CERAMICS I
GRADES 9-12

EWING PUBLIC SCHOOLS
2099 Pennington Road
Ewing, NJ 08618

Board Approval Date: September 19, 2022 Michael Nitti
Produced by: EHS Art Department Superintendent

In accordance with The Ewing Public Schools' Policy 2230, Course Guides, this curriculum has been reviewed and found to be in compliance with all policies and all affirmative action criteria.

Table of Contents

	Page
Course Description and Rationale	3
21st Century Life and Careers	4
Unit 1: Introduction to Ceramics/History	5
Unit 2: Procedures, Properties and Vocabulary of Clay	9
Sample RST	11
Unit 3: Hand-Building Techniques and Glazing	15
Unit 4: Refining, Finishing and Glazing	19
Unit 5: The Firing Process	22
Ceramics I and II Worksheet	26
Ceramic Critique Form	27
Art Criticism Scoring Guide	28
Glossary of Ceramic Terms	31
Suggested Sequential Projects	35
Sample 21st Century, Career, & Technology Integration	36

Course Description and Rationale

<u>Ceramics I</u>:

Ceramics I is an introduction to working with clay and understanding the ceramic process from start to finish. The relationship between form and function will be critically examined as students learn basic hand building and techniques. The direction of their work will evolve as they reflect on their changing definitions of art.

Ceramics I is designed for students who have never had ceramics at the high school level. Students are taught how to build pottery by use of pinch, coil and slab methods of construction. Special emphasis is placed on surface treatments such as relief, incised design, slip trailing, inlay, graffito, under glazing and other decorative techniques. In this class students learn how to communicate effectively, using the elements of art and principles of design: line, space, form, value, shape, color, texture and pattern.

Students learn to define, analyze and solve visual problems in three dimensions. They access and interpret information from a variety of sources as they create and explore with hand-building techniques, glazing techniques and maintenance of the ceramics studio. Students draw inspiration from the world around them, the works of other artists and from their own imaginations. Students also learn how to critically analyze a work of art, in order to achieve creative results.

21st Century Life and Careers

In today's global economy, students need to be lifelong learners who have the knowledge and skills to adapt to an evolving workplace and world. To address these demands, Standard 9, 21st Century Life and Careers, which includes the 12 Career Ready Practices, establishes clear guidelines for what students need to know and be able to do in order to be successful in their future careers and to achieve financial independence.

The 12 Career Ready Practices

These practices outline the skills that all individuals need to have to truly be adaptable, reflective, and proactive in life and careers. These are researched practices that are essential to career readiness.

9.1 Personal Financial Literacy

This standard outlines the important fiscal knowledge, habits, and skills that must be mastered in order for students to make informed decisions about personal finance. Financial literacy is an integral component of a student's college and career readiness, enabling students to achieve fulfilling, financially-secure, and successful careers.

9.2 Career Awareness, Exploration, and Preparation

This standard outlines the importance of being knowledgeable about one's interests and talents, and being well informed about postsecondary and career options, career planning, and career requirements.

9.3 Career and Technical Education

Technology Integration

8.1 Educational Technology

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and create and communicate knowledge.

8.2 Technology Education, Engineering, Design and Computational Thinking Programming

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

ELA
Integration

The Research Simulation Task requires students to analyze an informational topic through several articles or multimedia stimuli. Students read and respond to a series of questions and synthesize information from multiple sources in order to write an analytic essay.

Companion Standards - History, Social Studies, Science and Technical Subjects (6-8)
Companion Standards - History, Social Studies, Science and Technical Subjects (9-10)
Companion Standards - History, Social Studies, Science and Technical Subjects (11-12)

Ceramics I: Unit 1: Introduction to Ceramics/History (3 weeks)

Why Is This Unit Important?

The word 'ceramic' is derived from the Greek word 'keramos' meaning potter or pottery. Keramos, in turn, originated from a Sanskrit root word meaning 'to burn'. Hence, the word keramos was to infer burned substance or burned earth.

Ceramics has been accompanying the human race since ancient times. Archaeologists have unearthed man-made ceramics that date back to at least 25,000 BC. Primitive ceramics were made of basic earthen materials like clay and were burnt in domes. Human inventiveness gradually started with firing these articles at higher temperatures to attain harder ceramic articles. This desire of getting harder substances steered the human races to invent better firing techniques. The human zest and nature's mystery have come a long way from basic earthen wares to modern world advanced ceramics.

Enduring Understandings:

- Understand that culture affects self-expression whether we realize it or not.
- Understand that every artist has style; every period has style.
- Understand that technology affects the arts.
- Understand how artifacts reflect various cultures in history.
- Understand ceramics are some of the only materials which continue to exist to reflect past people. Hence, we may call them a strong-fragile part of human life.
- Understand that since ancient times, the technology and applications of ceramics have steadily increased.
- Understand clays are divided into two classes: residual clay, found in the place of origin; and transported clay, also known as sedimentary clay, removed from the place of origin by an agent of erosion and deposited in a new and possibly distant position.
- Understand that clay has been indispensable in architecture, in industry and in agriculture from prehistoric times.

