CERAMICS I AND II
GRADES 9-12

EWING PUBLIC SCHOOLS
2099 Pennington Road
Ewing, NJ 08618

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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.
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Course Description and Rationale

Ceramics I:  
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.

Ceramics II:  
Ceramics II is built on the foundation of Ceramics I. Students will continue to be exposed to the development of pottery historically and present day.

Ceramics II is geared to the student who is motivated to undertake very ambitious work in clay and further their understanding of ceramic art as a means of artistic expression. Ceramic II students begin to consider the possibility of art as a major or future profession. Considerable freedom is afforded students who have demonstrated proficiency in working with clay (a mastery of essential ceramic skills is assumed). The goal of this course is to provide students the opportunity to grow in a setting with ambitious peers and to produce works in clay that utilize higher order thinking in terms of expressing thoughts, ideas, feelings and attitudes.
Ceramics I: Unit 1: Introduction to Ceramics/History

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

Major Assessments:

- Teacher reinforcement, inquiry and discussion of student critique
- Quiz

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:

- 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
• Websites:
  - www.potterymaking.org
  - www.americanstyle.com
  - www.ceramicmonthly.org

Accommodations or Modifications for Special Education, ESL or Gifted Learners:

• Assist students in getting organized
• Demonstrate skills and have students model them
• Give short oral directions
• Use concrete examples to introduce concepts
• Move around the room frequently
• Make verbal instructions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS and Standards/CPIs Covered in This Unit:

1.1.12.D.1   1.3.12.D.2, 5   1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

• 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

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.

Major Assessments:

• Review clay properties and ceramic production process; take test.
• 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.

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:

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

Accommodations or Modifications:

• Assist students in getting organized
• Demonstrate skills and have students model them
• Give short oral directions
• Use concrete examples to introduce concepts
• Move around the room frequently
• Make verbal instructions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problems solving and experimentation

List of Applicable NJCCCS and Standards/CPIs Covered in This Unit:

1.1.12. D.1  
1.3.12.D.2, 5  
1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

• 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

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, coin 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

Major Assessments:

• 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
  - Personal reflection on choice
  - Quiz on hand-building methods

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:

• Clay
• Modeling tools
• Rollin pin
• Sketch book
• Slip dish
• Canvas cloth
• Plastic bag
• Guide Sticks
• Under glaze/clear glaze
• Glazes

Accommodations or Modifications:
• Assist students in getting organized
• Demonstrate skills and have students model them
• Give short oral directions
• Use concrete examples to introduce concepts
• Move around the room frequently
• Make verbal directions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:
• 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

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 under glaze/slip as a decorative finish
- Demonstrate an understanding of the varied functions of an artist, art critic, art historian, art collector and art philosopher (aesthetcian), 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.

Major Assessments:

- Assessment will be based on:
  - Completing required elements
  - Time spent on project
  - Craftsmanship
  - Creativeness
- Demonstrate various forms of textural design in the creation of their ceramic projects

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:

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

Accommodations or Modifications:

- Assist students in getting organized
- Demonstrate skills and have students model them
- Give short oral directions
- Use concrete examples and have students model them
- Move around the room frequently
• Make verbal instructions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS and Standards/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

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

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

Major Assessments:

- 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?
- 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.

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:

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

- Assist students in getting organized
- Demonstrate skills and have students model them
- Give short oral directions
- Use concrete examples to introduce concepts
- Move around the room frequently
- Make verbal instructions clear, short and to the point
- Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS and Standards/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

- With a partner, examine various clay pieces and respond to questions about:
  - Structure
  - Firing techniques
  - Glaze effects
Ceramics II: Unit 6: Hand-Building/Throwing Techniques

Why Is This Unit Important?

Throwing and hand building are at the core of all studio ceramic tactics. By means of imagination and experimentation, some of the most expert artists and craftsmen can just take these basic tactics and usually develop very imaginative functions of art. With patience, the coil pot or tall slim kind can turn out to be functions of art ideal for galleries and collectors.

Enduring Understandings:

- There are many ways to create personal expression with clay.
- All wheel-made forms are based on a cylinder.
- Manipulating the clay on the wheel requires practice and patience.
- Trial and error are part of the learning process.
- Understand the mastery in formulating and applying basic glazes.
- Understanding the difference between decorative and utilitarian ceramic pieces.
- Understand that to throw the clay you have to bend it between your finger joints.
- Understanding the similarities and differences between hand-formed and wheel thrown ceramics.
- Understand that people have used molds to shape clay objects for millennia.
- Understand throwing on the wheel is all about balance.
- The speed at which the wheel revolves and the moisture content of the clay are the most important variables in throwing.

Essential Questions:

- How does the use of the potter’s wheel affect the shape and form of pottery?
- What skills are necessary to create pottery on the wheel?
- How does this method differ from the other methods of building?
- What are the three types of molds used with soft clay slabs?
- Can abstract clay work be functional?

Acquired Knowledge:

- Knowledge of all safety rules and regulations pertaining to ceramics and demonstrate the safe use and care of materials.
- Knowledge of the vocabulary necessary and useful for creating, discussing and/or writing about ceramic pieces.
- Knowledge of finishing techniques, including glazing recipes, principles and properties.
- Knowledge related to the preparation and treatment of ceramic items before firing in the kiln takes place.
Almost anything with a firm surface can act as a mold if its angles are not too sharp or pointed. A molded piece can be changed by carving or by altering its shape.

