmollusc.net/

Emporer Justinian wearing a robe that would have been dyed with murex- http://en.wikipedia.org/wiki/Tyrian_purple

A man with a skein of cotton died with the tears from *Purpura Pansa* shells from the Oaxaca Coast of Mexico, from Victoria Finlay's book, *Color: a Natural History of the Palette*, New York, 2002.

Saffron- The stigmas of the *Crocus sativus* are harvested and dried to create saffron. The dried saffron would have been mixed with beaten egg whites and then painted on to medieval manuscripts.

An Indian Kashmiri girl collects saffron from a field at Pampore on the outskirts of Srinagar, 31 October 2007, as the season of cultivation of the prized crop began in the valley. Many historians believe that it was in this region that the cultivation of the purple *Crocus Sativus* saffron flower first began, although it is impossible to be sure where its origins lie. Picture and text from: www.daylife.com/photo/07Lw6tm26i3ID

Page from an Illuminated Gospel, late 14th--early 15th century, Ethiopia, Amhara region from: www.metmuseum.org



As science evolved, pigments began being made out of chemicals (man-made material) in addition to minerals, and plant and animal material (natural material). Artists could purchase these pigments from the local Apothecary (the apothecary was like today's pharmacist). Although more colors were available, artists still had to mix the ground pigments with a binder in their workshop. The artists usually left these menial tasks to their apprentices.

Ask students to look at the painting on the right,

How many people are in the painting?

What is each person doing?

Describe the different activities of the three people-

Person 1: the artist (he is the one on the left who is working directly on the canvas)

Person 2: apprentice 1 (the man furthest to the right, he is grinding pigments)

Person 3: apprentice 2 (the man in the middle but shown furthest back, he is mixing pigment with a binder to create paint for the artist)

Ask the students if this is what we do today when we paint.

Another great video clip to show is from the movie "Girl with a Pearl Earring" Directed by Peter Webber, 2003. There is a scene where Griet assists Vermeer in making paint and a scene where Griet goes to the apothecary to pick up some pigment. If you are going to show clips, beware that the movie has is rated PG-13.

Pictures:

Apothecary Shop- <http://oha.alexandriava.gov/apothecary/ap-index.html>

Bottles of pigment- from Victoria Finlay's book, Color; a Natural History of the Palette, New York, 2002.

Painting by Adriaen van Ostade, The Painter's Studio, c.1640, property of the Rijksmuseum (www.rijksmuseum.nl)



“1842 The collapsible, screw cap tube mechanism is patented

William Winsor patented the first screw cap mechanism for a collapsible metal tube. Following this invention, tin tubes were very quickly accepted as containers for oil colours and a few years later Winsor and Newton were able to uniquely offer moist water colours in tubes. “

Text and pictures from: www.winsornewton.com/timeline

Ask students: How do you think the invention of the screw top tube changed the life of a painter? They may use the pictures to help them.

Painting could now be made portable. This revolutionized the life of a painter- the focus turned to landscapes and the Impressionist movement followed shortly after.

Picture: Wilson Irvine painting *en plein air* with portable easel.

www.flogris.org/learning/foxchase/index.php

IV. Lesson 3: Hokusai

- a. See PowerPoint presentation- "Hokusai.ppt"

Hokusai

Objectives:

- 1) Students will classify Hokusai within a historical context
 - a. Students will describe Japanese art before Hokusai.
 - b. Students will explain how Hokusai's art was different from other Japanese art.
 - c. Students will explain how artists in Europe were inspired by Hokusai.
- 2) Students will create their own prints.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures. Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Social Studies: 2.1, 2.2, 2.3, 2.4, 3.1, 4.1, 5.4

Math, Science, Technology: 1.2a, 1.2c, 3.7, 5.2, 5.5, 5.6

Assessment: (see also the following assessment form)

Students should be assessed in two parts-

The first assessment is based on their participation and observations during class participation.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) As a class, can the students define Hokusai in a historical context?

The second assessment is based on the student's prints.

- 1) Does the print show depth (foreground, middleground and background)?
- 2) Does the student have a variety of prints?
- 3) Does experimentation show a learning curve?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|--|---|---|---|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participationrelevant? ...appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Can the student... ... describe Japanese art? ... explain the difference between Hokusai's art and other Japanese art? ... list the ways artists in Europe were inspired by Hokusai? | YES, the student can do all three. | The student is able to do two of the three. | The student is able to do one of the three. | NO, the student is not able to do any of the things listed. |
| Was the student able to make a print? | YES, the student has more than two prints. | YES, the student has two prints. | YES, the student has one print. | No, the student was not able to make any prints. |
| Does the student's print show depth... ... a foreground and background? | YES, the student's print has both a foreground and background and has a visual depth. | The student's print has either a foreground or a background and shows depth. | The student attempted to include a foreground or background but it was unsuccessful in creating a sense of depth. | The student was unable to exhibit depth because they did not include a foreground or background in their print. |
| Did the student experiment when creating their prints? | YES, explain: | | | NO |
| Project Grade | | | | |
| Comments | | | | |

Materials/Resources:

Drawing paper

Manga packets (one per student- a set can be used for multiple classes)

4" by 6" pieces of newsprint (one per student with a few extra)

4" by 6" pieces of foam (one per student with a few extra)

5" by 7" pieces of good quality printing paper (several pieces per student)

Non-permanent markers

Masking tape

Sharp pencils

Several basins of water

Paper towels

Anticipatory Set:

Begin by setting rules for the students. This type of activity can be very exciting for students and it is important to let them know how you would like them to act.

Explain that they will be looking at some pictures and you will be asking them questions. Tell the students what your expectations are (this will vary based on the class)- for example: I expect you to listen when someone else is talking, if you have something to say raise your hand, etc...

Instructional Procedure: This lesson will benefit from having an aide in the classroom.

Day One:

Work through the slide show. The entire show with time for questions and response should take about half an hour. Students are, in general, very capable of sitting through the entire slide show (adjust if necessary). Make sure that the students are able to understand the basic terms- trade, perspective, foreground, middle-ground, background, and shading.

If time allows hand out the "manga packets" and some blank paper. Ask the students to write their names on the blank paper. Explain that "manga" is a Japanese term for comics. Hokusai would make comics (pictures of everyday Japanese life) to help him with his prints. The pictures in the packet are taken from Hokusai's manga. Ask students to use the remainder of the class to sketch some things using the manga as a guide.

Day Two:

Go over the material discussed in the previous class making sure to review any new terms (ie. Manga, trade, perspective, shading). Pass out manga packets. Describe how Hokusai used the manga to think through his ideas to make his final product. Allow students to use a good portion of this time to make some sketches on their own. Pass out the papers they worked on last class to help them remember what was done last time. They may continue to sketch on these papers. When they have come up with a final composition they may draw this onto a 5" by 7" piece of newsprint.

Use the second half of the class to talk to the students about the process they will be using to make a print (see instructions below). Explain what it means to make a print (one image, several pieces of art) and demonstrate how different prints can have different colors. Tell students they may begin working on foam after you have approved their final drawing.

- Step One- Create a final drawing on a 4" by 6" piece of newsprint.
- Step Two- Carefully tape the newsprint onto a 4" by 6" piece of foam with a small piece of masking tape with the drawing facing away from the foam.
- Step Three- Trace the lines of the drawing with a sharp pencil so that the pencil makes an impression in the foam.
- Step Four- Write the students name on a piece of masking tape and put the tape on the backside of the foam. Remove the taped on piece of paper.
- Step Five- Have the students use markers to color their print. Explain that they will be coloring around the lines NOT in the lines.
- Step Six- Have students go to the print work station. Here there will be three sections. The first section is a spot with 5" by 7" pieces of good quality paper and pencils. Students should write their names on the paper.
- Step Seven- Students should dip their paper into a water basin so that it is fully saturated. Move the wet paper to a paper towel lined table. Pat the paper with paper towels to remove excess water. (this area will need to be periodically relined with new paper towels)
- Step Eight- Remove the paper carefully and place it on the colored side of the foam so that the students name is facing them.
- Step Nine- Gently press on the paper (DO NOT RUB!) and remove the paper from the foam.
- Step Ten- Carefully move the paper to a flat surface to dry.
- Step Eleven- Rinse off the piece of foam. Go back to step five and do it again!

Day Three:

Go over material from previous classes. Ask specific questions about the differences between Hokusai's art and the art of previous Japanese artists, also ask about the technique Hokusai used to create his artwork. Explain the print process again for students. Tell the students that you would like each of them to have completed at least one print by the end of class. Allow students to work, carefully monitoring their progress.

Day Four:

Allow students more time to create prints. Some students may be quite skilled at the process by this point, others may just be getting a hang of it. It is important to give those that are still mastering the skill time to improve. The students that have already mastered the skill will not

mind making many prints- you will find that the students really get into the process and are able to create a variety of prints.

Day Five:

Use this time to share. This day doesn't need to directly follow day four, however the closer it is the easier it will be for students to recall what they've learned. Have each student choose their favorite print and display them on a bulletin board. Work on this process together so that students can get a feel of what it is like to display their own artwork. After you have created a display ask students to reflect on their work. Allow them to make comments on the work of others- asking for specific things like "which print is your favorite, why?" (questions will discourage negative feedback which is not necessary at this age).

These are very good children's books that highlight Hokusai's life. The first book includes sections of Hokusai's manga on the endpapers.

Hokusai: The Man Who Painted a Mountain. Written by Deborah Kogan Ray, published October 2001

The Old Man Mad about Drawing: A Tale of Hokusai. Written by Francois Place, published October 2003



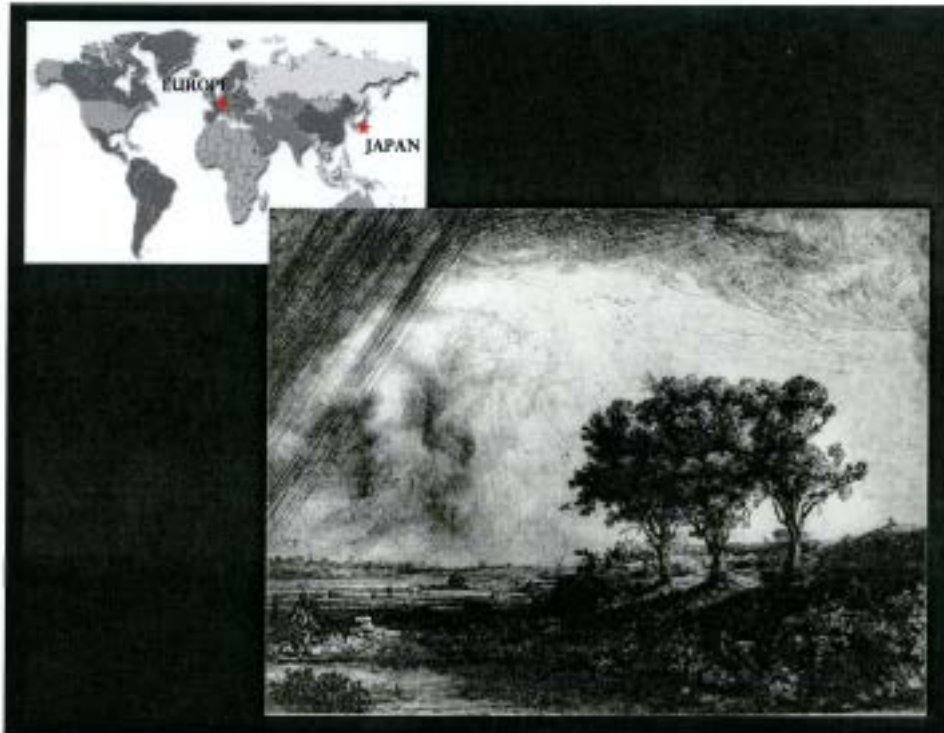
Ask the students: Do you think these two works were done by the same or different artists (why/why not)? Although they are different artists, what is similar about their works? Are they maybe from the same place?

Explain: left work is done by Ippitsusai Buncho, right is done by Hokusai. Different artists, same culture (Japan).

Ask the students: How are these two pieces different?

(this may bring up many things, some unrelated). Look specifically for the students to notice the colors, Hokusai's use of shading, and the use of perspective. These concepts might not be developed fully as an idea until later in the lesson.

Lead into next idea: Buncho's style is typical of Japanese art before Hokusai, this art had been in existence for a long time. Say- Let me tell you a story about Hokusai that will help explain what influenced him to work in a different style.



Tell story about how Hokusai was influenced by European art/trade. Show students Europe and Japan on the map.

I tell a story of Hokusai as a little boy going to the market. Europeans have already been trading in Japan for some time. While in the market Hokusai buys a small trinket from a European trader. Although the trinket is interesting to Hokusai- even more interesting is the paper it is wrapped in. It is the most beautiful picture he has ever seen. Relate this to life now by talking about how we often wrap fragile items in newspaper. Because prints in Europe were as common as newspaper they often used them to wrap their items for travel and trade. This is how Hokusai was first exposed to the art of the European.

It is helpful to assess how much the students already know- sometimes you will need to start anew, sometimes you can build upon prior knowledge.

Show slide and point out use of shading, perspective, foreground, middle-ground and background.



Ask: What are some similarities and differences between these three pieces.
Specifically look for students to notice things discussed in the previous slides (ie. Foreground/background, color choices, shading, style)



Ask the students to talk about what is going on in each work. What is the focal point? What is included in every picture?

Why does Hokusai paint his series of Mount Fuji?

It is thought that, according to tradition, Hokusai had planned on climbing Mt Fuji with his mother. However, she became ill and died before they could fulfill this dream. After his mother's death, Hokusai became obsessed with the mountain- some would say that painting it over and over again was healing for him.



Show this slide and remind students of the influence Europe had on Hokusai as an artist. Trade works both ways. Hokusai also had an influence on European artists. On this slide are examples of works by Mary Cassatt, Vincent Van Gogh, and Claude Monet- all influenced by Japanese printmaking.

V. Lesson 4: Labyrinth/Maze

- a. See PowerPoint presentation- "labyrinth.ppt"

Labyrinth/Maze

Objectives:

- 1) Students are able to distinguish between a unicursal and multicursal labyrinth.
- 2) Students are able to identify when a labyrinth could also be called a maze.
- 3) Students are able to list the reasons a labyrinth may have been built.
- 4) Students are able to describe a labyrinth either from legend or from history.
- 5) Students create a drawn labyrinth with correct mathematical proportions.
- 6) Students create a walk-through labyrinth as a group.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Reveal through their own understanding of how art mediums and techniques influence their creative decisions.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
Know about some cultural institutions and community opportunities for looking at original art and talking to visiting artists, to increase their understanding of art.
Give examples of adults who make their living in the arts profession.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain the visual and other sensory qualities found in a wide variety of art works.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures.
Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

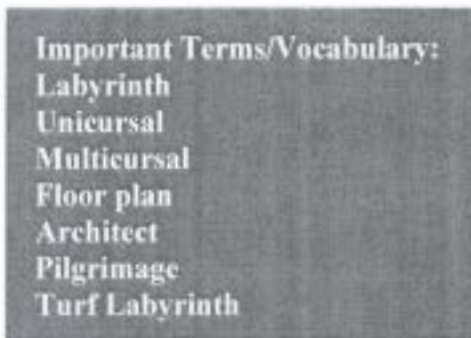
- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
Make appropriate and effective use of strategies to construct meaning from print.
Support inferences about information and ideas with reference to text features.
- Standard 2* Read a variety of literature of different genres.
Use inference and deduction to understand text.
Read aloud accurately and fluently, using phonics and context cues to determine pronunciation and meaning.

- Standard 3* Make decisions about the quality and dependability of texts and experiences based on some criteria.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Math, Science, Technology: 1.1, 3.3, 3.4, 3.5, 3.6, 3.7, 5.1, 5.2, 6.2, 6.6, 7.1, 7.2

Social Studies- 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 3.7, 5.4



Assessment: (see also the following assessment form)

Students should be assessed in three parts-

The first assessment is based on student participation and observations during the slideshow and in class.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) Is the student able to distinguish between a unicursal and multicursal labyrinth?
- 3) Is the student able to identify the cases in which a labyrinth could also be called a maze?
- 4) Is the student able to identify any of the reasons a labyrinth may have been built?
- 5) Is the student able to describe a labyrinth from legend or history?

The second assessment is based on the student's individual labyrinth project.

- 1) Does the student's labyrinth have the correct basic shape?
- 2) Does the student's labyrinth exhibit correct mathematical proportions?

The third assessment is based on the student's performance during the group labyrinth project.