Essential Questions:

- Does art define culture? Or, does culture define art?
- How does art created in the past affect art today?
- How important is 'new' in art?
- Why did humankind create ceramics?
- What do I need to do before I can create with clay?
- How is clay an art form? In what ways has it been used?

Acquired Knowledge:

- Basic knowledge of ceramic decoration
- Apply the elements and principles of art to the three-dimensional design of ceramic structures
- Acquire knowledge of the uniqueness of clay
- Become familiar with basic glaze formulations
- Acquire a basic knowledge of bisque and glaze firing processes
- Acquire vocabulary specific to ceramic techniques and firing processes

Acquired Skills:

- Basic skill in hand-building methods, including pinch, coil and slab methods
- To follow sequential directions as they apply to the ceramic process
- To develop responsibility in the care and safe use of ceramic tools, materials and equipment
- To compare/contrast the past history of ceramics to current trends
- Develop eye-hand coordination in three-dimensional ceramic work

Assessments:

Formative Assessment:

- Do Nows
- Exit Slips
- Daily Participation Points

Summative Assessment:

- Quizzes
- Tests
- Self-Assessment
- Critiques

Benchmark Assessment:

- Project Grade aligned with rubric

Alternative Assessment:

- Modified Quizzes, Tests & Project Requirements

Instructional Strategies:

- Discuss steps in the ceramic process
- Discuss physical properties of clay
- Discuss (compare and contrast) the purposes of ceramic art from major time periods and cultures
- Discuss complex issues, such as distortion of shapes/form, space, simplified and actual texture, scale, balance and expressive content as they appear in ceramic objects
- Teacher demonstration of clay piece

Instructional Materials:

Core:

- Clay
- Clay tools (potter's needle, cut off wire, wooden modeling tools, sponges, brushes, towels, slab roller, rolling pin)
- Glazes
- Plastic bags
- Physical ceramic work examples

Supplemental:

- Google Classroom
- Technology integration:
  - www.potterymaking.org
  - www.americanstyle.com
  - www.ceramicmonthly.org
  - https://www.youtube.com/watch?v=tBDH5ck_a68 (applique and incising techniques)

NJSLS Standards:

- 1.5.12prof.Cr1a
- 1.5.12acc.Cr1b
- 1.5.12adv.Cr1a
- 1.5.12adv.Cr1b
- 1.5.12prof.Re7a
- 1.5.12prof.Re7b
- 1.5.12acc.Re7b
- 1.5.12prof.Cn11a
- 1.5.12acc.Cn11a

Instructional Activities/Suggested Learning Experiences:

- Review/create ceramic history timeline
- Provide visual examples of various historical/cultural ceramic milestones
- Cooperative discussion of cultural viewpoints
- Define related ceramic vocabulary

Ceramics I: Unit 2: Procedures, Properties and Vocabulary of Clay (3 weeks)

Why Is This Unit Important?

One of the most important things to do when working with clay is to feel it. This may sound silly, but getting used to the texture and feel of the clay is important. The reason for this is actually very practical. There are many different types and qualities of clay and each type of clay is suitable for a particular task.

When buying clay, ask about the amount of grog that the clay contains. Grog is a hard element in the clay that determines the strength or weakness of the material. If you are going to use the clay for sculptural purposes, then you need strong, flexible clay; while smoother clay with less grog may be more appropriate for pottery work.

It is important to begin experimenting with a range of tools and explore the different ways in which they shape the clay. The wonderful advantage of clay is that you can wipe out any mistakes and start again. Pottery terms are used by ceramic artists in most areas of the world. Each culture has established terms which define materials, processes, tools, ingredients and production techniques.

Enduring Understandings:

- Elements and principles are the visual language used by artists when they create artwork.
- Technical skill in using media and processes allows an artist to communicate ideas through high quality art products.
- Specific vocabulary is necessary to understand and communicate in the creation of art.
- Understand it is important to use specific practices and procedures that are essential to create ceramic structures.
- Understand that all art has specific underlying characteristics which can be used as tools that will help to construct compare and analyze individual pieces.

Essential Questions:

- What is the value of specific terminology in respect to clay construction?
- Why are specific procedures needed to create ceramic structures?
- How do the underlying building blocks of art effect the creation of ceramics?
- What makes critique valid?

Acquired Knowledge:

- Students will acquire basic knowledge of hand building techniques, using pinch, slab and coil to produce sculptural as well as functional pieces.
- Students will acquire vocabulary specific to ceramic techniques and firing processes.
- Students will acquire a basic knowledge of ceramic decoration.
- Students will acquire a basic knowledge of the steps in the ceramic process.
- Students will acquire a basic knowledge of glaze formulations.

Acquired Skill:

- List four basic techniques for forming clay.
- Explain why it is important for potters to control the temperature and rate of heating when firing clay work.
- Identify elements and principles used in a ceramic form.
- Describe ceramic production processes and define related vocabulary.
- Use the clay media/sketchbook to explore good design concepts such as balance, proportion and harmony.

Assessments:

Formative Assessment:

- Do Nows
- Exit Slips
- Daily Participation Points

Summative Assessment:

- Quizzes
- Tests
- Self Assessment
- Critiques

Benchmark Assessment:

- Project Grade aligned with rubric

Alternative Assessment:

- **RST** - Research the ceramic work of an ancient culture from another part of the world. Write an essay that describes the types and purposes of ceramics produced and the methods and materials used to create them. After carefully examining the examples of clay artwork from the culture, conclude your essay with a description of what ideas these artworks communicate with culture.

Sample RST- Greek Vases -

Ceramics I Ms. Weber Research questions:

Please type out your research answers and indicate the sites where you found your information on a separate page.

Central Question: (worth 25 points)

What were the purposes of the variety of shapes in Greek vases? What do their illustrations tell us about their culture?

Document 1: (worth 50 points)

http://www.ancientgreece.co.uk/dailylife/explore/pot_shapes.html Ancient History Encyclopedia

- How many different shapes does Greek Pottery have?
- What are 3 different names of the shapes?
- What are the characteristics of each?
- What are their purposes?
- How have these vase shapes influence our current culture?
- Name three examples of these vase shapes in our current culture. Can you find any new shapes in the 21 century?

Document 2: (worth 25 points)

Handout of Geometric, Black-figure and Red-figure from:

https://quatr.us/history/geometric-greek-pottery.htm

https://quatr.us/art/greek-black-figure-pottery.htm

https://quatr.us/art/greek-red-figure-pottery.htm

- Compare and contrast the designs on Geometric, Black-figure and Red-figure Greek Pottery.
- What do the images illustrate?

Name _____

Ceramics I Ms. Weber

Written Central question: worth 50 points

What were the purposes of the variety of shapes in Greek Vases? What do their illustrations tells us about their culture?

50- 41 points	40- 36 points	35- 26 points	25-11 points	10-1 points
5 or more shapes explained Effective, developed and clear ideas	4 shapes explained Effective, developed ideas	3 shapes explained Somewhat developed and coherent	2 shapes explained Lacks limited organization and coherence, with very little information on visual Explanations and culture	1 shape explained No explanation on illustrations Lacks organization and coherence

Instructional Strategies:

- Demonstrate a variety of making and finishing techniques, working both sculpturally and functionally.
- Demonstrate decorative techniques: glaze, under-glaze, burnish/polish.
- Look at the work of professional artists who work with clay. Show pictures, photos, samples of clay work. Discuss the style, clay used, glazing, decorations.
- Discuss with students the art vocabulary associated with clay.

Instructional Materials:

Core:

- Clay
- Modeling tools
- Rolling pins
- Guide sticks
- Slip dishes
- Canvas cloth
- Plastic bags
- Glazes/under glazes
- Technology integration:
    - www.potterymaking.org
    - www.americanstyle.com
    - www.ceramicmonthly.org

Supplemental:

- Google Classroom
- Technology integration:
    - www.potterymaking.org
    - www.americanstyle.com
    - www.ceramicmonthly.org
    - https://www.youtube.com/watch?v=tBDH5ck_a68 (applique and incising techniques)

NJSLS Standards:

- 1.5.12prof.Cr1b
- 1.5.12acc.Cr1a
- 1.5.12adv.Cr1b
- 1.5.12acc.Cr2a
- 1.5.12prof.Pr4

Instructional Activities/Suggested Learning Experiences:

- Draw three sketches in his/her journal of pinch pot, slab box and tea pot designs
- Student/teacher dialogue on effective critique
- Use three pieces of clay of different thickness to form the same simple form (slab, pinched pot or coil)
- Note the rate at which each form dries. At what point is each form too dry to be workable.

Ceramics I: Unit 3: Hand-Building Techniques and Glazing (5 weeks)

Why Is This Unit Important?

Hand-building techniques have remained unchanged for thousands of years. Today, clay artists often use the same methods as their predecessors. All one needs is an idea, some sketches, a few good tools, clay and knowledge to join clay pieces together.

The three methods of hand-building (pinch, coil, and slab) are the basis of most variations in clay construction. You can use these methods, alone or in combination, to make simple tiles and elegant vessels. You can experiment with making musical instruments, marks or lidded boxes. Clay hand-building offers a freedom that can lead you into sculptural expressions you many never have imagined you could explore.

Enduring Understandings:

- Students will understand which ceramic construction methods are more conducive to producing specific structures.
- Students will incorporate creativity and imagination in combination with specific skills and disciplines to create quality products.
- Students will understand that self-critique is an essential component to the creation of all art.
- Students will understand that the elements and principles of art are an integral part of the creative process.
- Students will understand the firing process for finishing ceramics.

Essential Questions:

- How do specific hand-building techniques affect structure and form?
- What techniques are best suited for specific ceramic structures?
- How is glazing a part of the elements and principles of art?
- How are aesthetic components important to a finished piece?
- How can critique affect the creation of art work?
- How have different cultures utilized the pinching method of hand-building clay into art?
- What techniques and tools are used in expressing texture and design in the development of a clay work of art?