- 1) Was the student able to work effectively in a group setting?
- 2) Were the students as a group successful in creating a walk-through labyrinth?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|--|---|--|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participation ... relevant? ... appropriate? | YES, participation was both relevant and appropriate. | | | NO, participation was either not relevant or not appropriate. |
| Is the student able to distinguish between a unicursal and multicursal labyrinth? | YES, the student is able to tell the difference. | | | NO, the student is not able to tell the difference. |
| Does the student use the terms labyrinth and maze appropriately? | YES, the student uses both terms appropriately. | | | NO, the student uses these terms interchangeably. |
| Is the student able to identify any of the reasons a labyrinth may have been built? | YES, the student is able to identify several reasons. | YES, the student is able to identify two reasons. | YES, the student is able to identify one reason. | NO, the student is not able to identify any reasons. |
| Is the student able to describe a labyrinth from legend or history? | YES, the student is able to describe more than two. | YES, the student is able to identify two labyrinths. | YES, the student is able to identify one labyrinth. | NO, the student is unable to describe a labyrinth. |
| Does the student's labyrinth have the correct basic shape? | YES, the shape of the student's labyrinth is correct. | | | NO, the shape of the student's labyrinth is incorrect. |
| Does the student's labyrinth exhibit correct mathematical proportions? | YES, the student's labyrinth is mathematically correct throughout. | YES, the student's labyrinth is at least 50% mathematically correct. | YES, the student's labyrinth is at least 25% mathematically correct. | NO, the student's labyrinth doesn't seem to have any mathematical correctness. |
| Was the student able to work effectively in a group setting? Did the student cooperate with others? Did the student take the lead when necessary? Did the student listen to and follow instructions? | YES, the student was able to do all three things. | YES, the student was able to do two out of three things. | YES, the student was able to do one out of the three things. | NO, the student was not able to do any of the things listed. |
| Was the class successful in creating a walk-through labyrinth? | YES | | | NO |
| Project Grade | | | | |

Materials/Tools:

Ruler and compass (one for each student)

Graph paper

Pencils

Material for constructing the labyrinth (whatever is plentiful) some ideas are:

Sticks, sawdust, stones, earth, bricks, mulch, sand, chalk, water based paint, masking tape, rope/ribbon, cloth, strings of lights.

Anticipatory Set:

At the beginning of day one pass out the maze handout (attached to this lesson). Allow students some time to complete the maze.

Instructional Procedure:

Day One and Two:

At the beginning of day one, pass out the maze handout (attached to this lesson). Allow students some time to complete the maze. The Powerpoint part of this lesson is extensive- taking into account multiple components and requiring some prep work. Allow two class periods to get through the complete presentation.

Begin on day two with a review of what was discussed last class. After the slideshow is finished end by reading an excerpt from Jerome K. Jerome's novel "Three Men in a Boat," the portion that talks about the Hampton Court Maze follows this lesson. In order to show students how confusing a maze can be when it is walked through, show a clip from the Harry Potter Movie, Goblet of Fire.

If time allows introduce the students to the project they will be working on (description follows).

Day Three:

Introduce the class to the project they will be working on. They will be drawing their own labyrinth. Explain that these will be models for a life-size walk-through model that they will build together as a group project. Familiarize the students with the tools they will be using- ruler, compass and graph paper. Show the students how to begin and the steps to complete the labyrinth (you will have to use your own judgment in order to determine how much the students will complete on their own). There is a basic labyrinth drawing instruction at the end of the slide show. Teach them how to carefully measure to make sure the paths in the labyrinth have a consistent width and how to use the compass to achieve even semicircles. This should take the whole class.

Day Four:

Give students time to work on their labyrinths if needed. When everyone has finished begin discussing the labyrinth that they will construct as a group. This will be planning day. Ask the students questions to get them thinking in depth about the details of the project.

Where should the labyrinth be located?

How big will it have to be in order to have paths big enough for students to walk through?

What should the walls be made out of? (show them some examples- I have included some at the end of the slide show)

How will we build it?

Write up a plan together so that work can be started the next class. If helpful, assign specific responsibilities to groups of 3-4 students (ex. the measurement experts, the supply team, leaders, etc.).

Day Five and beyond:

Spend the next couple of classes making the labyrinth.

Allow students time to walk through individually and talk about their experiences as a group.

Let them share their project with the other students in the school.

Further Reading:

www.labyrinthsociety.org This site has a “labyrinth finder”. It will show you where your nearest labyrinth is located. They also have instructions for creating the Chartres style labyrinth-
<http://www.labyrinthsociety.org/make-a-labyrinth>

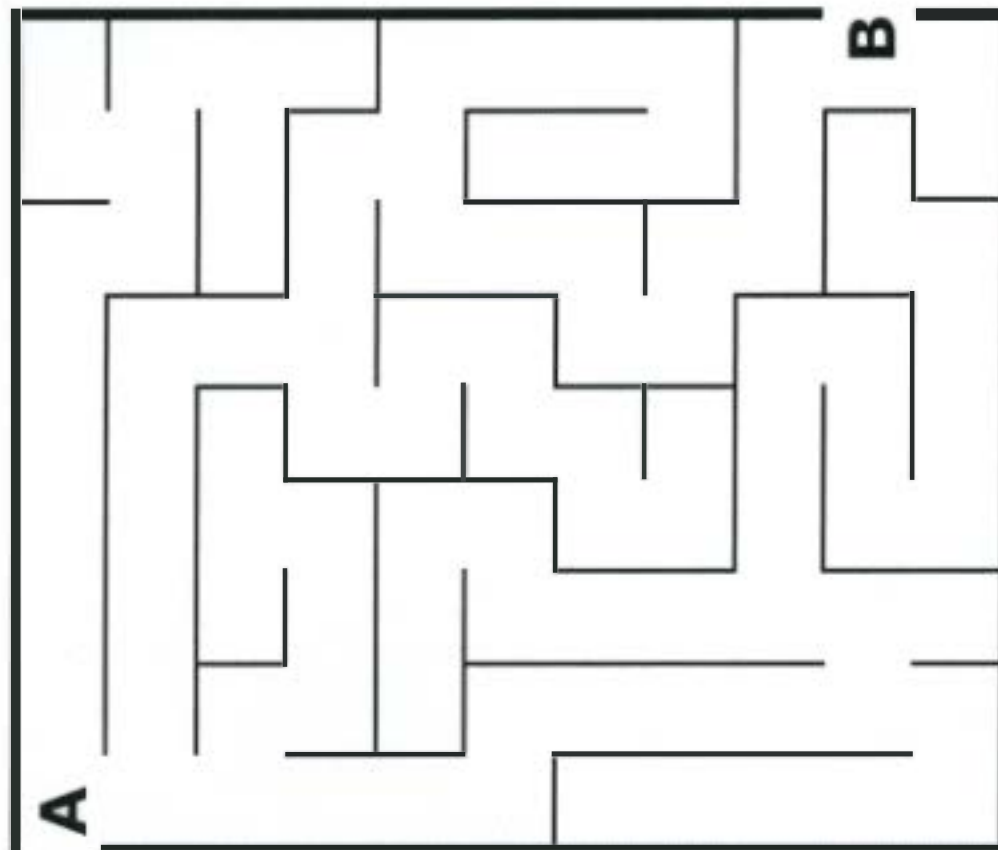
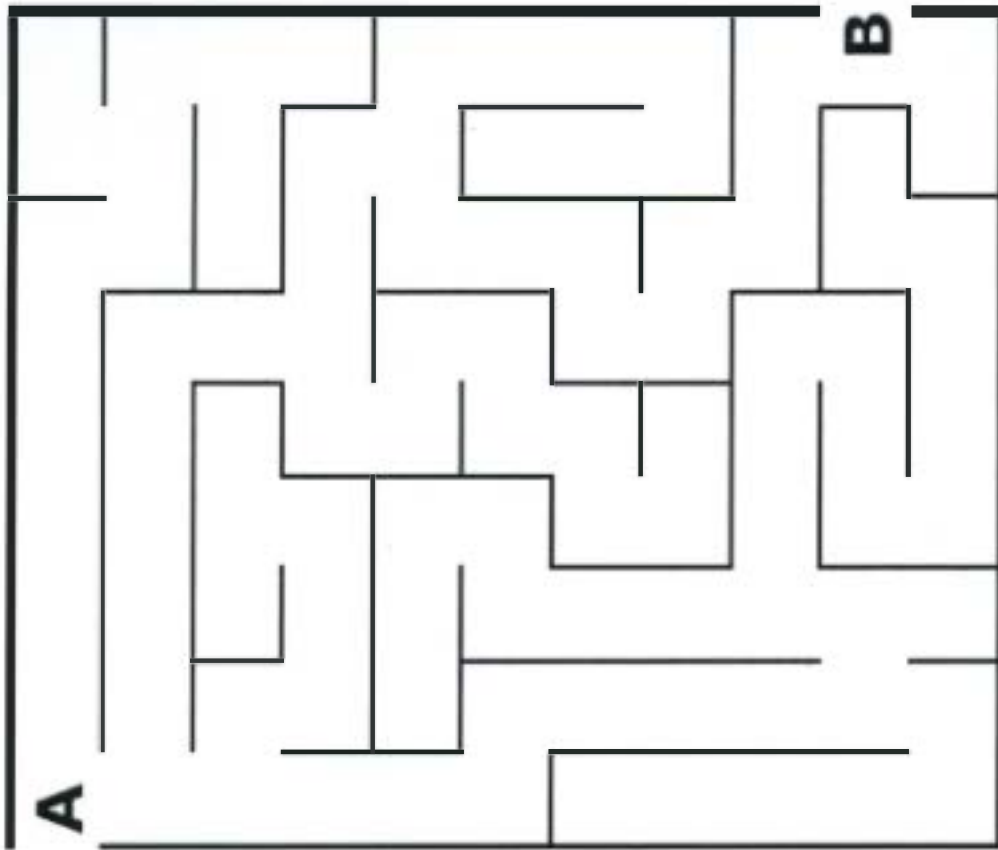
<http://www.labyrinthos.net/classical.htm> This is another great site that helps with the drawing steps to create a labyrinth.

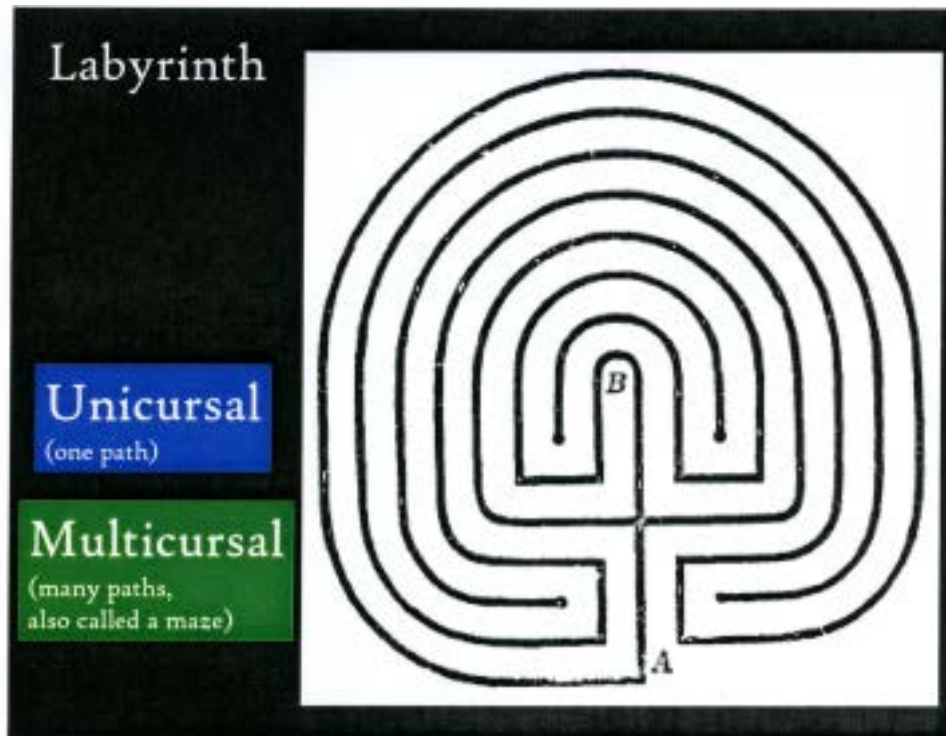
Doob, Penelope Reed. *The Idea of the Labyrinth: from Classical Antiquity through the Middle Ages*. Ithaca: Cornell University Press, 1990.

Matthews, W.H. *Mazes and Labyrinths: a general account of their history and development*. London: Longmans Green and Co, 1922.

Hawthorne, Nathaniel. *Tanglewood Tales*. 1853.

Jermone, Jerome K. *Three Men in a Boat*. 1889.





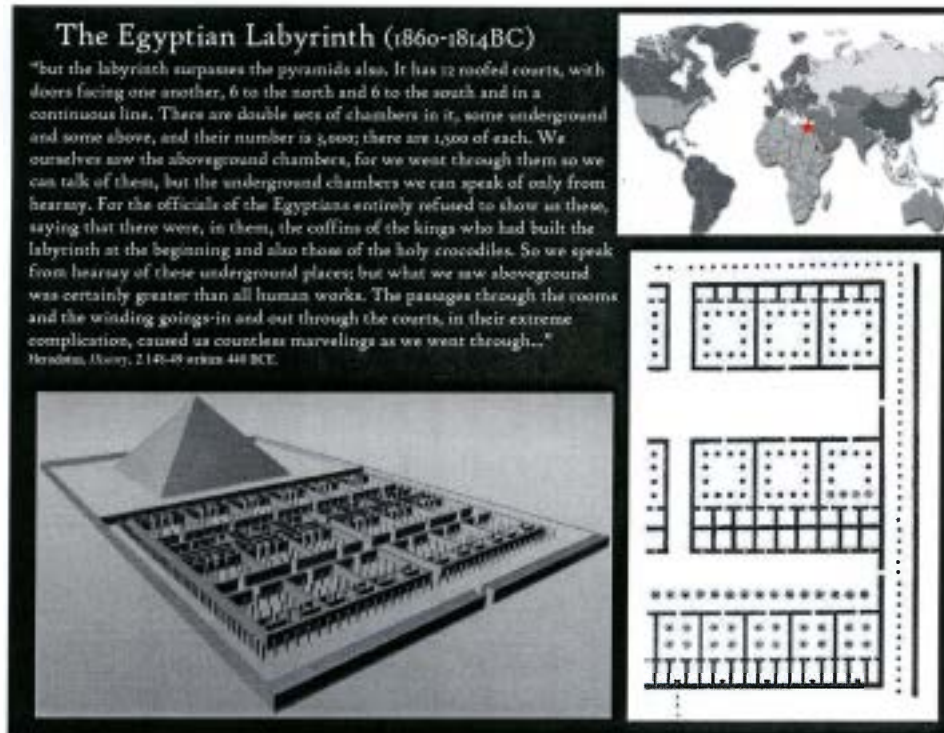
Give students a few minutes to complete the pass-out maze before beginning the slide-show. When ready, show the students the labyrinth pictured on the slide.

Ask the students, “Can you name some similarities and differences between the maze you just completed and the image shown here?”

Ask the students, “How many of you have heard the word labyrinth before?”

A labyrinth has two types of designs- unicursal and multicursal. [Note: this is a great time to talk about the roots of the words- uni meaning one and multi meaning many] A multicursal labyrinth is also called a maze. This type of labyrinth has one path that leads from the start to the finish, however, it allows for turns off of the path that will lead to a dead end. A unicursal labyrinth has one path that leads to a center and then the same path would be followed back out.

Ask the students, “What kind of labyrinth is shown on the screen?” Trace the path of the unicursal labyrinth with your finger to show students how it works.



The earliest known, and ancient literature argues the most fantastic of the labyrinths was built in Egypt during the rule of Amenemhat III. Amenemhat III ruled in Egypt from c.1860BC to c.1814BC. This labyrinth would have measured 300m by 244m (that is about the size of 9 football fields) and would be several stories high.

Have students read the quote from Herodotus aloud.

Ask the students, "Why do you think this labyrinth was built?"

The answer is...well, we don't know why it was built. Here are some possible reasons:

It was built to be a tomb for the kings of Egypt who are buried there.

It is a memorial to the king. (you may use the Lincoln memorial as an example of something similar, if the students are familiar with it).

It was built for amusement (like a modern day amusement park).

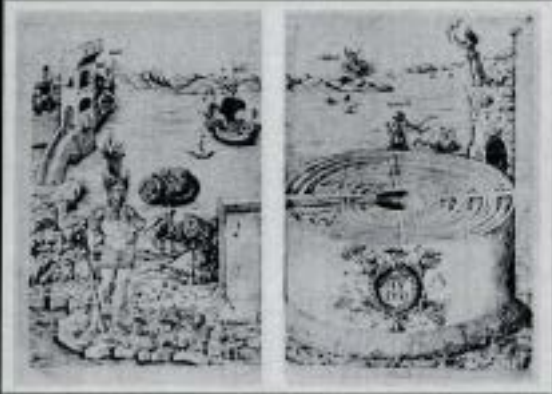

Next to the 3D reconstruction of the labyrinth is a floor plan of a portion of the labyrinth. You may need to instruct the students on how to read a floor plan. Also for assistance is a world map with a star where Egypt is located.