Acquired Knowledge:

- What's great about clay is its flexibility; it can be used not only to adorn or decorate architecture but also to express complex concepts and ideas
- Knowledge of the wedging process
- Knowledge of the pinch-method of hand-building
- The thickness/thinness rule
- The technical process of joining clay
- Methods and tools utilized in the creation of textural design
- Knowledge of glaze and the technical process for glazing a ceramic piece
- Historical connections associated with the pinching method of hand-building and incorporate that knowledge into the creation of their own artwork

Acquired Skill:

- Develop skills for manipulating and joining clay
- Utilize a sketchbook for product development
- Seamlessly join two consistent pinch pots and create a historically-inspired artwork
- Create textural design
- Utilize and continue to develop a clay vocabulary

Assessments:

Formative Assessment:

- Do Nows
- Exit Slips
- Daily Participation Points

Summative Assessment:

- Quiz - hand-building methods
- Tests
- Self-Assessment
- Critiques **-** Personal reflection on choice

Benchmark Assessment:

- Project Grade aligned with rubric
  - Create the following hand building projects:
    - Pinch Pots: heart coil pot, snake coil pot
    - Coil Method: bowl or vase
    - Slab Method: slab tray, slab container-slab box with lid

Alternative Assessment:

Instructional Strategies:

- Discuss with students the visual characteristic of ceramic artworks, objects in nature, events and use art vocabulary in relation to student's work in ceramics and to the work of others.
- Discuss and describe various purposes for creating ceramic works of art, past and present.
- Explore and demonstrate a variety of constructive techniques and processes for surface enrichment.
- Identify and discuss various glazes and their specific and unique uses.

Instructional Materials:

Core:

- Clay
- Modeling tools
- Rolling pin
- Sketchbook
- Slip dish
- Canvas cloth
- Plastic bag
- Guide Sticks
- Under glaze/clear glaze
- Glazes

Supplemental:

- Google Classroom
- Technology integration:
  - www.potterymaking.org
  - www.americanstyle.com
  - www.ceramicmonthly.org

NJSLS Standards:

- 1.5.12prof.Cr1a
- 1.5.12prof.Cr1b
- 1.5.12acc.Cr1b
- 1.5.12adv.Cr1b
- 1.5.12acc.Cr2a
- 1.5.12acc.Cr3a

Instructional Activities/Suggested Learning Experiences:

- Properly wedge clay to prepare it for use
- Create test strips illustrating textural design and glazing
- Develop refining methods using tools and techniques to achieve a successfully completed work
- Use glazes correctly
- Continue to increase and utilize a clay vocabulary

Ceramics I: Unit 4: Refining, Finishing and Glazing (4 weeks)

Why Is This Unit Important?

Creating a pot, sculpture or other ceramic object can be a wonderful form of expression, allowing the artist to show his/her creativity in a 3-D medium. While such work goes into creating the shape of a ceramic object, applying the glaze allows for detail and color expression and requires skill and talent to execute.

Ceramic glazes are both useful and decorative. Unglazed ceramics are porous. If liquid is left in an unglazed piece, it will leak out through the open clay pores. Glaze coats ceramic surfaces, making them impermeable and waterproof. In a ceramics kiln, glaze melts and flows evenly over an object, coating the surfaces evenly with a thin coating of glass. As the glass cools, the glazed surface turns smooth and solid. Glaze strengthens the entire body of a vessel.

Enduring Understandings:

- There are a number of interesting ceramic glazing effects that are commonly used by potters.
- Glazes are generally applied as liquids to a ceramic surface by painting or dipping an object into a bucket of glaze.
- Students will understand the firing process for finishing ceramics.
- Students will understand that the elements and principles of art are an integral part of the creative process.
- Students will understand which ceramic construction methods are more conducive to obtaining specific structures.
- Understand that potters sometimes choose to do additional firings to achieve color and surface effects not possible in the glaze firing.

Essential Questions:

- What techniques are best suited for specific ceramic structures?
- How is glazing a part of the elements and principles of art?
- How are aesthetic components important to a finished piece?
- What is over glaze firing?
- What are the ceramic glazing effects that are commonly used by potters?

Acquired Knowledge:

- Students will know what glaze is.
- Students will know the correct procedures for applying glazes.
- Students will know the difference between under glazes and over glazes.
- How to prepare a bisque piece of ceramic for glaze application.
- Students will know careers in ceramics as well as arts-related careers.

Acquired Skills:

- Use glaze as a decorative finish
- Use underglaze/slip as a decorative finish
- Demonstrate an understanding of the varied functions of an artist, art critic, art historian, art collector and art philosopher (aesthetician), ceramicist, mold maker and sculptor.
- Follow sequential directions as they apply to the ceramic glazing process.
- Acquire and apply the skill of decorating using the staining technique.

Assessments:

Formative Assessment:

- Do Nows
- Exit Slips
- Daily Participation Points

Summative Assessment:

- Quizzes
- Tests
- Self-Assessment
- Critiques

Benchmark Assessment:

- Project Grade aligned with rubric
  - Completing required elements
  - Time spent on project
  - Craftsmanship
  - Creativeness
  - Demonstrate various forms of textural design in the creation of their ceramic project

Alternative Assessment:

- Modified Project Requirements

Instructional Strategies:

- Continue to increase and utilize a clay vocabulary
- Discuss with students ceramic techniques and firing processes
- Discuss/list possible careers in ceramics and related fields
- Explore with students a variety of glazes, constructive techniques and processes

Instructional Materials:

Core**:**

- Clay
- Modeling tools
- Rolling pin
- Guide sticks
- Slip dish
- Canvas cloth
- Plastic bags
- Glazes

Supplemental**:**

- Google Classroom
- Technology integration:
  - www.potterymaking.org
  - www.americanstyle.com
  - www.ceramicmonthly.org

NJSLS Standards:

- 1.5.12prof.Cr1a
- 1.5.12prof.Cr1b
- 1.5.12acc.Cr1b
- 1.5.12adv.Cr1b
- 1.5.12acc.Cr2a
- 1.5.12acc.Cr3a

Instructional Activities/Suggested Learning Experiences:

- Research a career in ceramics or arts-related field
- Reflect on how knowledge and skills learned in ceramics apply to their future
- Students will write about their ceramic pieces to reinforce literacy skills

Ceramics I: Unit 5: The Firing Process (3 weeks)

Why Is This Unit Important?

The kiln is the potter's most important piece of equipment. Although you can make a clay pot or sculpture with only your hands, to create a durable ceramic form you must fire your work. Firing is the process of bringing clay and glazes up to a high temperature. The final aim is to heat the object to the point that the clay and glazes are mature.

Whether simple or elaborate, the kiln should reasonably fit the needs of the classroom. As a student, you may not be firing kilns initially, but you should have a basic understanding of the firing process, types of kilns, firing sequences and the expected outcomes. Kilns evolved from simple open-fire constructions that used grasses, wood or dung for fuel to ones powered by oil, coal, wood, natural gas, ground or as sophisticated as computer-programmed structure.

Enduring Understandings:

- Understand that bisque firing is the first time ceramic pieces go through high temperature heating. It is done to vitrify the clay pieces enough that they won't be harmed when glazes are applied, but not vitrified to such an extent that the glaze won't adhere correctly.
- Understand that bone-dry greenware is very fragile and must be loaded into the kiln with a great deal of care.
- Understand that once glazes have been applied to the bisque ware and have had a chance to dry, the ware is carefully loaded into the kiln for the glaze firing.
- Understand that ceramic pieces cannot be allowed to touch at all or the glazes will melt together, welding the pieces together.
- Understand that glazes undergo chemical reactions when they are fired and kiln temperature and atmosphere can affect colors in dramatic ways.

Essential Questions:

- When placing ware into the kiln to be fired, why it is important to place the pieces at least a half inch apart?
- What is over glaze firing?
- What is soaking?
- What happens when you bisque and glaze in a kiln?
- What is the difference between an updraft kiln and a downdraft kiln?
- What is vitrification?

Acquired Knowledge:

- Early firing methods are still used in Asia, South America, North America, Africa and other areas.
- The main methods of firing clay are open firing, in which the vessels and fuels are set together, and kiln firing, in which the vessels and fuels are separated.
- Kilns can produce very high temperatures suitable for firing a wide range of clays and glazes.
- Most kilns are powered by either gas or electricity.
- Using kilns instead of cooking fires, potters were able to achieve new and greater effects by controlling the rate of heating, the maximum temperature and the atmosphere of the firing.

Acquired Skill:

- Apply knowledge of health and safety in the firing process
- List the steps in loading a kiln
- Procedures to follow after the glaze firing
- Describe the additional firing techniques
- Explain why most ceramic pieces need to be fired more than once

Assessments:

Formative Assessment:

- Do Nows
- Exit Slips
- Daily Participation Points

Summative Assessment:

- Quizzes
- Tests
- Self-Assessment
- Critiques
    - Take two bisque pieces of roughly the same size, shape and clay type. Use the same glaze on each piece. Fire one in a reduction atmosphere, the other in an oxidation atmosphere. What differences do you notice in the finished pieces?

Benchmark Assessment:

- Project Grade aligned with rubric
  - www.ceramicbulletin.org - View the American Ceramic Society Bulletin. Write a one page paper about the achievements of an artist in the ceramics industry and present to class.