Translation of Herodotus taken from- <http://www.catchpenny.org/labyrin.html>

Petrie's Drawing- *The Labyrinth, Gerzeh, and Mazhuneh*, 1912, p. 29

3D reconstruction © Copyright 2000 [University College London](http://www.ucl.ac.uk)

Daedalus, celebrated for his skill in architecture, laid out the design, and confused the clues to direction, and led the eye into a tortuous maze, by the windings of alternating paths... Daedalus made the endless pathways of the maze, and was scarcely able to recover the entrance himself: the building was as deceptive as that.
Ovid's *Metamorphoses* Book VIII, written in the first century CE.

This creature, they say, was of double form, the upper parts of the body as far as the shoulders being those of a bull and the remaining parts those of a man. As a place in which to keep this monstrous thing Daedalus, the story goes, built a labyrinth, the passage-ways of which were so winding that those unfamiliar with them had difficulty in making their way out; in this labyrinth the Minotaur was maintained and here it devoured the seven youths and seven maidens which were sent to it from Athens, as we have already related.
Ovidius Naso, *Library of History* 4. 77. 1, written in the first century BCE.

The story of Theseus and the Minotaur is told in several accounts in ancient literature. You may choose any of these to tell the story of Theseus and the Minotaur [Note: you will probably need to leave out the part about how the minotaur was born and why he was locked in the labyrinth- use your judgment].

One of the best resources, although not ancient literature, is the story told by Nathaniel Hawthorne in "Tanglewood Tales". The full story is long so you should cut out a significant portion of the text, or ask the classroom teacher to have the students read it together in class before they come.

Introduce this labyrinth saying, "while the Egyptian labyrinth is considered the 'best', the labyrinth in Crete is the most well know, even today." Ask them questions about the story of Theseus and the Minotaur to get them thinking about the story (that they have presumably already read). If the students have not read the story, this would be a good time to read it aloud together.

Ask students to read the quotes on the slide aloud.

Ask the students "Who designed the labyrinth?"- answer, Daedalus (use this opportunity to tell the students about what an architect does).

Ask the students "Why was this labyrinth constructed?"- answer, to keep the horrible minotaur concealed.

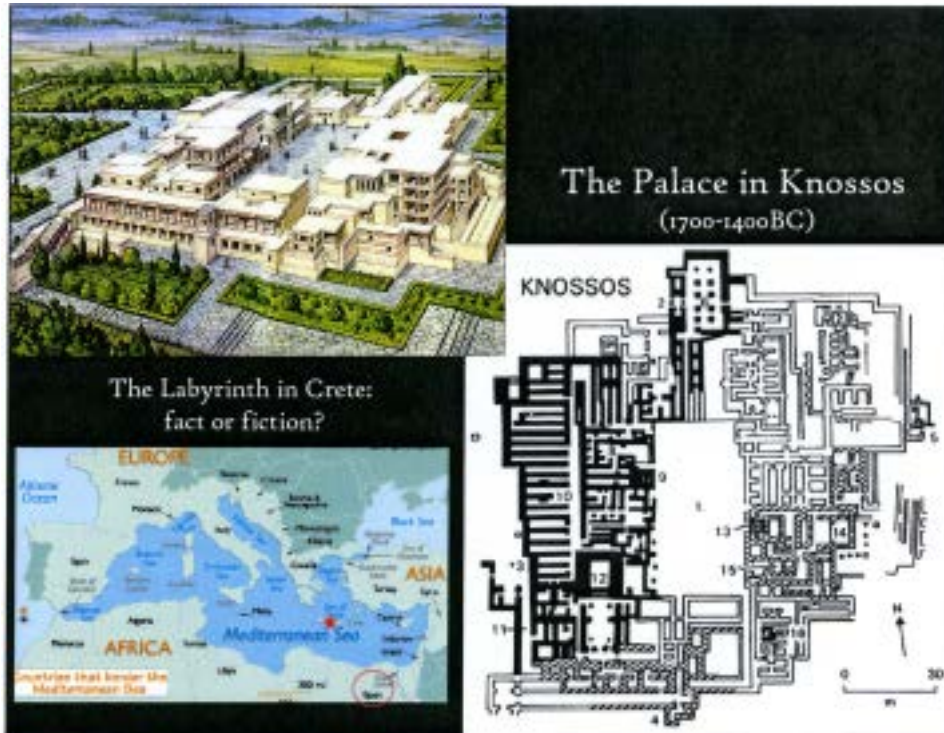
Ask the students "Do you think this labyrinth really existed?"

For a complete list of sources that cite the myth of the minotaur see-
<http://www.theoi.com/Ther/Minotauros.html>.

***Metamorphoses* Book VIII (A. S. Kline's Version)** This can be found online
<http://etext.virginia.edu/latin/ovid/trans/MetindexBCD.htm>

Silver didrachm of Knossos in Crete, ca. 425–ca. 360 BC; obverse: Minotaur running right

© Marie-Lan Nguyen / Wikimedia Commons



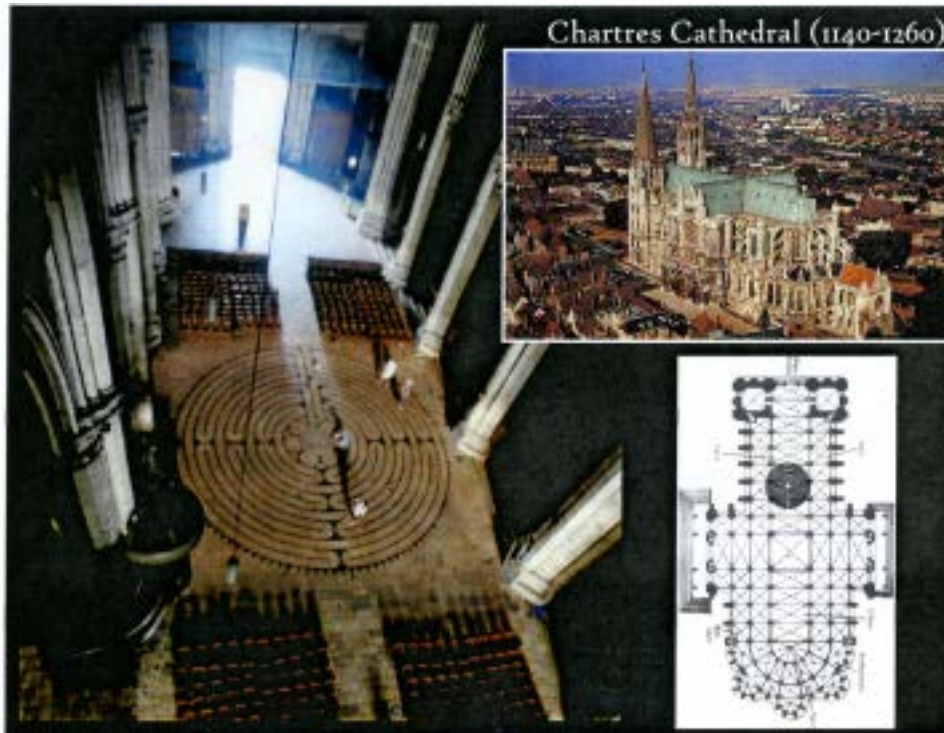
According to archaeologists, although Crete was close in location to the Egyptian labyrinth, there is no evidence that the labyrinth in Crete existed. The story of Theseus and the Minotaur is considered a myth (explain what a myth is if students are unfamiliar with this word). They do, however, point to the palace in the capital of Crete (Knossos) as evidence that a labyrinth-like building did exist.

There is a map showing where Crete is in relation to Egypt.

Have students look at the floor plan of the palace and ask them to point to areas that appear maze-like.

Why do you think that a palace would be built to resemble a labyrinth?

Again, we don't know for sure. Some possible reasons are to protect the King from intruders, or to showcase the skills of the architect.



Labyrinths in the ancient world were often associated with kings and palaces. New labyrinths were not built for several thousand years. When they started to be constructed again they were no longer associated with kings or palaces, but with churches.

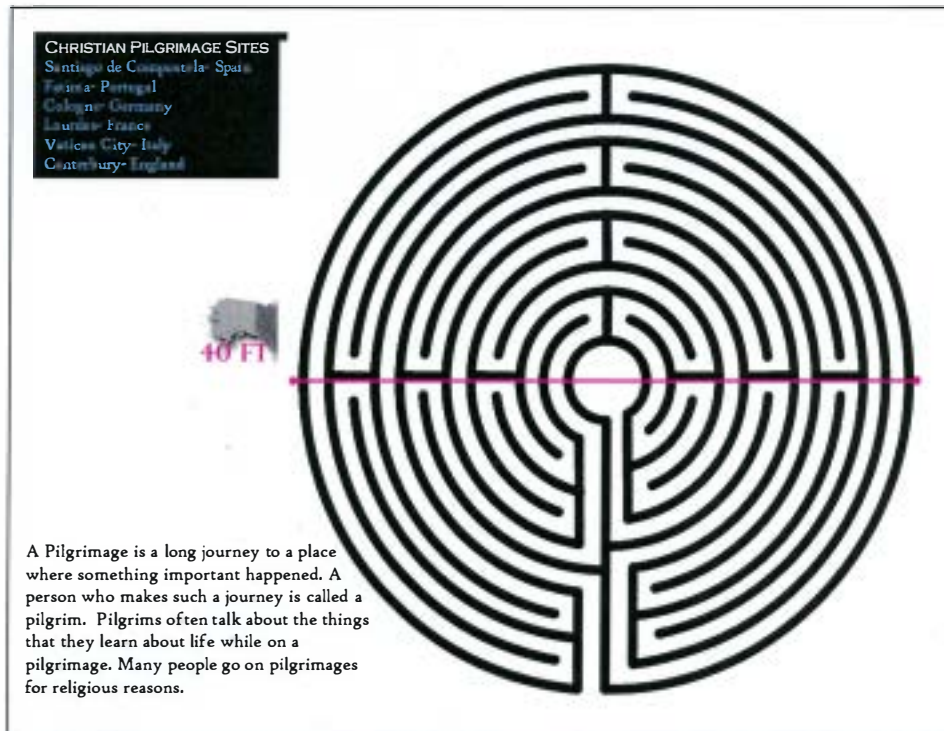
This slide shows images of the labyrinth built into the floor of Chartres Cathedral in France. This cathedral and labyrinth still exist today. Explain the images to the students, showing them the floor plan and where the labyrinth was located within the church. Click to show the larger labyrinth image and have a student come up to the screen to trace out the labyrinth.

Ask the students, “Is this labyrinth more or less complex than the labyrinth we first saw?” (the first slide)- answer, much more complex!

Ask the students, “Why do you think this labyrinth was put inside a church?” or “What do you think this labyrinth was used for?”

Floor plan and exterior view- <http://www.umehon.maine.edu/civilizations/112/chartres-b.htm>

Interior birdseye photo Copyright- [John E. Ridder](#)



Tell the students about pilgrimages. Show them the map and the pilgrimage sites that are important in different religions (below are listed the reasons these sites are important to each religion). Ask the students, “Does this information help us to understand how the labyrinth was used in Chartres Cathedral?” They may or may not have insight into this.

Explain how the labyrinth was used- In the time when the cathedral was built it was very popular for religious people to go on pilgrimages. However because not all people were physically able to make such a journey, this cathedral had a way for people to make the journey without having to travel more than 150 yards, within a 40 ft diameter space.

Christian Pilgrimage Sites:

- Cologne- Germany (shrine of the three magi)
- Lourdes- France (spring water from a cave is thought to have healing power)
- Vatican City- Italy (home to the Pope)
- Fatima- Portugal (the Virgin Mary appeared to three shepherd children)
- Canterbury- England (site of the murder of Thomas Becket)
- Santiago de Compostela- Spain (contains the remains of St James, a follower of Jesus)

Islamic Pilgrimage Sites:

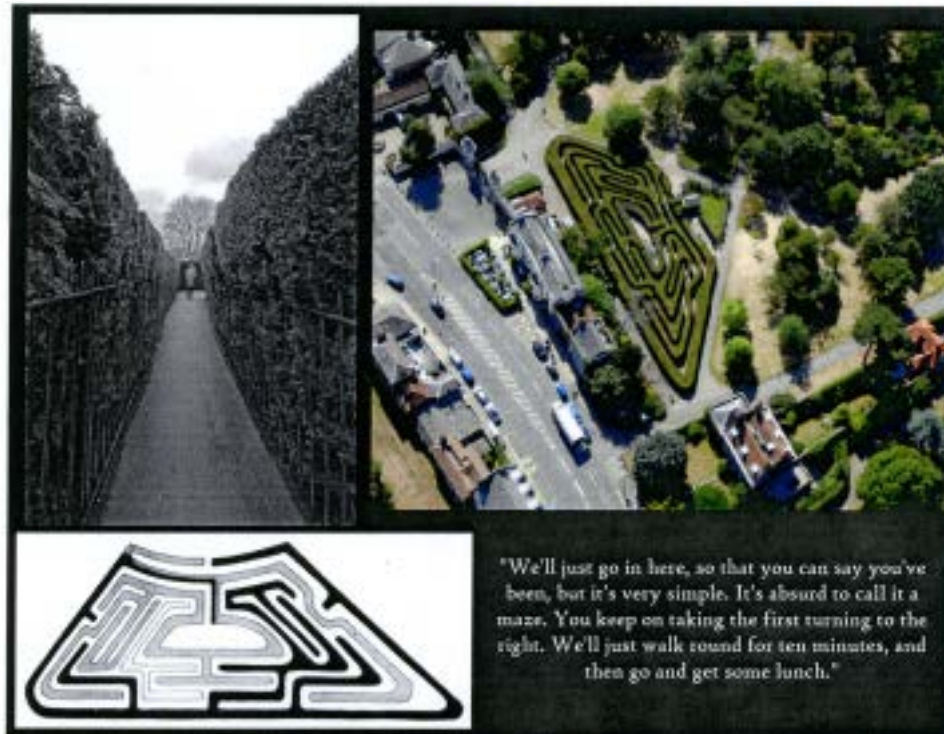
Mecca- The **Hajj** (Arabic: حج) is a pilgrimage to Mecca. It is the largest annual pilgrimage in the world.[1] It is the fifth pillar of Islam, an obligation that must be carried out at least once in their lifetime by every able-bodied Muslim who can afford to do so. It is a demonstration of the solidarity of the Muslim people, and their submission to Allah.[2]

Judaic Pilgrimage Sites:

Jerusalem is considered the holiest city in the Jewish faith. Jews pray facing Jerusalem

Buddhist Pilgrimage Sites:

- Lumbini: Buddha’s birthplace
- Bodhi Gaya: the place where Buddha achieved enlightenment
- Sarnath: where Buddha delivered his first teaching
- Kusinara: where Buddha died.



There is one more type of labyrinth that should be mentioned- that is the turf labyrinth. This is a labyrinth that is built of hedges (a row of closely planted shrubs or low-growing trees forming a fence or boundary) or grass boundaries. The boundary may be anywhere between 6" tall and over 6' tall.

Ask the students "Is the turf labyrinth shown on the slide a unicursal or multicursal labyrinth?" and "Why do you think this type of labyrinth was built?" (there are many theories, the most valid being that it was used for entertainment).

The labyrinth shown is located outside Hampton Court Palace, it was built between 1689 and 1695 for William of Orange. This maze is written about in 1889 in Jerome K. Jerome's novel *Three Men in a Boat* (an online version is located here <http://www.literaturecollection.com/a/jerome/three-men-boat/>). This novel has also been made into a movie by BBC.

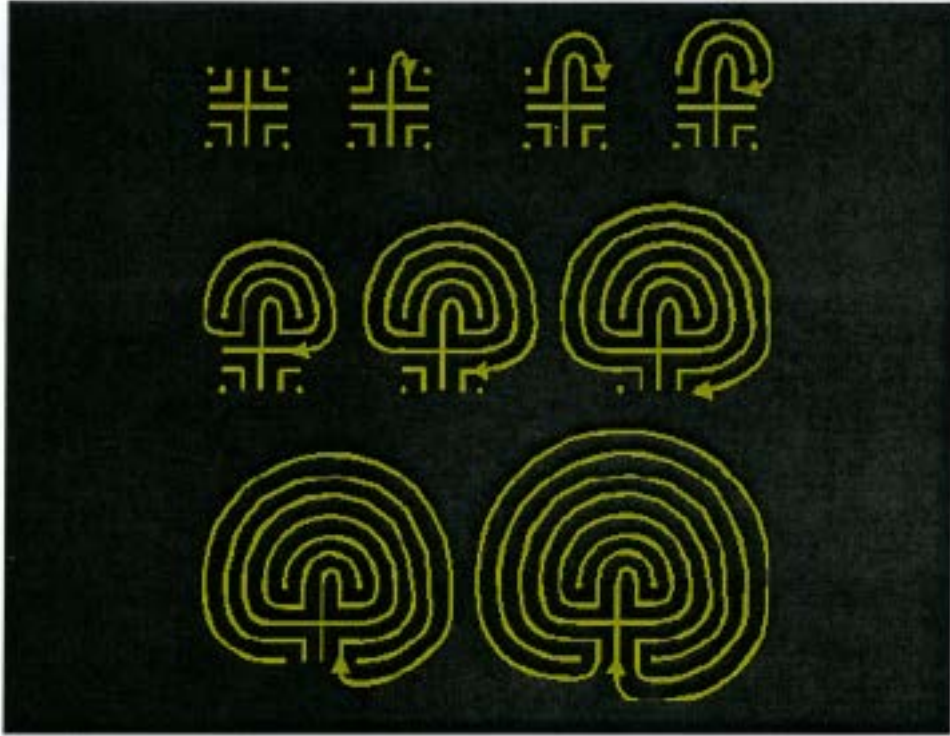
Read an excerpt from this passage or show a piece of the movie so that students get an idea of how a very simple looking maze can become very complex when it becomes a 3-Dimensional walk through.