Alternative Assessment:

- Modified Project Requirements

Instructional Strategies:

- Discuss and list the steps in the firing process
- Discuss the importance of safety when loading/firing
- Discuss Bernard Leach, Shoji Hamada and Peter Voulkos, notable clay artists

Instructional Materials:

Core:

- Clay
- Clay tools
- Rolling pin
- Glazes
- Text: Experience Clay (Maureen Mackay/Davis Publications, Inc.)
- Kiln

Supplemental:

- Google Classroom

NJSLS Standards:

- 1.5.12prof.Cr1a
- 1.5.12prof.Cr1b
- 1.5.12acc.Cr1b
- 1.5.12adv.Cr1b
- 1.5.12acc.Cr2a
- 1.5.12acc.Cr3a

Suggested Learning Experiences and Instructional Activities:

- With a partner, examine various clay pieces and respond to questions about:
    - Structure
    - Firing techniques
    - Glaze effects

Ceramics I and II Worksheet

Name:_____Class:_____

Look at three artworks presented by your teacher that are labeled A, B and C. Complete the chart below to compare/contrast the works.		
Which culture is each work from?		
Work A	Work B	Work C
Which characteristics helped you identify the culture? How do those characteristics relate to the function of the piece?		
Work A	Work B	Work C
On the basis of which culture was chosen and the subject matter, when do you think the work was created? WHY?		
Work A	Work B	Work C
What was life like at that time and place and HOW did that influence the artist?		
Work A	Work B	Work C
How was this work valued when it was created as compared to how it is valued today?		
Work A	Work B	Work C

On the next page, write an essay comparing the importance of these works in the history of art. Support your opinions with information from the charts you just completed.

Ceramics Critique Form

Questions	Write your ideas here. Give first impressions. Say what you see. Do not judge. Describe, analyze and interpret.
What stands out the most when you first see the piece? Explain why.	
As you keep looking, what else seems important? Explain why.	
Has contrast been used in this piece and how?	
What leads your eye around this piece?	
Describe the form of the piece.	
What tells you about the building techniques?	
What do you feel was the intent for the piece? What would you use for the piece?	
What other things interest you about this piece?	
Overall interpretation based on the answers above.	

Overall score from 1-10 (with 10 being the highest):

_____

Art Criticism Scoring Guide

Criteria	4 Advanced	3 Proficient	2 Nearly Proficient	1 Progressing
Art Criticism Introduction Tells plan to critique. Gives information about the work: artist's name, title of piece, when and where it was created, what media was used, its period, style or culture.	Clearly states plan to critique another artist's work or to explain the goal of a personal piece All available information given	States plan to critique another artist's work or to explain the goal of a personal piece Most available information given	Artist's work or a personal piece mentioned Tells artist's name and title	Artist's name or title of work listed
Art Criticism Description 'Shopping List' sentences of everything seen in the artwork	Logical, coherent, complete, detailed description of what is seen in the work	Logical, coherent, complete description of what is seen in the work	Complete description of what is seen in the work but slightly unorganized	Random mention of one or two details seen in the work
Art Criticism Analysis Elements (Line, Shape, Form, Color, Texture, Space, Value, Principles (Balance Emphasis, Contrast, Rhythm, Unity, Proportion)	Considers each element and principle to determine which are most important in the work Explains, in detail, how and where each important element and principle is used in the work	Considers elements and principles to determine which are most important in the work Explains how and where each important element and principle is used in the work	Lists elements and principles used Tells how or where some elements and principles are used in the work	Partially lists elements and/or principles

Criteria	4 Advanced	3 Proficient	2 Nearly Proficient	1 Progressing
Art Criticism Interpretation Explain the artist's use of symbols (color, shape and cultural meanings), emotional mood or attitude toward the subject, social commentary, spiritual/religious ideas, storytelling or other purpose of the work.	Clearly infers meaning of work Clearly explains connections between the artist's use of each important element/ principle and the meaning of the work	Explains meaning of work (mood, symbolism, attitude toward subject, social commentary, spiritual purpose, storytelling) Relates artist's use of elements and principles to ideas	Suggests meaning of work but does not explain: mood. Symbolism, attitude toward subject, social commentary, spiritual purpose, story telling	Lists mood, attitude toward subject or purpose
Art Criticism Judgment Aesthetic theories are beliefs about what makes something 'Art' Imitationalism – Art should copy the real or ideal world Formalism – Art should be an interesting arrangement of elements/ principles Emotionalism – Are should express feelings or mood Functionalism – art should serve a purpose in society	Evaluates how the work would be valued according to aesthetic theories (Imitationalism, Formalism, Emotionalism or Functionalism Supports statements with specific references to the work and its context	Explains how the work would be valued according to aesthetic theories (Imitationalism, Formalism, Emotionalism or Functionalism) Gives details, facts and clues from work that support theory	Implies an aesthetic theory but may not use the term Gives opinion of work that supports mood or content with few facts	States personal opinion

Grammar, Style, Form	Free of errors	Few minor errors in spelling or grammar	Errors in grammar and spelling without affecting clarity	Multiple grammatical errors interfere with content and readability
	Consistently uses third person in other artist's work or first person if own piece	Uses third person in other artist's work or first person if own piece	Some use of first or second person	Uses first, second and/or third person
	Uses sophisticated sentence variety, precise vocabulary	Some sentence variety, appropriate vocabulary	Little sentence variety	
	References last name only after introductory paragraph	References last name only after introductory paragraph	First and/or last name of artist used throughout essay	First and/or last name of artist used throughout essay
	All steps of critique model in correct order	All steps of critique model in correct order	All steps of critique model present but out of order	Steps of critique model may be missing or out of order

Glossary of Ceramics Terms

Bagwall – The wall on the inside of a fuel-burning kiln which deflects the flame from the ware.

Bat – A flat disc made out of plaster, wood or plastic which is affixed to the wheel head with clay or pins. Bats are used to throw pieces which would be difficult to lift off the wheel head.

Batch – A mixture of weighed materials, such as a batch of glaze or slip or a clay body.

Banding Wheel – A revolving wheel head which sits on a pedestal base. It is turned by hand and used for finishing or decorating pottery.

Bisque – Pottery which has been fired once, without glaze, to a temperature just before vitrification.

Bisque Fire – First firing without glaze. Slips can be used in a bisque firing.

Bone Dry – Completely air dried.

Burnishing – The ancient rubbing process of burnishing polishes the outside skin of a clay pot while greatly reducing its porosity. This finishing is done by hand using a stone or a metal piece which is usually embedded in a wad of wet clay that perfectly fits the burnisher's hand.

Calipers – A tool used to measure the diameter of round forms; for example, calipers are used to get lids to fit just right.

Centering – Technique to move the clay in a symmetrical rotating axis in the middle of a wheel head so you can throw it.

Chuck – A piece used to aid the potter in trimming. A chuck is a form that can hold a pot upside-down above the wheel head while the potter trims it. Chucks are thrown and bisque fired clay cylinders which are open on both sides.

Clay – Alumina + silica + water.

Clay Body – A mixture of different types of clays and minerals for a specific ceramic purpose. For example, porcelain is a translucent white clay body.

Coil – A piece of clay rolled like a rope, used in making pottery.

Compress – Pushing the clay down and together, forcing the particles of clay closer.

Composite Pots – Pots that were thrown or hand built in separate pieces and then assembled.

Cone – Pyrometric – A pyramid composed of clay and glaze, made to melt and bend at specific temperatures. It is used in a kiln to determine the end of a firing or in some electric kilns it shuts off a kiln setter.

Crazing – The cracking of a glaze on a fired pot. It is the result of the glaze shrinking more than the clay body in cooling process.

Crawing – A bare spot (from the shrinking of a glaze) on a finished piece where oil or grease prevents the glaze from adhering to pottery.

Damper – A slab of refractory clay that is used to close or partially close the flue of a kiln.

Dry-Foot – To keep the foot or bottom of a pot free from glaze by waxing or removing the glaze.

Earthenware – A low fired clay body. Glazed pottery is fired to a temperature of 1830-2010^0 Fahrenheit. Available in red or white.

Englobe – Colored clay slip used to decorate greenware or leather hard pieces before bisque firing. Clay and oxide and water.

Fire – To heat a clay object in a kiln to a specific temperature.

Firebrick – An insulation brick used to hold the heat in the kiln and withstand high temperatures.

Firing Range – The range of temperature at which clay becomes mature or a glaze melts.

Flux – A melting agent causing silica to change into a glaze.

Foot – Base of ceramic form.

Frit – A glaze material which is derived from flux and silica which are melted together and reground into fine powder.

Glaze – A thin coating of glass. An impervious silicate coating which is developed in clay ware by the fusion under heat of inorganic materials.

Glaze Firing – The final firing with glaze.

Gloss Glaze – A shiny reflective gloss.

Greenware – Unfired pottery, ready to be bisque fired.

Grog – Fired clay ground to various mesh sizes.

Kiln – A furnace of refractory posts and shelves used for stacking pottery in the kiln for firing.

Kiln Furniture – Refractory posts and shelves used for stacking pottery for firing.

Kiln Wash – Mixture of kaolin, flint and water. It is painted on one side of the kiln shelves to separate any glaze drips from the shelf.

Leather Hard – Stage of the clay between plastic and bone dry. Clay is still damp enough to join it to other pieces using slip. For example, this is the stage handles are applied to mugs.

Majolica – A low fire glazing technique. The process involves applying an opaque tin glaze to earthenware and painting it with different colored oxides.

Matt Glaze – A dull glaze surface, not very reflective when fired. It needs a slow cooling period or it may turn shiny.

Mold – A plaster shape designed to pour slip into and let dry so the shape comes out as an exact replica of the mold.

Maturing Point – The temperature at which the clay becomes hard and durable.

Opaque Glaze – Non-transparent glaze, it covers the clay or glaze below it.

Oxidation – Firing with a full supply of oxygen. Electric kilns fire in oxidation. Oxides show bright colors.

Peephole – A small observation hole in the wall or door of a kiln.

Pinch – Manipulate clay with your fingers in your palm to a hollow shape. Pinch pots are a popular beginner's project.

Plasticity – The quality of clay which allows it to be manipulated into different shapes without cracking or breaking.