Definition of hedge taken from www.thefreedictionary.com

View of person in a maze from <http://labyrinth.ilmito.org/2008/03/into-maze.html>

Birds-eye view copyright SurreyProperty.com LTD

Floor plan from http://www.math.nus.edu.sg/aslaksen/gem-projects/maa/Interview_with_the_Minotaur/rite.htm



Courtesy of www.labyrinthsociety.org



Pictures from:

http://www.remarc.com/craig/images/group_shotx1200.jpg

<http://www.smallfire.org/labyrinthimages/nottingham/nottview.jpg>

<http://www.oakcliffuu.com/labyrinth.shtml>

http://www.yournatureconnection.com/new_pics/LabatBCCC.jpg

<http://www.labyrinthos.net/classical.htm>

VI. Lesson 5: Found Art/ Louis Nevelson

- a. See PowerPoint presentation- "Nevelson.ppt"

Found Art Sculpture/ Louis Nevelson

Objectives:

- 1) Through the creation of their own found object sculpture, students recognize that an object can take on new meaning when put in a new context.
- 2) Students are able to discuss why artists began to make this type of art and can list at least one artist who employs this type of sculpture.
- 3) Students are able to create an aesthetically pleasing sculpture taking into account the principles of design.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Understand and use the elements and principles of art in order to communicate their ideas.
Reveal through their own understanding of how art mediums and techniques influence their creative decisions.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
Know about some cultural institutions and community opportunities for looking at original art and talking to visiting artists, to increase their understanding of art.
Give examples of adults who make their living in the arts profession.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain the visual and other sensory qualities found in a wide variety of art works.
- Standard 4* Look at and discuss a variety of art works and artifacts from diverse cultures of the United States and identify some distinguishing characteristics.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 2* Read a variety of literature of different genres.
Use inference and deduction to understand text.
Read aloud accurately and fluently, using phonics and context cues to determine pronunciation and meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Social Studies- 1.1, 1.2, 1.3, 1.4, 2.1, 2.2, 2.4

Important Terms/Vocabulary:

Sculpture

Found Object Art

Principles of Design (Rhythm, Balance, Proportion, Emphasis, Unity)

Assessment: (see also the following assessment form)

Students should be assessed in two parts-

The first assessment is based on student participation and observations during the slideshow and in class.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) Is the student able to identify at least one artist who creates found object art?
- 3) Is the student able to explain the difference between painting and sculpture?
- 4) Is the student able to identify any of the principles of design?

The second assessment is based on the student's found object sculpture.

- 1) Does the student recognize that an everyday object can take on new meaning when put in a new context?
- 2) Does the student's sculpture exhibit the principles of design?

Note: When using this assessment form, there are two types of assessment- a pass/fail or grade increments (the good and satisfactory columns are left blank when it is a pass/fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|---|---|--|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participation ... relevant? ... appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Can the student name at least one artist who creates found object art? | YES, the student is able to name more than one artist. | YES, the student is able to name one artist. | YES, the student is able to select the appropriate artist when given choices | NO, the student is not able to name an artist. |
| Is the student able to distinguish between painting and sculpture? | YES. The student is able to distinguish between the two. | | | NO. The student is not able to distinguish between the two. |
| Is the student able to identify any of the principles of design? | YES, the student is able to identify several principles. | YES, the student is able to identify two of the design principles. | YES, the student is able to identify one of the principles of design. | NO, the student is not able to identify any principles. |
| Does the student's sculpture exhibit the principles of design? | YES. The sculpture is designed with aesthetics in mind. | | | NO. The principles of design are not apparent in the student's sculpture. |
| Does the student recognize that an everyday object can take on new meaning when put it a new context? | YES. The student is able to see everyday objects beyond their original context and is able to apply this to his/her own work consistently. | YES. The student is able to see everyday objects beyond their original context and is able to apply this to his/her own work some of the time. | YES. The student is able to see everyday objects beyond their original context, however he/she is not able to apply this to his/her own work. | NO. The student is not able to see everyday objects beyond their original context. |
| Project Grade | | | | |

Materials/Resources:

Matboard- about 10" square (one for each student)

Elmers Glue...lots of it! (a small bottle to share between a pair of students as well as some to mix with the paint).

Black paint (and white if desired).

A wide assortment of found objects (ex. small scraps of wood, wooden beads, Styrofoam packaging buds, dried pasta, sticks, anything that can be painted)

Anticipatory Set:

Prepare a picture of yourself drawn over with Sharpie marker. Introduce the picture to the students and ask them something like "Do you think this is acceptable?"

They will probably think they are in trouble. After the reality has sunken in- tell the students that you did this to your own picture. Allow time to talk about how upset they would be if their own picture had been ruined like this. This will be helpful when they see the first slide.

Instructional Procedure:**Day One:**

Go through the Powerpoint presentation using the notes as a guide. This will probably take the whole class. You will need photocopies of the "Sky Cathedral" handout (at the end of this document) to pass around during the presentation.

Day Two:

Pass around handouts with the image of Louis Nevelson's sculpture- "Sky Cathedral." Write on the board, "I create places, not sculpture"¹- this is something that Louis Nevelson said in her lifetime. Ask the students, "What is sculpture?" and "What do you think Louis meant by this?" Allow time to review the important information from last class and check for understanding.

When an overview is complete, look at the Nevelson sculpture again- now go through the principles of design asking students if each of the principles is withheld in the sculpture²

When ready, pass out a square of matboard to each of the students. Tell them to write their name on this and then turn the board so that their name is against their workspace. Explain to the students that they will be making their own places using everyday objects. Brainstorm with the students asking them- "What kinds of places could we create?" Show them some examples of in-process sculptures and explain that colors are not important because in the end the whole thing will be painted (show them a completed sculpture).

¹ From Scholastic Art, Vol. 25, No. 5.

² You may find that you need to talk about the principles of design if students can't remember them or haven't had adequate exposure yet. For younger students, try to pick two or three of the more simple elements to talk about. When I did this lesson with first graders we talked about balance and symmetry.

Give each group of four students a bucket of objects to share and each pair of students a glue container. Allow students the rest of class to begin working on their sculptures.³ Any objects that are not glued should be returned to the buckets at the end of class for use next time. All sculptures should be placed on a flat surface to dry.

Day Three:

Review the project with the students. Ask them important questions to check for understanding such as: “Does anyone remember a name of an artist who created found-object art?”, “What is the difference between a painting and a sculpture?” or “Can anyone tell me about one of the principles of design?”

Students should collect their sculptures and resume work on gluing objects down. By the end of class all the students should be close to finishing with this. If a student finishes early, allow them to come up to the front of the room and tell the class about their “place”.

Day Four:

Ahead of time you should mix together black acrylic paint⁴ with Elmer’s glue until the paint becomes thick and heavy. This will help the paint to stick to all surfaces.

Begin class by talking about Nevelson’s sculptures. Ask students, “Why did Louis Nevelson paint her sculptures all in one color?”

Share this Louis Nevelson quote (or portions of it) with the students:

“Black contain[s] all color...It [is] an acceptance...Black is the most aristocratic color of all.”⁵

Ask the students to talk about what this means. You may use this as an opportunity to talk about another principle of design- unity.

Allow the rest of class time to spend painting their sculptures, or for students to finish gluing if needed. Encourage teamwork- if a student finishes gluing halfway into class, but they can’t paint until their sculpture is dry- ask them to help someone paint their sculpture, etc.

Day Five:

Allow time if needed for students to finish painting their sculptures- again, encourage teamwork. If this isn’t necessary, skip to day six.

³ You may notice a lot of chatting. If the talk is related to their “places” it will be very beneficial to the end result. Students will naturally want to talk about the place they have created.

⁴ If it seems reasonable you may give the students the choice between painting their sculptures black or white. It really doesn’t impact the lesson other than making more work for the teacher.

⁵ From The Sculpture of Louis Nevelson: Constructing a Legend. See reference in “Further Reading”

Day Six:

Use this class to share. Any student who is willing may come in front of the class and tell them about their “place”. Put a few (three or more) sculptures together in a group and ask the students “What kind of place do you see now?” Ask the individuals, “how has the meaning of your sculpture changed?”

Ask students to find sculptures that exhibit different principles of design. Allow them to talk about these principles in relation to their sculptures.

When the lesson is complete- assemble a bulletin board inside your school that displays all the sculptures as a group, or several groups. This will allow teachers to see and learn about art as well.

Further Reading:

“Louise Nevelson, Working with found objects” *Scholastic Art*, March 1995, 25:5.

(If you can get your hands on several copies of this it works great as a handout)

Nevelson, Louis, Brooke Kamin Rapaport, Arthur Coleman Danto. *The Sculpture of Louise Nevelson: Constructing a Legend*. NY, Jewish Museum and Yale University Press, 2007.

This is a very well done exhibit book. I was able to view most of it online through Google Scholar.



Louis Nevelson, "Sky Cathedral", 1958



You may hear laughing right away when you show this slide- ask the students “What do you think is funny about this picture?”

Follow with- “Do you recognize this picture?” “Have you seen one like it?” (click on the screen to help)

Most students should have had exposure to the Mona Lisa before. Help them with the title and artist if necessary. Help them to understand that the Mona Lisa is the most well known painting ever done. Ask students to point out ways that the picture on the right is different from the original painting. Explain that the piece on the right is a postcard of the Mona Lisa drawn on and presented as a piece of art.

Ask students, “How do you think the public reacted when they saw this hanging in an art gallery?” and “Why would another artist do something like this?” Keep asking questions looking for specific answers that point to the reality behind the work-

Marcel Duchamp’s work is targeting a specific response. He feels as though art in his time has become meaningless and he wants to redirect the public to look at things in a different way.

Pictures from- www.wikipedia.org

Marcel Duchamp’s L.H.O.O.Q., 1919 (center, right)

Leonardo DaVinci’s Mona Lisa, 1503-1507 (left)



This is another example of a piece of artwork (this time a sculpture- explain to the students that although this image is 2D, if they were to see it in person the sculpture would be 3D- talk about painting vs. sculpture) that is made up of objects that you may recognize. Have students look at this piece of art. Ask, “What do you see when you look at this sculpture?” Let them guide the discussion- they may want to talk about what the sculpture represents or what everyday objects make up the sculpture.

To help students figure out what everyday objects make up the sculpture click the slide, A hint will scroll across the page.

This artist, Pablo Picasso, is using a bicycle seat and handle bars to create a bull’s head.

Image from: <http://architecture.mit.edu>

Picasso’s Bull’s Head, 1943



Now have students look at this last sculpture. Introduce it as a piece of art saying- This sculpture was made by a woman named Louis Nevelson. Ask the students, “can you recognize anything in this picture of a sculpture?” “What do you think it is made out of?”

Tell a story about Louis Nevelson (use the one below or create your own)-

Even as a young girl Louis was a “city” girl. She loved to dress up and wear makeup and she always knew she would become an artist. She was still young when her family moved from Russia to the United States. While most families who moved from other countries to the United States moved to New York City or other large cities- Louis’ family moved to a small town in Maine. (click to show map and arrows, click again to hide it) Louis dreamed of moving to New York City someday. When she married Mr. Nevelson in the 1920s her wish came true. Louis was so in love with her new home in New York City. She would often wander the streets just looking at the beautiful tall buildings.

She began to collect things as she walked the streets, mostly pieces of scrap wood. Eventually Louis was inspired to create sculptures like the one shown on this slide entitled, “Sky Cathedral”.

I believe this sculpture was inspired by the walks that Louis took through the city- particularly by one building (which she most likely would have seen frequently), St Patrick’s Cathedral.

Click the slide to show the cathedral, pass out the “Sky Cathedral” handouts. Ask the students “do you see any similarities between the sculpture and the building?” Allow students to come up to the screen and point to similarities so that the class can share the experience.

Louis Nevelson, Sky Cathedral, 1958

Located at the Albright Knox Gallery in Buffalo, NY (Similar works by Louis Nevelson can be seen at MOMA and the Williams College Art Museum.)

Photo of St. Patrick’s Cathedral, NYC built by James Renwick Jr. from : www.planetware.com



Joan Steiner, "Look Alikes" (above and right).

People still do this type of artwork today. These are photos of an exhibit done by Joan Steiner. She is also an accomplished author, where she uses her found-object sculptures as illustrations in her books. A local library should have one or more of her books, entitled "Look-Alikes".

It is really fun for students (and adults!) to look at the pictures and try to find things. Give the students time to start looking and then allow as much time as needed for observations (they should be really into this).

Pictures from- <http://flickr.com/photos/shanl013/tags/lookalikes/>

VII. Lesson 6: Dutch Tile Lesson

- a. See PowerPoint presentation- “delftTile.ppt”

Dutch Tile Lesson

Objectives:

- 1) Students will be able to identify the function of tile (hygienic, ornamental, and educational) through a guided discussion.
- 2) After looking specifically at Dutch tile (Delft), students will be able to give a reason for the tiles being blue and white. They will demonstrate how Dutch tiles are stylistically different from tile made elsewhere by making their own Dutch tile using the elements talked about in class, corner motif, pattern, and central design.

NYS Visual Arts Learning Standards:

- Standard 1* Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
- Standard 2* Know about some cultural institutions and community opportunities for looking at original art and talking to visiting artists, to increase their understanding of art.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and the reasons for those responses.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures. Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 2* Read aloud accurately and fluently, using phonics and context cues to determine pronunciation and meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Social Studies: 1.1, 1.2, 1.4, 2.1, 2.2, 2.3, 2.4, 3.1, 4.1, 5.4
Math, Science, Technology: 1.2a, 1.2c, 3.5, 3.7, 5.5

Assessment: (see also the following assessment form)

Students should be assessed in two parts-

The first assessment is based on their participation and observations during class participation.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) Can the student verbally identify pattern, corner motif, and central design?
- 3) Does the student understand the concept of trade and the influence the Chinese had on the Netherlands?
- 4) As a group, can students identify the three functions of tile in class discussion?

The second assessment is based on the student's tile project.

- 1) Is there a recognizable pattern used, corner motif, and central design?
- 2) Did the student create a single design based on the four tiles fitting together or did they create a storyline in four individual tiles?
- 3) Is the student able to identify the way in which their own culture influenced the design on their tile?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|--|---|--|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participation relevant? ... appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Can the student identify... ... Pattern? ... Corner Motif? ... Central Design? | YES, the student can identify all three. | The student is able to identify two of the terms. | The student is able to identify one of the terms. | NO, the student is not able to identify any of the terms. |
| Does the student understand trade? | YES | | | NO |
| Can the student name the influence the Chinese had on Dutch ceramics? | YES | | | NO |
| Can students identify the functions of tile- Ornamental? Educational? Hygienic? | YES, the student can identify all three. | The student is able to identify two of the terms. | The student is able to identify one of the terms. | NO, the student is not able to identify any of the terms. |
| Does the student's tile design have... ... a recognizable pattern? ... a corner motif? ... a central design? | YES, the student's tile exhibits all three elements. | The student's tile exhibits two of the elements. | The student's tile exhibits one of the elements. | NO, the student's tile does not exhibit any of the elements. |
| Does the student's tile show... ... four individual designs that create a larger design when placed together? OR ... four tiles that together tell a story? | YES, explain: | | | NO |
| Can the student identify a personal cultural influence shown on their tile? | YES, explain: | | | NO |
| Project Grade | | | | |
| Comments | | | | |

Materials/Resources:

Several tiles and carpet samples
Clay, each student will get a softball sized chunk
Burlap 10"x10" pieces, enough for each student
½" thick wood slats
Rolling Pins
Plastic grocery bags
Push Pins and Thin Metal Rulers, or a Tile Cutter
Markers/ Crayons/ Colored Pencils
Carbon Paper
Assorted Colors of Underglaze (AMACO
velvet underglaze works well)
Clear Gloss Glaze
Kiln

Materials/Resources Provided:

Lesson Plan
Tile Template
Handouts with Corner Motifs and Delft Tile
Images
PowerPoint presentation with images.

Anticipatory Set:

Talk about tile. Ask questions like, "Do you have tile at home?", "Where do you have tile in your house?" or "Have you ever seen tile in a place other than a house/building?"

Instructional Procedure:

Day One- Hygienic Function of Tile

Part One: Discussion (this is designed for a large group)

Show a picture of a bathroom.