Porcelain – White stoneware, made from clay prepared from feldspar, china clay, flint and whiting.

Potter's Wheel – A device with either a manual (foot powered) or an electric rotating wheel head used to sit at and make pottery forms.

Pug – To mix.

Pug Mill – A machine for mixing clay and recycling clay.

Reduction – Firing with reduced oxygen in the kiln.

Rib – A rubber, metal or wooden tool used to facilitate wheel throwing of pottery forms.

Satin Glaze – A glaze with medium reflectance between matt and gloss.

Slab – Pressed or rolled flat sections of clay used in hand building.

Slip – Clay mixed with water with a mayonnaise consistency. Used in casting and decoration.

Slurry – A thick slip.

Soaking – Maintaining a low steady heat in the early stages of firing to achieve a uniform temperature throughout the kiln.

Stacking – Load a kiln to hold the maximum number of pieces.

Stain – Oxide and water used as a colorant for bisque wear.

Stoneware – All ceramic wear fired between 2100 and 2300^0.

Transparent Glaze – Transmits light clearly.

Throwing – Creating ceramic shapes on the potter's wheel.

Vitrification – The firing of pottery to the point of glossification.

Wedging – A method of kneading clay to make it homogenous by cutting and rolling.

Suggested Sequential Projects

Projects should coordinate and not conflict with Ceramics II projects. Projects should never be repeated, instead Ceramics I projects should serve as a stepping stone for more complicated Ceramics II projects.

Suggested Outline

- Pinch Pots
- Double Pinch Pot Construction
    - Animals
- Tiles with Applique
- Drape Mold
    - Plate with Food
- Cut Open Box
    - *Introduction Slab Box*
- Greek Pottery
    - Figure Painting with Coil Construction
- Lantern
- Mardi Gras Mask
- Combination Piece

Sample Standards Integration

21st Century Skills & Career Readiness Practices

CRP6. Demonstrate creativity and innovation.

For Example – In all projects students are required to develop original artwork and are critiqued on creativity.

CRP4. Communicate clearly and effectively and with reason.

For Example – In several units students must self and peer assess clearly and with reason, based on certain criteria. Students also complete an RST addressing cross-curricular standards.

CRP10. Plan education and career paths aligned to personal goals.

For Example – In the course introduction, students are involved in discussion about possible careers in fine arts and research different artists and techniques throughout the course.

9.3.12.AR-VIS.1 Describe the history and evolution of the visual arts and its role in and impact on society.

For Example – The standard is implemented during the Unit 1 introduction and in Unit 2 during the Research Simulation Task.

9.3.12.AR-VIS.2 Analyze how the application of visual arts elements and principles of design communicate and express ideas

For Example – This standard is ongoing throughout curriculum in rubrics and critiques.

Technology Integration

8.1.12.A.2 Produce and edit a multi-page digital document for a commercial or professional audience and present it to peers and/or professionals in that related area for review

For Example – In Unit 2, students research and create a professional document in response to the RST prompt.

Interdisciplinary Connection

NJSLSA.W1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence
NJSLSA.W6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
NJSLSA.W8. Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism.
NJSLSA.W9. Draw evidence from literary or informational texts to support analysis, reflection, and research.

For Example – In Unit 2, the above standards are addressed through the Research Simulation Task. Students collaborate via Google classroom.

LGBTQ+/Disabilities and Diversity in Visual Arts Resources:

Name of unit	Name and description of new activity, strategy or content focus to be included
Unit 1: Introductions to Ceramics	Maria Martinez: Indeginous Artist, Coil pots, decorative design, use of ceramics ancient to art form connection
Unit 2: Procedures, Properties and Vocabulary of Clay: Lesson: stages of clay	Lourdes Jimenez: Mexican/ American: sustainable ceramic practices, use of unfired and fired clay bodies for work, site specific installations, inspiration in nature and surroundings Luis Avalos Jr. - Pinch Pot Connection
Unit 3: Handbuilding Techniques and Glazing: Lesson: Carved Relief Tile: “Identity Theme”	Adam Chau- Asian American Queer Artist, technique: infusion of technology into art and how through technology we can replace the human hand and still highlight techniques of past (blue on white), use of CNC machine with traditional brushes to create appearance of the human hand, commentary on the new “self portrait” in our digitial age and social medias
Unit 4: Refining, Finishing, and Glazing: Final Project: Use of all Handbuilding Techniques/ Shoe Project	Anita Fields: Native American Osage Culture: how what we wear can tell a story, show the shoe images she creates and how they reflect back to her cultural heritage, how we adorn ourselves
Unit 5: The Firing Process:	Roberto Lugo: Puerto Rican Rican/ Latinx:

Use of Porcelain: Low- High Fire Clays and types of each	“Lugo uses porcelain as his medium of choice, illuminating its aristocratic surface with imagery of poverty, inequality, and social and racial injustice. Lugo’s works are multicultural mash-ups, traditional European and Asian porcelain forms and techniques reimagined with a 21st-century street sensibility”