Look to get an answer to the question: Why do we use tile in the bathroom? Lead students to the answer with questions like: What other kinds of floors could we have in a bathroom? When a tile gets wet does it get ruined? Which would take longer to dry, a tile or a rug? Which is easier to clean if you spilled some juice on it, a tile or a rug? Think of your own house- what other places in your house (other than the floor) do you see tile?

A number of questions may be asked. The object is to lead the students to understand that tile was used by the Dutch because it was easy to clean. (It may be fun to have a few tiles and a piece of rug to help the students compare the two types of floor covering.)

Part Two: Rolling out the clay.

Give each student a ball of clay. Tell the students that this clay will eventually become their tiles, however it needs to be prepared first. Instruct students in how to pound and knead the clay between their hands to get rid of air bubbles. While everyone is pounding explain how clay turns into tiles. Use mud as an illustrative technique ex. Have you ever made things out of mud and then left them out to dry? What happens? Explain that the first people learned that if they placed dried "mudpies" in the fire they would turn harder and be able to resist liquids (you will have to make sure they understand what "resisting" liquids means- perhaps another example will help).

Now show students how to turn their balls of clay into clay slabs. Pat the clay down onto a piece of burlap. Place ½” thick sticks of wood on either side of the clay and use a rolling pin to roll the clay to the thickness of the ½” sticks. When all the students have completed rolling out an evenly thick slab, cover the slab with plastic if the next lesson will not be the following day.¹

Day Two- Ornamental/Educational Tile

Part One: Discussion (try to limit the discussion to 20 minutes or less).

Today you will talk to students about how tiles are used for decoration and education.

Show a Roman mosaic: (see slide show)

Show the students how many tiles work together to form a single picture. Where do you think a tile floor like this would be located? Why do you think someone wanted their tile to show a dog? If this were a complete picture of this famous Roman mosaic the viewer would see that it is located outside the front door (a doormat) with the words “Cave Canem” or ‘beware the dog’. The tile in this case would have told the visitor to watch out for the dog upon entrance. Help students to understand that tile can be used to send a message to or to educate the viewer.

Show some images of Delft tiles. Tell the students that all these tiles came from the same city in Holland. Ask them, what do all the tiles have in common? Why do you think the people in Holland only used blue to decorate their tiles?

Continue on through the slide show following the notes written under each slide.

Part two: Cutting the tile.

Use the last part of class to explain the next steps of the project. A tile cutter is highly recommended for the next step, however not necessary. If you don’t use a tile cutter you will need to show the students how to use the paper template (attached), push-pins, and a thin metal ruler to cut out four identically sized tiles. This would be difficult for young students.

If you are cutting the tiles for the students, use this time to let students practice drawing the design they want to use for their tiles. Use the attached template sheet to allow students to see what their design would look like on tiles. Post questions on the board to help them brainstorm ideas. Will you create four tiles that work together to create one image like the mosaic or will you create four individual tiles that tell a story? What image will be on each tile? Before the end of class, make sure all the students have inscribed their names on the back of each tile. Give these tiles a couple of weeks to dry and then bisque fire them.

Day Three: Designing Tiles.

Review the project and the things talked about in the last class. Encourage simple pictures, the simpler the easier it will be to transfer onto tile. Remind students that they are creating either a group of four tiles that works together to form one picture or four individual tiles that tell a story. You may want to require them to include a corner motif and central scene. This will help give some control to the outcome of the project. Have the students continue to work on drawing the design for their tiles. They should have a black and white outline first and then fill in the colored areas. I would recommend limiting the number of colors they can use. This greatly decreases the amount of work you, the teacher, will need to put into the lesson. Students should have a complete colored template for their four tiles by the end of class.

¹ Make extra tiles so that if there are any student tiles that don’t work out right they can be replaced by an extra “teacher-made” tile. These tiles will not be perfect- this is part of their beauty. If you are interested in a more “perfect” tile, you will have to use a slab roller and tile cutter and do all the work yourself.

Day Four: Transfer and Outline.

Cut sheets of carbon paper to fit each of the student's tiles. Have the students cut the tiles out of their template. Show students how to lay their template paper and carbon paper on their tiles and how to trace the outline of their design. Give students plenty of time to create this outline on their tiles, encourage them to work slowly and carefully. If time allows you may want students to start working on their tiles. Giving them one color at a time, allow them to carefully color in the carbon outlines they have created using underglazes. It is important for students to follow their template so that when they have to add coats to their underglazes, they know which colors to use. For most underglazes, three coats will provide an opaque glaze.

Day Five: Color.

Have students continue to color their tiles. If they are older students, it may be helpful if you give them a chart to work from indicating the colors they are using and a check off spot for each time they put on a coat of that color. With younger students you may just have to be very deliberate in helping them along. When the tiles are finished you will have to apply a clear glaze. The most efficient way to do this is to dip them, however you may save a lot of time by having the students brush on the clear glaze. When all the tiles are complete, fire them in the kiln.

Day Six: Share

I think it is worthwhile to allow students to share their pieces with each other and allow them to talk about the decisions they made. This may not fill an entire day, it is good to do in the middle of another lesson when you return the fired tiles to the students. This is also a good time to check for understanding. Ask questions regarding the things discussed in the first few days ie.. Why did the Dutch use blue and white to decorate their tiles?

For an additional related activity:

Have students read the attached article "Moving on Up" and complete the worksheet (this may be a good activity to give to a classroom teacher to have students complete outside of art class). This is a great pre-activity for a visit to the American Wing at the Metropolitan Museum of Art in New York City.

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| | |

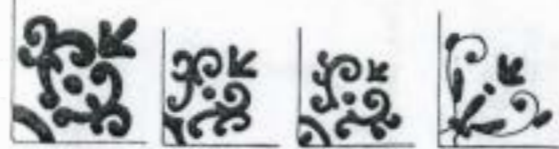
Corner Motif



33 Corner designs, partly derived from the fleur-de-lis, half actual size.



37 Corner designs, with Wan-Li decoration, and leaf decoration, half actual size.

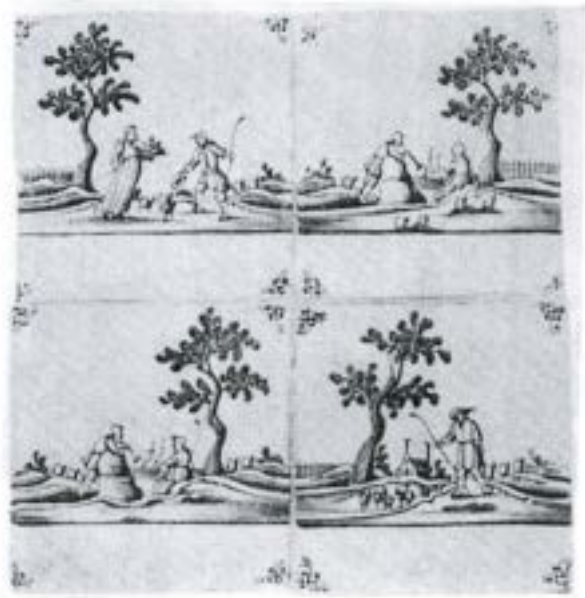


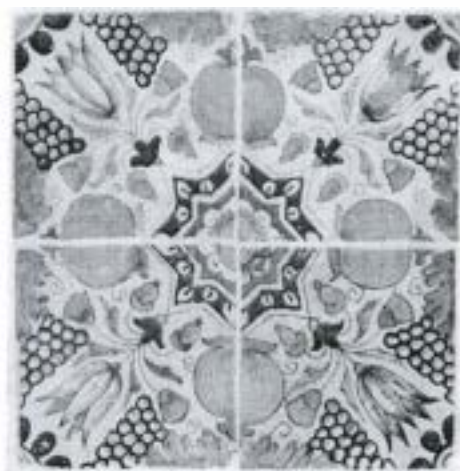
35 Corner designs, ox-head and related corner designs. Half actual size.



36 Corner designs, with so-called sign of the Holy Trinity, and "bees" or spiders' head. Half actual size.

† Images from Korf, pg.43-47.





1. Star and pomegranate tiles, first half 17th century.



3. Ornamental tiles, first half 17th century.



For Additional Information:

The New York State Museum has a number of Dutch Tiles in their collection. To arrange for a tour of this collection you may contact someone in the archaeology department.

http://www.nederlandstegelmuseum.nl/Museum/Geschiedenis_English.htm

www.AMACO.com

Korf, Dingeman. *Dutch Tiles*. New York: Universe Books, 1964.

For a look at delft tiles installed around a fireplace visit Cherry Hill Mansion in Albany, NY or Van Cortland Manor in Croton, NY.

MOVING ON UP

In 1750, Dutch colonist Daniel Winne bought land along the Vloman Kill river. He used the trees from his own yard to build his dream home. Two hundred and fifty years later that same house is being moved to the Metropolitan Museum of Art in New York City.

Prized Dutch Colonial house from Selkirk gets a new home in the Met



PHOTO: RABBIANS/ISTOCK

Dutch tiles picturing scenes from the Bible were found and placed around the reconstructed fireplace.



PHOTO: JEFFREY HARRIS/ISTOCK



DRAWING BY ARCHITECT TIMOTHY GALLAGHER

This house would have had a Dutch door.



COURTESY: JIM HOLEY/ISTOCK

The Met wants to reconstruct the Winne home in their American wing in order to show visitors what a home would have looked like in Winne's day. They have worked hard to get every detail of the house correct. They have even used microscopes to look at tiny pieces of the wall to try to determine what colors the original walls would have been.

When reconstructed at the Met, the Winne house will contain objects from the museum's collection that are from the time when Daniel Winne lived. The exhibit will open in 2006.

Pictures and background are taken from the original Times Union Article "Moving on Up" from June 26th, 2005. Text has been altered.

The fireplace photo is from: <http://www.jackysminiaturesanddreams.co.uk/fireplaces.php>

For more information about the Winne House see the following websites: <http://www.encyclopedia.com/doc/1G1-141477900.html>, <http://www.jmkelleyltd.com/articles/hudson1.html>

Name: _____

Date: _____

“MOVING ON UP” Worksheet

1. Where was the Winne house originally located?

2. Around what time was the Winne house was built?
 - a. 1895
 - b. 1980
 - c. 1750
 - d. 1400

3. Where can you see the Winne house now?

4. The Dutch tiles around the fireplace show pictures from what?
 - a. Alice in Wonderland
 - b. Dutch daily life
 - c. Nature
 - d. The Bible

5. Describe a Dutch door...



Show the students how many tiles work together to form a single picture. Where do you think a tile floor like this would be located? Why do you think someone wanted their tile to show a dog? If this were a complete picture of this famous Roman mosaic the viewer would see that it is located outside the front door (a doormat) with the words “Cave Canem” or ‘beware the dog’. The tile in this case would have told the visitor to watch out for the dog upon entrance. Help students to understand that tile can be used to send a message to or to educate the viewer.

Images from:

http://www.kzu.ch/fach/gg/feld/pompeji_2001/icons/cave_canem.jpg

http://www.culturacampania.rai.it/site/_contentimages/00044300/44314_000010.jpg



People living in the Netherlands are called Dutch people. Does anyone have any Dutch relatives? The Dutch loved using tile to decorate their houses. These people were very concerned about cleanliness and thought that tile was the easiest material to clean. Note the broom in the foreground. Ask the students: Can you point out all the different types of tile in this painting?

Images:

View of an Interior, *Samuel Van Hoogstraten* (1654-1662)

source- <http://mucri.univ-parisl.fr/mucri10/IMG/cache-273x410/arton13-273x410.jpg>

Also, Jan Steen, *Merry Family*, 1668, owner: rijks mueum

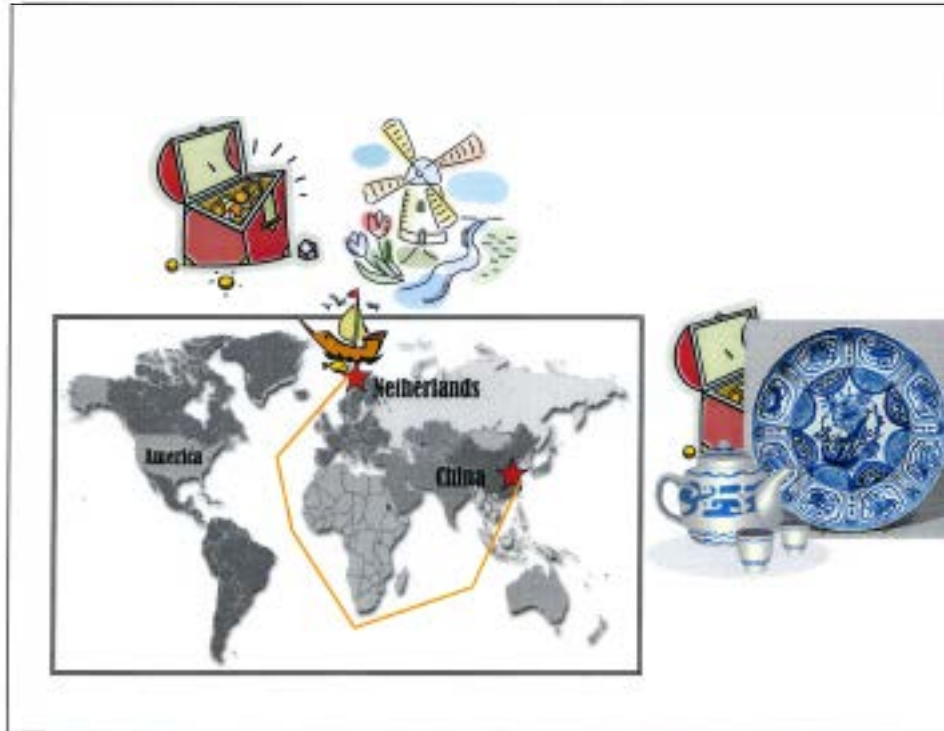


Tell the students that these were a special type of tile that the Dutch loved to use. Ask them, what do all the tiles have in common? Why do you think the people in the Netherlands only used blue to decorate these special tiles? (this question should be answered in the next slide)

Note: there are four tiles which represent children playing games. The games they are playing are (beginning with the top left and going clockwise) jumping rope, wrestling, swinging, and knucklebones. *For more information on Knucklebones see the article written by Elsie G. Budd and Leslie F. Newman entitled "'Knuckle-Bones'. An Old Game of Skill" written in Folklore, March 1941.*

Images from:

http://www.delfter-fliese.de/english_motive.htm



Because the Dutch were very interested in the world around them, they began to explore other areas of the world by boat. One day they landed in the distant land of China. The Chinese people were making very beautiful dishes out of a very fine white clay with blue decoration. The Dutch purchased some of these dishes from the Chinese and brought them back to the Netherlands. The Dutch fell in love with the designs and color of the dishes from China. The Dutch began to make their own versions of the dishes using the blue and white decoration. This is when they first started making blue and white tiles.

Note: It was in the year 1602 that the first piece of blue Chinese porcelain entered the Netherlands.

Another Note: Students may ask, and it's good to know for your own knowledge, the reason that Chinese porcelain was blue and white. Because of the very high temperatures that the porcelain needed to be fired at, only a cobalt or copper underglaze would be retained. Copper would have created a greenish hue- the Chinese preferred the cobalt in this time period. Although the Dutch were able to make ceramics with a blue decoration on white background, they were considered inferior to the Chinese ceramic. The Dutch were unable to produce porcelain (a very fine ceramic) because they lacked the technology to do so. The first European hard-paste porcelain was created in 1710 in the Meissen Factory. For more information see: <http://www.meissen.de/index.php?id=151&lang=1>

Image of WanLi plate from:

http://www.virtualmuseum.info/collections/themes/blue_and_white/images/pm325079_d01_300h250w.jpg



The Dutch found that they could do many different things with these tiles. They could be used along the floor, around the fireplace, or even as a wallpaper. They could use several tiles to create one picture (similar to the Roman mosaic and the multi-colored tile in the above picture) or they could use scenes on individual tiles to tell a story like is done on the fireplace.

Images from:

<http://www.nederlandstegelmuseum.nl/>

<http://www.rijksmuseum.nl/>



They could use several tiles to create one picture (similar to the Roman mosaic and the multi-colored tile in the above picture) or they could use scenes on individual tiles to tell a story like is done on the fireplace. Talk about the tile on the top right. Does anyone know what story this scene is from? It is the scene from the Bible where Pharoah's daughter finds Moses in the basket on the water. The students may know this story from the animated movie "Prince of Egypt".

Along the bottom are examples of delft tiles that were found in the ground in New York City during an archaeological dig. Why would we find Dutch tiles in the United States? (You may decide to use this opportunity to talk about archaeology and the settlement of the Dutch on Manhattan Island as a result of the exploration of Henry Hudson in 1609.)

Images from:

<http://geoffreygoldberg.com/Netherlands/tile.gif>

http://www.delfter-fliese.de/biblische_szenen.htm

Corner Motif: a design that repeats in each of the four corners of a tile.

Pattern: A picture or part of a picture that appears more than once, is repeated.

Central Scene: the picture in the center of the tile.



Use this slide to talk about the design elements of a Delft Tile. Students should be able to learn what a corner motif is and should be able to exhibit this learning by including a corner motif on their own tiles. They should also understand that a corner motif is a type of pattern. In the lesson plan there are some hand outs that have examples of Delft tiles that can be used to inspire the students. Talk about what kind of content the central scene could have.

VIII. Lesson 7: Photography

- a. See PowerPoint presentation- "Photography.ppt"

Photography

Objectives:

- 1) Students will be able to describe the basic principle of the camera obscura (when in a dark room an image coming through a hole in one wall will be inversely reflected on the opposite wall).
- 2) Students will be able to identify the differences between the camera obscura/daguerreotype and the modern camera.
- 3) Students will construct their own camera obscura.
- 4) Students will create images using their camera obscura.
- 5) After participating in class discussion and experimenting with their own camera obscura students will be able to discuss the uses of the camera in a brief journal entry.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures. Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Ask specific questions to clarify and extend meaning.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Math, Science, Technology: 1.1, 5.1, 5.2, 5.5, 5.6, 5.7, 7.2

Social Studies: 1.2a, 1.2c, 2.1, 2.2, 2.3, 2.4, 5.4

Assessment: (see also the following assessment form)

Students should be assessed in three parts-

The first assessment is based on their participation and observations during class participation.

- 1) Was the student an active observer in class? Did they participate in discussion?
- 2) As a class, can the students distinguish between the camera obscura, the daguerreotype and the modern camera?

The second assessment is based on the team's camera obscura project.

- 1) Was the team's camera obscura constructed properly?
- 2) As a part of a team, was the student able to create understandable images using their camera?
- 3) As a part of a team, did the student create an appropriate image for each category given?

The third assessment is based on the student's journal.

- 1) Does the student describe their own experience using the camera obscura?
- 2) Does the student identify their opinion on what the camera should and shouldn't be used for?

Note: When using this assessment form, there are two types of assessment- a pass or fail or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|---|--|---|--|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participationrelevant? ...appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| As a class, can the students list the differences between the camera obscura, daguerreotype, and modern day camera? | YES, the students find many differences. | The students are able to list two - three differences. | The students are able to identify one difference. | NO, the students do not identify any differences. |
| Is the team's camera obscura constructed correctly? | YES, the camera exhibits great skill and attention to details. | YES, the camera is constructed correctly. | YES, the camera is constructed correctly after a few self-made adjustments. | YES, the camera is constructed correctly with help from the instructor. |
| Could the team capture an image of... ...a landscape? ...a person? ...other? | YES, the student fulfills all three categories. | The student fulfills two of three categories. | The student fulfills one of the categories. | NO, the student does not fulfill any of the categories. |
| Were the images... ...understandable? ...original? ...creative? | YES, the student's images exhibit all three elements. | The student's images exhibit two of the elements. | The student's images exhibit one of the elements. | NO, the student's images do not exhibit any of the elements. |
| Is the student able to construct an opinion on when the camera should and shouldn't be used? | YES, explain: | | | NO |
| Is the student able to describe their experience using the camera obscura? | YES, explain: | | | NO |
| Project Grade | | | | |
| Comments | | | | |

Materials/Resources:

Black acrylic paint.

Thick paint brushes.

Thick black plastic cut into 9"x9" pieces. One piece per team of 2.

Thick black plastic cut into 5"x5" pieces. One piece per team of 2.

Empty oatmeal/cornmeal/grits cylinders (the larger size is better). One container per team of 2.

Straight Pin

Small pieces aluminum foil (4"x4"). One piece per team of 2.

A good supply of Sun-prints paper¹ cut into 5"x7" pieces. Four pieces per team of 2.

Scissors

Black electrical tape

Two to three trays with warm water.

Pre-cut mat frames² in white or assorted colors. One frame per student.

Scotch or masking tape.

A journal for each student to write in.

A large bulletin board.

Anticipatory Set:

Collect a set of cameras, new and old, to show the students. Have a show and tell beginning with the newest (a digital camera) and then progressing chronologically. Ask them questions like: have you ever seen a camera like this? Does anyone own a camera like this? How would you use a camera like this?

Explain to the students that they will be learning about and making a type of camera used a long time ago.

Instructional Procedure:

Class One: The Camera Obscura

Begin going through the PowerPoint slideshow using the notes as a guide. Stop after the Augustine Herman slide. Go back to the diagram of the camera obscura (slide 3). Explain that we will be making our own version of this device.

Divide the class into teams of two. Give each team an empty oatmeal container and two large paint brushes. Distribute black paint for the students to share. Demonstrate the procedure for painting the **inside** of the oatmeal container. Allow the students to paint their containers stressing that there shouldn't be any unpainted surface within the container. Set these to dry till next class. If time allows review some of the information learned in the beginning of class.

¹ For more information on Sunprints and for purchasing information see- <http://www.laurencehallofscience.org/sunprint/index.html>

"Ultraviolet light, invisible to our eyes, is a higher energy type of light than the visible light that we ordinarily see. Sunprint paper absorbs ultraviolet light. Ultraviolet light causes a chemical change in the paper, which changes the color from blue to white. Then energy from ultraviolet light is what causes the chemical make-up of the paper to change. Water reacts with the unexposed Sunprint paper (paper covered by an object) changing the color to white.

Opaque objects that do not allow any UV light to pass will result in white areas on the Sunprint paper. Objects that allow UV light to pass will result in dark blue areas. Translucent objects, like a leaf or a crystal, will allow some UV light to pass, causing the paper to partially react and turn blue." From: http://ed.fnal.gov/trc_new/sciencelines_online/sp_smr97/activities.html

² These are an item that may be purchased and used over and over again. www.goldenstateart.com has good prices.

Class Two: Making the Camera

Almost the entirety of this class will be spent making the camera. Begin by talking again about the camera obscura. Ask the students questions in order to recall the information they learned last time. This is a good opportunity to test their understanding.

Students will finish creating their cameras today, but will not use them until next time. Follow the instructions below in order to complete the project. Use the last slide in the presentation for help with this (slide 9).

1. Cut about a 3"x3" hole towards the bottom of the container. (there is no exact location for this hole, however it should be towards the bottom so that it is easier to place the Sunprint paper.
2. Make a hole in the aluminum foil with a straight pin.
3. Place this over the 3"x3" hole.
4. Tape the tinfoil onto the oatmeal container with black electrical tape making sure there are no spaces for light to get in.

The process is continued in the next class.

Class Three: Daguerreotype

Begin this class with the PowerPoint presentation. This may be a good opportunity to run through the slides from the previous class and review what was talked about. This will be a good introduction to today's slides which will begin with slide 6. Follow the notes written below each slide. Go through slide 8. After the slideshow teach the students how to use their cameras.³ (you may refer to slide 9 again and also 10)

5. Go into a dark room.
6. Give each team 4 pieces of sun-print paper and have them write their names (very small!) in the corner.
7. Tack the sun-print paper (with scotch tape) inside the empty oatmeal container opposite the pinhole.
8. Cover the open side (top) of the oatmeal container with thick black plastic and place the oatmeal container lid on top.
9. Using scotch tape, tack a small piece of black plastic over the pinhole area of the camera.
10. Go outside!
11. Find a good spot for a landscape image and face the pinhole in the direction of the image.
12. Lift the plastic flap covering the pinhole and leave the flap up for 5-10 minutes. You may want to provide stopwatches for the students to use for this step.
13. After the time is elapsed have students close the plastic flaps and bring the cameras back into the dark room.
14. Have students carefully remove their prints from the camera and rinse the prints in warm water.
15. Lay the prints flat to dry.

Do a practice run with plain paper, just so the students can get a feel for the process. Next, have students load their cameras inside and then travel outdoors to take a picture as a class. All the

³ Upon finishing the camera in class two the cameras will be loaded with sunprint paper

students should have the same or a similar image. This is the time to iron out any problems the students are having using their camera. The next section will be done independently. After the students have created their first print have them sit down and reflect on the experience. Ask questions like- Were you able to create an image with your camera? If not, what do you think went wrong? Do you think there are any improvements you could make for next class? Allow time for students to reflect aloud as well as in their journals.

Class Four:

Help students who need to make adjustments to their camera. For the rest of the students- Give each group four pieces of sun-print paper. Explain that they will need to capture at least two images on their own. The required images are:

1. A landscape (the test print may be used for this).
2. A person.

This is a great time to encourage creativity.

Allow time at the end of class for students to talk about making images and to write in their journals. Outline some ideas on the board to help them write in their journals if necessary.

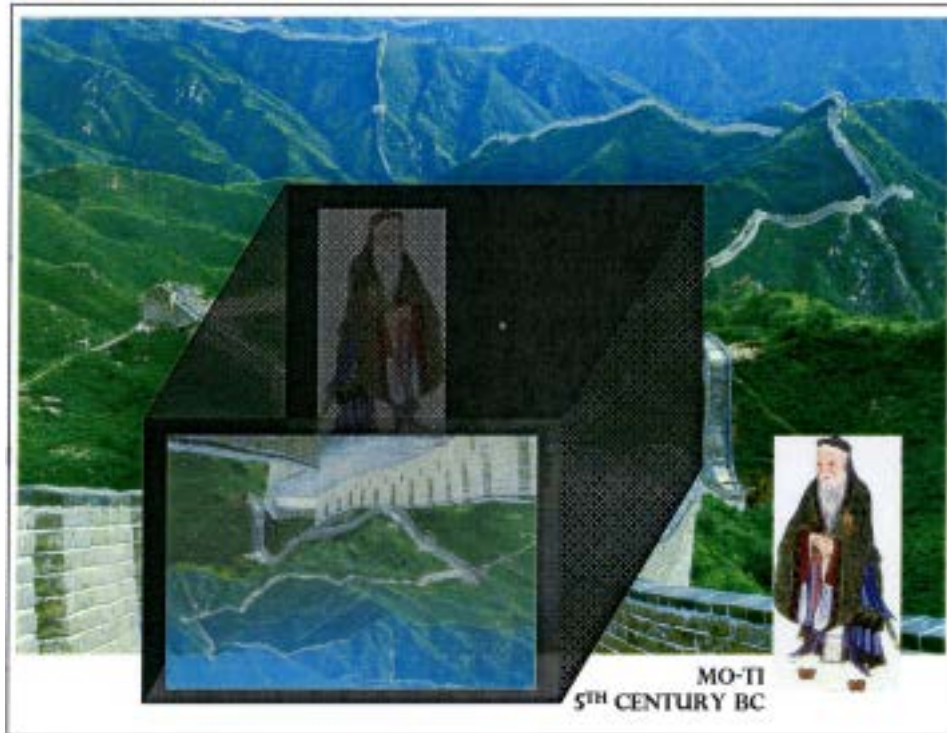
Class Five:

Students should continue making images with their cameras if they need time to do so. Those who have finished making images can work on creating displays for their pictures. Pull out your precut mat frames and give the students a frame (if there are multiple colors the students may like to choose their own). Tell them they will be choosing their favorite picture to frame in their mats (these do not need to be one of their required images, but should be their personal favorite). Show them how to frame their picture using a mat. Explain that the edges of their picture will need to be trimmed with scissors and then the picture should be taped to the back of the frame. By the end of class all the students should have a print framed.

Class Six:

Help the students to display their framed works on a bulletin board. Use this class to allow students to view the work of their peers. They should also have the other prints they made out to look at. While the students are looking at the artwork ask them questions like, which picture is your favorite and why?

Give the students some journal paper and ask them to write a short entry about the experience. Give the students guidelines for their writing. Have them answer questions like: Describe your experience using the camera you made, was it easy to use? How did the images you created turn out? Do you like them? Talk about some uses of a camera obscura. Describe your favorite picture that you made, what is the subject, why is it your favorite?



“In China, Mo Ti records the principle idea of the camera: that reflected light rays of an illuminated object passing through a small hole in a dark enclosure result in an inverted but exact image of the object.”

Note: Mo Ti is the first to record this *principle*, although the actual device (camera obscura) was not documented until later.

A disclaimer for teachers: The Great Wall of China as seen in the image used above would not be what Mo Ti would have actually seen. The wall, while in existence in the 5th Century would have consisted of sections dividing separate states and probably cannot be seen today. Many of these were later combined to form what we see today as The Great Wall.

“The Chinese were already familiar with the techniques of wall-building by the time of the Spring and Autumn Period, which began around 8th century BC. During the Warring States Period from 5th century BC to 221 BC, the states of Qi, Yan and Zhao all constructed extensive fortifications to defend their own borders. Built to withstand the attack of small arms such as swords and spears, these walls were mostly made by stamping earth and gravel between board frames. . . While some portions, north of Beijing and near tourist centers, have been preserved and even reconstructed, in many locations the Wall is in disrepair, serving as a playground for some villages and a source of stones to rebuild houses and roads. Sections of the Wall are also prone to graffiti and vandalism. Parts have been destroyed because the Wall is in the way of construction sites. No comprehensive survey of the wall has been carried out so it is not possible to say how much of the wall survives, especially in remote areas. “

<http://www.insecula.com/us/musee/M0269.html>

Text taken from: http://www.usnews.com/usnews/culture/articles/010709/archive_037918.htm

Images from:

<http://www.cnd.org/Scenery/Top-10/GreatWall1.jpg>

<http://www.gutenberg.org/files/15250/15250-h/img/p000.jpg> (this is actually an image of Confucius)

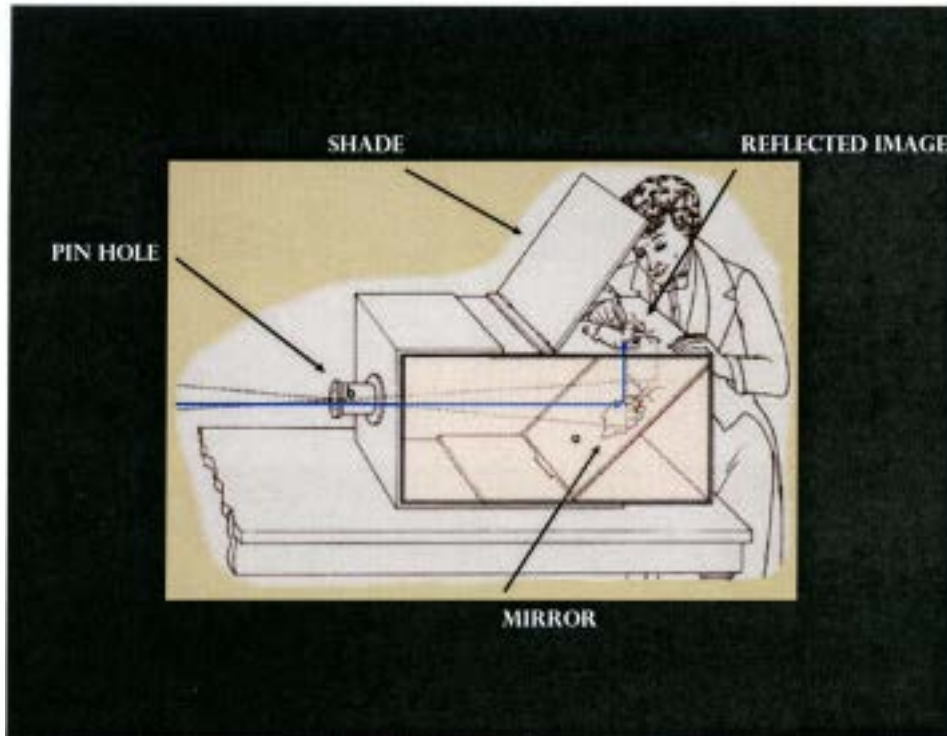


Arab Scholar Alhazen described a working model of the camera obscura (Latin for dark room) in his writings, "Theory of Optics". He used this device in his experiments that studied light and the eyes. His experiments involved five lanterns outside a dark room with a small hole.

Images from:

www.lumen.nu/.../uploads/2006/12/alhazen.jpg

tiger.uic.edu/.../phil429/images/alhazen.jpg



This is a picture of the camera obscura which describes how it works.

The reverse image passes through the pinhole to the mirror. The mirror then turns the image right side up and reflects it onto a plate of glass. With a shade the viewer is able to view the image clearly. Many artists would then trace the image onto paper.

A typical camera obscura at the beginning of the 19th Century, somewhat larger than the replica shown above, incorporating a mirror (a), which reflects the image from the lens (b) onto a glass plate (c) which holds a sheet of paper on which the image is being traced. The double interlocking box enables precise focusing.

After Brian Coe, *Cameras: From Daguerrotypes to Instant Pictures* (Göteborg, Sweden: Nordbok, New York: Crown Press, 1975), p. 2.

Images and Text From:

From: <http://www.lewis-clark.org/content/content-article.asp?ArticleID=1488>



In the 17th Century Artists were using the camera obscura to help them with their drawing and painting. Although totally acceptable at the time, this is now a very controversial activity. Why do you think that people today might look down on artists who used a camera obscura?

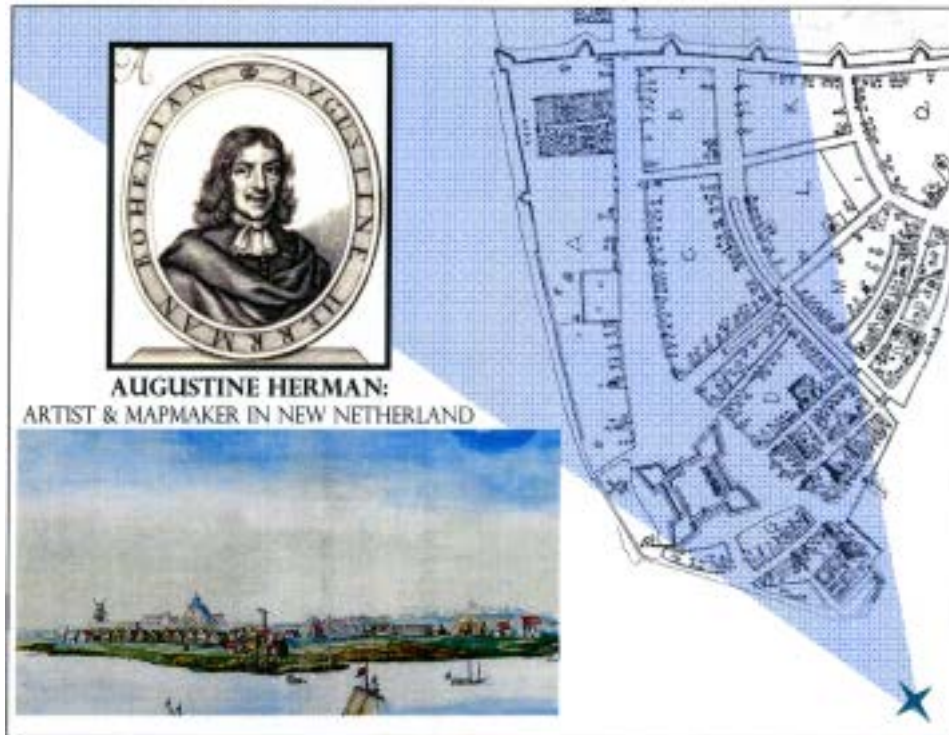
Images from:

www.wikimedia.org

<http://www.wsu.edu/~dee/GRAPHICS/GALLERY/VERMEER/VERM2.JPG>

<http://school.discoveryeducation.com/clipart/images/frame-v4c.gif>

http://www.art-prints-on-demand.com/kunst/jan_vermeer_van_delft/portrait_artist_xir111369_hi.jpg



Augustine Herman is thought to be the person who brought the first camera obscura to America. He was working for the Dutch East India Company and was a mapmaker and artist. It is believed that the color image of New Netherland (bottom left) was created after drawings Herman did using the camera obscura.

Show students that the camera would be placed on the star on the bottom right and pointed towards the city of New Netherland. The blue fill in represents the view that Herman would have had in his viewfinder.

Ask the students if they think this is a (more/less/equally) suitable use for the camera obscura as compared with the way Vermeer used it.

Images From:

<http://www.livius.org/a/1/netherlands/nieuwamsterdam.jpg>

<http://upload.wikimedia.org/wikipedia/en/thumb/2/20/Augustineherrmann1.jpg/222px-Augustineherrmann1.jpg>

http://www.mcah.columbia.edu/newyork/maps/jpg/mapcastello2_1660.jpg

http://etc.usf.edu/clipart/galleries/History/1607-1762_Colonial.htm

DAGUERRETYPE LOUIS DAGUERRE USED LIGHT SENSITIVE METAL PLATES TO MAKE A CAMERA OBSCURA THAT COULD CAPTURE IMAGES PERMANENTLY

THIS FAMOUS DAGUERRETYPE WAS CREATED IN 1847. DO YOU RECOGNIZE THIS AMERICAN PRESIDENT?

THE PROCESS:

1. THE PERSON POSING FOR THE PORTRAIT IS SEATED.
2. THE METAL PLATE COATED WITH SILVER IODIDE IS PLACED IN THE DAGUERRETYPE. THE BACK IS CLOSED.
3. WAIT SEVERAL SECONDS AS THE IMAGE IS RECORDED ONTO THE METAL PLATE.
4. REMOVE THE METAL PLATE.
5. THE METAL PLATE IS REMOVED AND WASHED IN A CHEMICAL SOLUTION.
6. THE PLATE IS THEN RINSED IN SALT WATER.
7. THE IMAGE IS COMPLETE.

Go over the daguerreotype process with the students emphasizing that this is just a camera obscura that is able to record permanent images. Ask the students how the daguerreotype is similar and different from the modern camera. [you may want to make a chart on the board to list the differences between the camera obscura, daguerreotype and the modern camera- this will help to better assess the students later] Make sure to look at the picture on the left and talk about the man being seated for the picture and about the clamp being placed around his head. Why did they do this?

In 1839 the French painter Louis Jacques Mandé Daguerre revealed his invention, the daguerreotype. The daguerreotype was created by integrating two inventions, the camera obscura and a light sensitive material (this was a result of the scientific research of several people the evolution presented below).

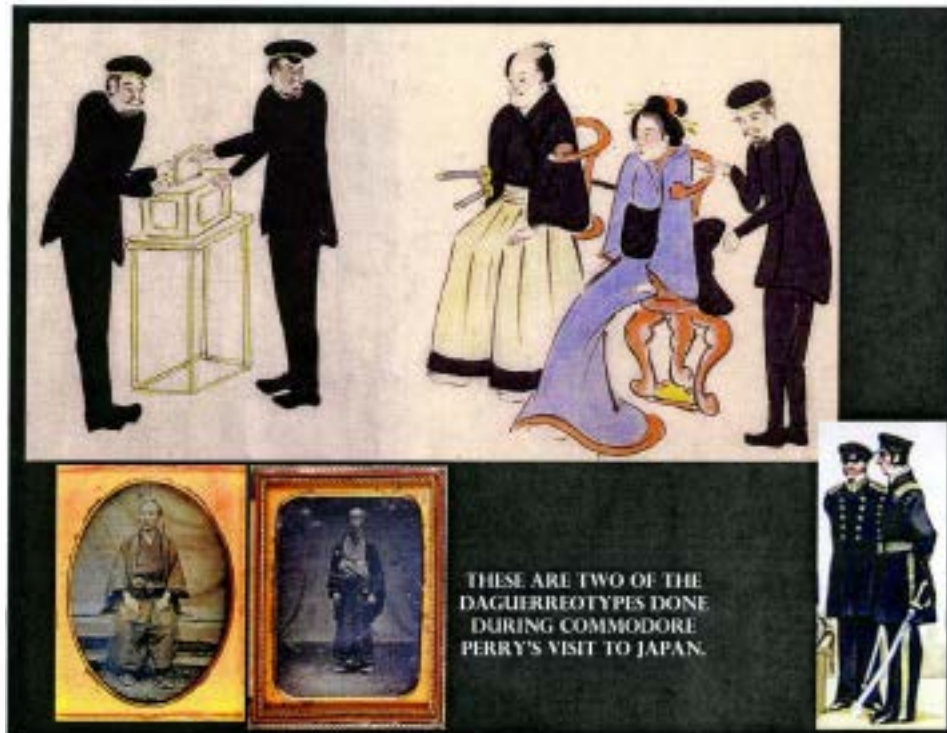
In Germany in 1725, Johann Heinrich Schulze experimented with silver salts and found that they were sensitive to light. It wasn't until 100 years later that this discovery was used for photography.

"In the 1820s French scientist [Joseph Nicéphore Niépce](#) was experimenting with improvements to the new printmaking technique of [lithography](#). In the process he discovered a way to copy engravings onto glass and pewter plates using bitumen, a form of asphalt that changes when exposed to light. .. In 1826 he put a bitumen-coated plate in a camera obscura, which he then placed with its lens facing the window of his estate in central France for eight hours. The resulting image, *View from the Window at Le Gras* (Gernsheim Collection, University of Texas at Austin)[see slide 8], is the earliest camera photograph still in existence.

In 1826 Niépce began sharing his findings with Louis [Jacques Mandé Daguerre](#), an artist and theatrical designer who owned a theater in Paris. Like Niépce, Daguerre hoped to find a way to create images from the camera obscura, but he had little luck until the two decided to become partners in 1829. Even then, Daguerre's most important discovery came only in 1835, two years after Niépce's death. Daguerre found that the chemical compound silver iodide was much more sensitive to light than Niépce's bitumen, and he placed a copper plate coated with silver iodide in a camera obscura. After exposing this plate to light for a relatively short time and then to fumes of mercury, an image appeared. One problem remained: The image darkened over time. But in 1837 Daguerre solved this final obstacle by washing away remaining silver iodide with a solution of warm water and table salt." excerpt from- <http://encarta.msn.com>

Images from- <http://www.historyplace.com/lincoln/lincpix/first.jpg>,
http://www.bornrich.org/images/daguerreotype-camera_48.jpg
http://etc.usf.edu/clipart/7900/7902/lincoln_7902_lg.gif

The American president pictured in the daguerreotype is Abraham Lincoln.



Tell students about the Black Ship Scroll and tell them that this is an image from the scroll- do not tell them what it is an image of.

Have the students talk about the picture, ask questions like:

Which people do you think are American, which are Japanese? How can you tell?

[click the slide to pop up the picture of two naval men] Explain that this is a more “accurate” picture of what the American men would have looked like. Point out how their dress is very similar to the men dressed in black in the picture.

What do you think the Japanese people are doing?

What do you think the Americans are doing?

What is the box the two Americans on the left are touching?

Now is an appropriate time to tell the students about the subject of the picture. Tell them that one of the two men using the daguerreotype is probably Eliphalet Brown Jr. He was the artist who accompanied Commodore Perry on his journey and brought the first daguerreotype to Japan.

Ask the students: From looking at the painting, what do you think the Japanese thought of this new technology?

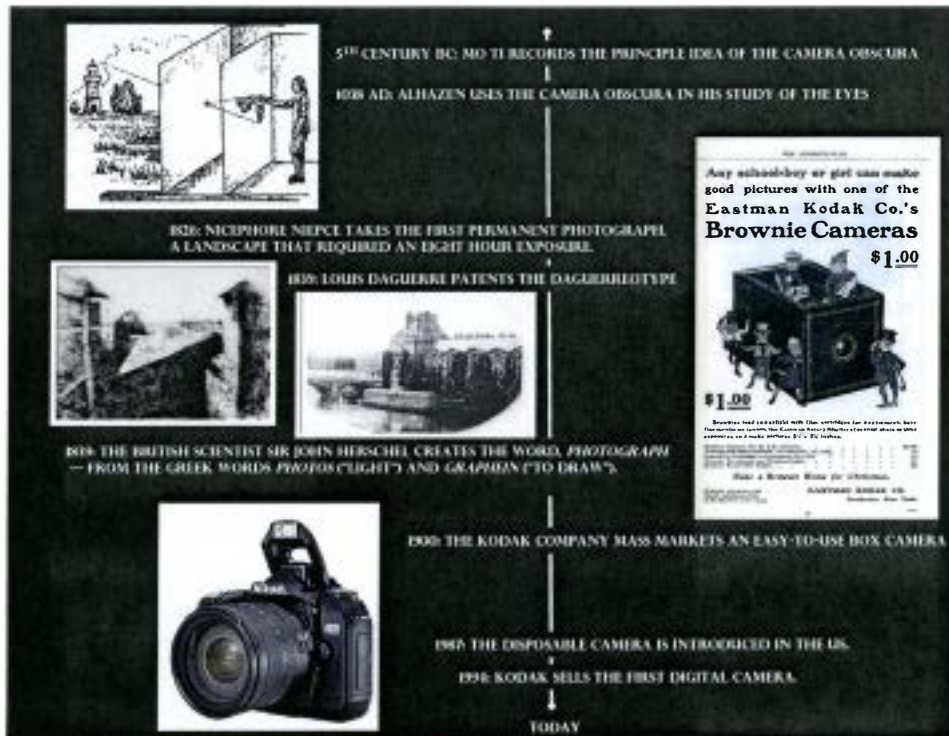
Consider asking: How does the painting differ from the photos as a way of documenting an event?

In 1852 Commodore Perry left Virginia with a small fleet of ships to go to Japan seeking to persuade the secluded country to open its doors to trade. Upon his second voyage in 1854 the Japanese allowed the Americans to spend several days on the mainland of Japan. Japanese artists painted the “Black Ship Scroll” in order to show fellow Japanese what the American culture was like. Included among these images was a picture of some Americans using a daguerreotype to capture an image of a Japanese shogun and his wife.

Images from:

<http://ocw.mit.edu/ans7870/21f/21f.027j/menu/index11.html>

<http://www.dkimages.com>

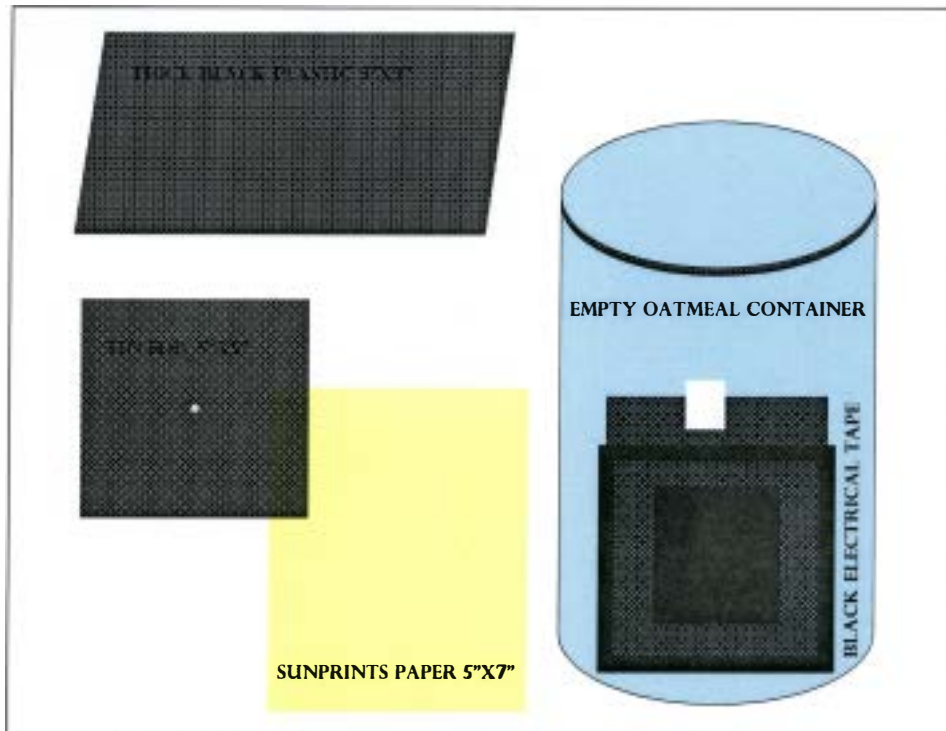


Go through the timeline, explaining as you go through that the camera obscura evolved from a tool to assist in making artwork to an actual form of artwork

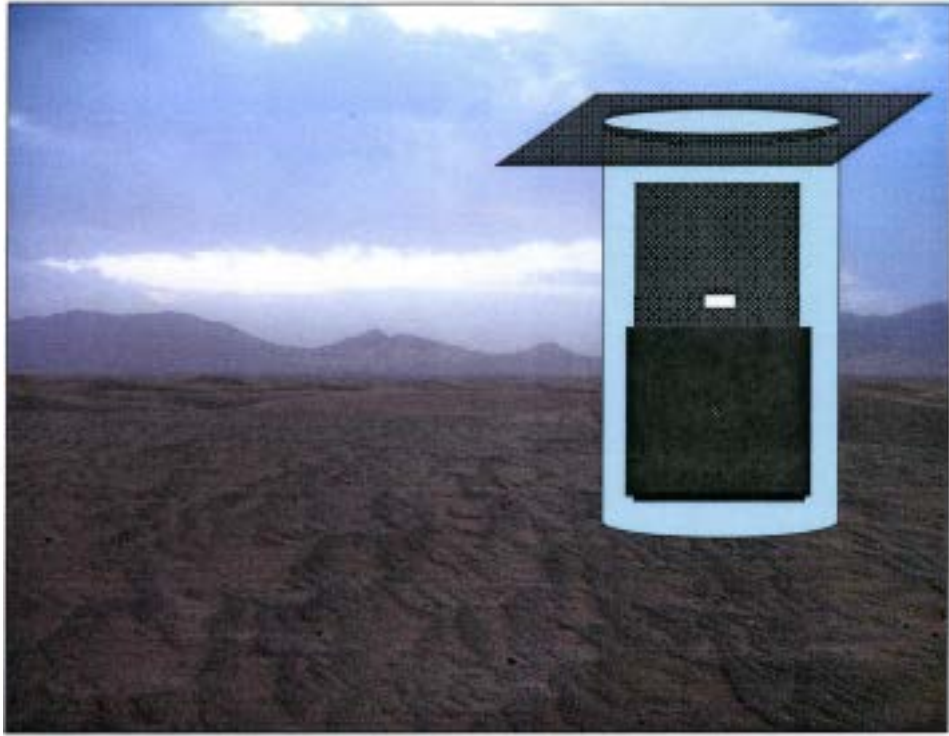
Images from:

www.wikimedia.org

www.lewis-clark.org



1. Paint the interior of the empty oatmeal container
2. Cut about a 3'x3' hole towards the bottom of the container
3. Make a hole in the tinfoil with a pin
4. Place this over the 3'x3' hole
5. Tape the tinfoil onto the oatmeal container with black electrical tape making sure there are no spaces for light to get in.
6. Go into a dark room
7. Tack the sunprint paper (with scotch tape) inside the empty oatmeal container opposite the pinhole.
8. Cover the open side (top) of the oatmeal container with thick black plastic and place the oatmeal container lid on top.
9. Using scotch tape, tack a small piece of black plastic over the pinhole area of the camera.
10. Take the camera outside and make a print.



- IX. Lesson 8: Visual Literacy**
- a. See PowerPoint presentation- “VTS.ppt”

Visual Literacy

Objectives:

- 1) Students will interpret groups of archaeological artifacts.
- 2) Students will create a story based on their artifact interpretation.

NYS Visual Arts Learning Standards:

- Standard 1* Experiment and create art works, in a variety of mediums, based on a range of individual and collective experiences.
Develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
Identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.
- Standard 2* Understand the characteristics of various mediums in order to select those that are appropriate for their purposes and intent.
Know about some cultural institutions and community opportunities for looking at original art and talking to visiting artists, to increase their understanding of art.
Give examples of adults who make their living in the arts profession.
- Standard 3* Explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and reasons for those responses.
Explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines.
- Standard 4* Look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures.
Create art works that show the influence of a particular culture.

NYS ELA Learning Standards:

- Standard 1* Gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from sources as charts, graphs, maps, and diagrams.
Select information appropriate to the purpose of their investigation and relate ideas from one text to another.
Select and use strategies that have been taught for notetaking, organizing, and categorizing information.
Make appropriate and effective use of strategies to construct meaning from print, such as prior knowledge about a subject, structural and context clues, and an understanding of letter-sound relationships to decode difficult words.
Ask specific questions to clarify and extend meaning.
- Standard 2* Understand the literary elements of setting, character, plot, theme, and point of view and compare those features to other works and to their own lives.
- Standard 3* Recognize that the criteria that one uses to analyze and evaluate anything depend on one's point of view and purpose for the analysis.
- Standard 4* Listen attentively and recognize when it is appropriate for them to speak.
Take turns speaking and respond to others' ideas in conversations on familiar topics.
Recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Other NYS Standards that are satisfied:

Social Studies: 1.1, 1.2, 1.3, 1.4, 2.1, 2.4, 4.1, 5.4

Math, Science, Technology: 1.2a, 5.5, 5.6

Assessment: (see also the following assessment form- share this with the cooperating ELA teacher)

Students should be assessed using the following criteria-

- 1) Is the student able to look at and interpret a group of artifacts?
- 2) Does the student use outside sources to support his/her interpretation?
- 3) Does the student's book have pictures that are helpful in illustrating their story?
- 4) Is the student able to create a story using character, plot and storyline accurately?

Note: When using this assessment form, there are two types of assessment- a pass or fail, or grade increments (the good and satisfactory columns are left blank when it is a pass or fail type).

| Student Name: | Excellent | Good | Satisfactory | Needs Work |
|--|--|--|--|--|
| Was the student an active observer? | The student made more than one observation and was attentive while others made observations. | The student made one observation and stayed attentive while others made observations. | The student made no observations, but stayed attentive while others made observations. | The student made no observations and was not attentive while others made observations. |
| Did the student participate in discussion? Was the participation ... relevant? ... appropriate? | YES Participation was both relevant and appropriate. | | | NO Participation was either not relevant or not appropriate. |
| Can the student use outside sources to support their idea? | YES, the student always supports their ideas with outside sources. | The student is able to support their ideas with outside sources some of the time. | The student is unable to support their ideas with outside sources. | NA. The student could not come up with any ideas |
| Is the student able to use images to illustrate the words of their story? | YES, all the images illustrate the accompanying text. | There are one or two illustrations that are not appropriate to the words of the story. | There are several images that do not seem to accompany the text of the story. | The images in the student's book do not seem to accompany the text. |
| Does the student's story have... ... at least two characters? ... a setting? ... a storyline? | YES, the student's story has at least two characters, a setting and a storyline. | The student's story has one character and either a setting or a storyline.. | The student's story exhibits only one of the three elements. | The student was unable to exhibit any of the elements in their story. |
| Project Grade | | | | |
| Comments | | | | |

Materials/Resources:

Artifact information packets.

Plain, unlined, 8 ½" X 11" paper, copy/printer paper works great.

Pencils

Coloring tools (markers, colored pencils, crayons, whatever seems appropriate for the age group)

Scissors

Anticipatory Set:

Give a brief introduction to archaeology. Explain that archaeologists dig in the ground to look for things that people of the past have left behind. They use these artifacts to help them learn more about people of long ago.

Instructional Procedure: Use these “mini-lessons” to fill in gaps around other lessons. The lesson will assist in developing student visual literacy. Part of the class will be spent looking at one slide which has a group of images (choose one of the four slides to use). The notes that accompany each slide in the PowerPoint presentation explain the group of artifacts. You will need to decide if the students will hear all, part, or none of the information in the notes. You may base this on the age of the students and their competency in visual literacy.

It is important to coordinate with the ELA teacher in order to make this lesson have its full potential. In the art classroom they can learn how to create books, while the writing can be done in regular class time under the supervision of a teacher trained in ELA.

Day One:

Present one of the four slides to the class. Follow the Visual Thinking Strategies Methods explained here.¹

Give the students a few minutes to observe the images in quiet. Proceed with three questions:

1. What’s going on in the picture?
2. What do you see that makes you say that?
3. What more can you find?

These questions encourage students to look at the presented images, comment on what they see and share a diverse range of interpretive remarks. It is helpful to paraphrase each student’s comments so that other students can hear what s/he said, but moreover, to assure the student that his/her observation is important.

Variations of the questions further develop the discussion, try: What is happening here? How do you know that from the picture? What more can you see?

Some additional questions: Who can add to that? Who sees something more? Does anyone see something different?

Explain that they will have the rest of class to look at these images and tell a story about them. Encourage students to be creative! Sometimes leaving some information out during the discussion can help facilitate this.

¹ This description of Visual Thinking Strategies (VTS) is taken from the K-12 Teacher’s Guide produced by the Tang Museum at Skidmore College. For more information on VTS see www.vue.org

Help students to create an outline describing character/s, setting and plot, you may want to use the attached outline. Teach students to make a simple book (follow outline below) by showing them and having them follow along. If time allows, give students time to illustrate their story using a variety of coloring materials.

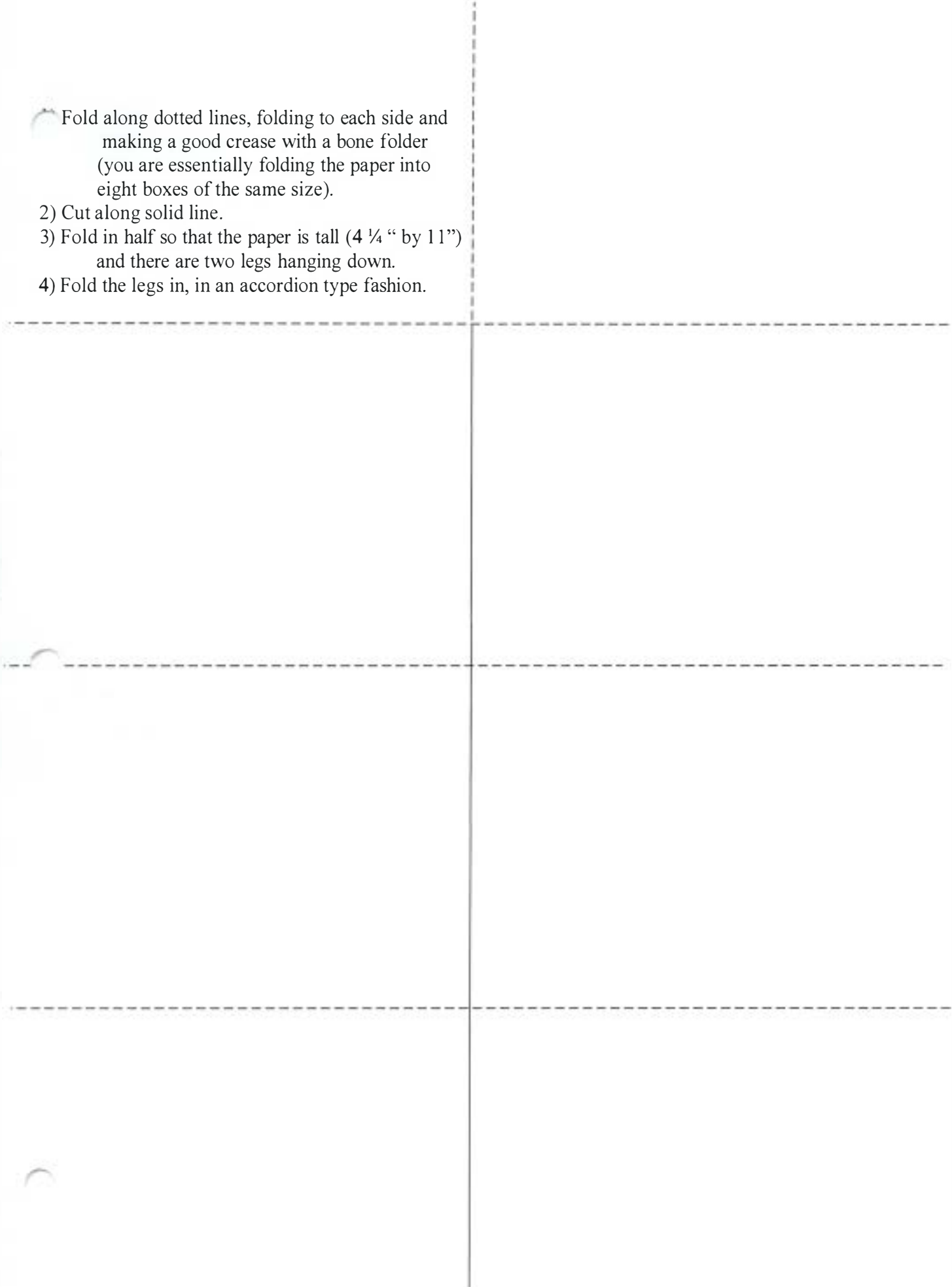
This project can be completed on another day or in another classroom. You will need to see the finished project in order to evaluate it using the assessment form.

Fold along dotted lines, folding to each side and making a good crease with a bone folder (you are essentially folding the paper into eight boxes of the same size).

2) Cut along solid line.

3) Fold in half so that the paper is tall (4 1/4 " by 11") and there are two legs hanging down.

4) Fold the legs in, in an accordion type fashion.



Time: _____

My characters are...

| Character 1 | Character 2 | Character 3 |
|--------------|--------------|--------------|
| Name: | Name: | Name: |
| Description: | Description: | Description: |

The setting is...

This is the storyline...

| | | | |
|---|---|---|---|
| 1 | 2 | 3 | 4 |
| 5 | 6 | 7 | 8 |



This page features pictures of a feature found within an archaeological site. This site has several interpretations which I will outline below, although it's true meaning may never be known.

Within the earth archaeologists found what looked like a basket, although the actual remains of the basket were deteriorated. At the bottom was a wooden board (upper left) with several holes in it. Inside the basket archaeologists found a variety of artifacts including bone, marbles, yellow brick fragments, nails, kaolin pipe stem fragments, and pieces of ceramic- including a large piece of Faience in the Wan-Li pattern. These artifacts are shown in the upper right of the slide. On the lower right is a map of where the basket and it's contents were found. This property was once owned by Cornelius Van Tienhoven- one of the first Dutch men to settle in New Amsterdam.

Theory One: The basket is a type of early drain and the artifacts accumulated there over time.

Theory Two: The basket was used by the Van Tienhoven children to collect things they found around the yard. The basket was eventually forgotten and naturally buried by time.

Theory Three: This basket was used by African slaves as a Mojo basket. Mojo baskets were used in ritual to ward off evil spirits and were often buried to seal the spell.

See the book *Hoodoo in Theory and Practice* by Catherine Yronwode for more information on the mojo basket.

Also see the book *Touring Gotham's Archaeological Past: 8 Self-Guided Walking Tours* by By Diana diZerega Wall, Anne-Marie E. Cantwell, this book talks about the basket and it's contents.



The objects shown on this slide are crucibles. Crucibles are small ceramic vessels made of a heat resistant ceramic. They range in size from around 1" tall to as big as 6" tall. They were used in the 17th and 18th Century by alchemists, the precursor to today's chemist. The crucible would have been used in a fire to melt metals. Their basic shape is triangular which allows for easy pouring. Crucibles were probably made in sets and could be nested inside each other/

In the slide is a painting done by David Teniers II depicting an alchemist in the 17th century. Allow students time to find a crucible in the painting and give them time to talk about the man in the painting and the general scenery.

The crucibles shown above were found in an archaeological dig in lower Manhattan. Ask the students to imagine a story about these crucibles. Help them to develop a story by asking questions like, "where were the crucibles originally located? Who used the crucibles? What were they used for? How did the crucibles end up in the ground?"

See the article in the New York Times "Transforming the Alchemists" by John Noble Wilford, published: August 1, 2006 or the article entitled "The Alchemist's Lab" written by Jennifer Pinkowsky in the Nov./Dec. 2004 issue of Archaeology for more information.



Bird-stone, Late Archaic - Early Woodland

Native American, probably Iroquois

Polished Slate; H 1¼ in. W 2¾ in.

Found in Onondaga County, owned by the New York State Museum.

New York State Museum accession number: Bx 31-778

Bird figure with definitive eyes and two holes bored through base. Although the use of such a figure is unknown, the hole bored through the base of the bird suggests that the figure would have been attached to another object. What the piece was attached to cannot, however, be determined - only presumed. Below are listed some theories on the use of the birdstone:

1. The symbolic parts of the birdstone, the bird and the eye, produce a picture of what the birdstone might have been used for. The birdstone may have been related to hunting. Like the falcon, the bird that had the ability to see well would help Native American hunters to have good fortune when hunting. Further, the bird would protect and look after the hunter or whoever used the object.
2. 'This is the sacred totem of our clan,' he said. "He remembered how at times when his family sat down on the earth to eat, a hickory stick was set in the ground, in the center of the group, with the beaver totem fastened to the top." "This totem meant as much to my father as the American flag does to you." Allen, George X.. Jan., 1936. "The Significance of the So-Called Bird-Stone." *American Antiquity*. 1 (3): 224-226.
3. Birdstones have been found in large quantities in Wisconsin, New York, Ohio, and Indiana. All of these states are bordered by or contain waterways. It is known that the Native Americans living in this area, either the Iroquois or the Algonquin, used canoes. In fact, the canoe was important for the livelihood of these people groups. The area these people were living in, however, was known as the thunderstorm section of the land.^[1] Storms would often prevent Native Americans from being in their canoes. Seeking to solve this dilemma, the tribe created what is known as the birdstone. Native Americans believed that storms were caused by spirits known as thunder birds. By making an image of a bird and tying it to their canoe they were seeking to appease these spirits.

[1] The above perspective is based on the following article: Whitehead, Ralph H. October, 1936. "The Birdstone and its Probable Use." *American Antiquity*. 2 (2): 134-137.

4. The birdstone was a type of weight used on a n atlatl (pronounced at-lat-tal). The atlatl was a rod or plank up to a meter in length that was used to "propel a spear with greater efficiency".^[1] Because Native Americans relied on hunting to provide food for their tribe, the atlatl was an important tool to have. Animals that could travel between the earthly and heavenly realm were thought to have special powers. Also, the falcon, a specific type of bird, was known for its ability to catch its prey while in flight. The Native Americans would have wanted to call upon the powers of the Falcon and other birds so that they could have good fortune while hunting.

[1] Information in this document is based on an interview I conducted with Ralph Rataul on May 18, 2006.



While digging in lower Manhattan archaeologists came across a large pile of kaolin pipes. These pipes were broken and appeared to have never been smoked. Many of the pipes had features that looked unusual, like they had been squished. On the bottom of the above slide you will see two such instances. The pipe on the left has been pinched on the stem and up close even shows a fingerprint. The pipes on the right all have bowls that are irregularly formed, not perfect ovals.

Because the pipes were found in a small shed next to a tavern, it is thought that this large deposit of pipes may have been the rejects of a shipment that came from England. It has long been thought that England would send their “seconds” to America as a way to scam the new colonists.

It is more likely that the tavern owner had a business of making kaolin pipes that he ran out of a shed in the back. This deposit of pipes would have been the rejects of his production. There was little evidence of this second theory until just recently when a kiln brick was discovered in the same context as the pipe deposit.