**Acquired Skills:**

- Demonstrate craftsmanship (craft quality) and apply evaluation criteria at the advanced level.
- Application of principles of design to ceramics works.
- Produce works in clay that utilize higher order thinking skills in terms of expressing thoughts, ideas, feelings and attitudes.
- Develop the ability to become more informed about how arts and crafts were created and their place in our history and culture.
- Utilize self critique to modify structure during construction.
- Implement the proper steps in creating a piece on the wheel.
- Compare/contrast ceramic works completed using different media skills.
- List the three different types of molds that are easy to use with clay slabs.

**Major Assessments:**

- Use the wheel to throw a symmetrical form and then modify it by adding/subtracting to create an asymmetrical, complex form.
- Create a series of three repeated wheel-thrown forms of matching size and decorative finish.
- Use piercing or create openwork as a decorative finish.

**Instructional Strategies:**

- Use the wheel to demonstrate/create:
  - Complex clay form
  - Asymmetrical clay form
  - Pierced ceramic texture
- Contrast pierced with other textures in the same piece
- List/discuss: Form (complex), Texture (pierced), Balance (asymmetrical), Proportion (traditional; i.e., Asian, Greek) versus non-traditional vessel forms, Unity (juxtaposition of positive and negative spaces)
- Discuss trimming, openwork
- List/discuss decorative techniques: majolica, terra sigillatta, piercing, inlay/mishima
- Demonstrate how to use the following molds: press, sling and drape

**Instructional Materials:**

- Potter’s wheel
- Clay
• Ceramic tools (assortment)
• Chamois
• Cutting wire
• www.earthdaybags.org
• www.emptybowls.nce
• www.mason.gmu.edu

Accommodations or Modifications:

• Assist students in getting organized
• Demonstrate skills and have students model them
• Give short oral directions
• Use concrete examples to introduce concepts
• Move around the room frequently
• Make verbal instructions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

• Produce sketches of various patterns to be incorporated into an original ceramic design.
• Observe demonstration of technique by the teacher and take notes.
• Glaze their work in order to enhance structure.
• Self critique while planning and executing their projects.
Ceramics II: Unit 7: Exploring the Creative Process

Why Is This Unit Important?

Clay artists, like other visual artists, often explore a ‘big idea’ or theme, by creating a set of works that are connected in some way. Looking at natural shapes and forms, from a sea shell to a mountain profile, can provide countless new ideas for designs and decorative treatments. Some artists are inspired by other artists’ creations.

Enduring Understandings:

- Discern that some methods are better suited for certain constructions.
- Discover that exploration is essential for creativity.
- Self confidence is attained through successful production.
- There are many ways to create personal expression with clay.
- Trial and error are part of the learning process.
- Great art requires skills and discipline to turn notions into a quality product.
- The artistic process can lead to unforeseen or unpredictable outcomes.
- Understand the importance of line and how they can be used in ceramic work.

Essential Questions:

- What scientific principles are used in throwing clay on the potter’s wheel?
- What are personal symbols and how do they convey meaning on pottery?
- What texture and design will be appropriate to enhance a particular work of art?
- Why do ceramic artists choose certain methods for their creative expression?
- What construction method is best suited to express my artistic statement?
- What strengths do I possess to express my artistic vision?

Acquired Knowledge:

- Know how to judge the effectiveness of different ways to use visual characteristics in conveying ideas.
- Know how to use symbols, ideas and themes that demonstrate knowledge of contexts and cultural and aesthetic values to communicate intended meaning.
- Know how to record and develop ideas for content over time.
- Know how to transform ideas to 3-D design appropriate for ceramics.

Acquired Skills:

- Demonstrates the ability to move between different techniques of pottery making.
- Design and create a ceramic piece which demonstrates the connection between personal expression and wheel throwing techniques.
• Create original works of art that demonstrate a connection between personal expression and the intentional use of art materials, techniques and processes.
• Apply comprehension and skill in incorporating the elements of art and principles of design to generate multiple solutions and effectively solve a variety of visual art problems.

Major Assessments:
• Continue to make functional objects (bowls, plates, etc.) using the potter’s wheel.
• Learn advanced throwing techniques such as throwing off the hump, throwing multiples and throwing lids.

Instructional Strategies:
• Discuss and list specific ceramic pieces such as slab, pinch and coil and combinations of those techniques.
• Utilize the potter’s wheel to reflect those characteristics.
• Discuss/provide handout of art criticism: introduction, description, analysis, interpretation, judgment (imitationalism, formalism, emotionalism, functionalism), grammar, style and form.

Instructional Materials:
• Clay
• Clay tools
• Glaze
• Potter’s wheel
• Chamois
• Cutting wire
• Sponge
• Art Criticism Scoring Rubric
• www.pottermaking.org
• www.americanstyle.com

Accommodations or Modifications:
• Assist students in getting organized
• Demonstrate skills and have students model them
• Give short oral directions
• Use concrete examples to introduce concepts
• Move around the room frequently
• Make verbal instructions clear, short and to the point
• Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation
List of Applicable NJCCCS and Standards/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences:

• Utilize sketchbook to plan and design ceramic pieces
• Utilize Art Is H.O.T. (Higher Order Thinking)
• Show students a decorative/carved ceramic piece(s)
• Students will respond to questions about the piece(s)
• Describe the decorations you see on this pottery. (Description)
• What do you think is the meaning of the patterns? (Interpretation)
• How was this piece constructed? What clay technique was used? (Analysis)
• What was the purpose of this piece? (Interpretation)
Ceramics II: Unit 8: Art in a Historical and Cultural Context

Why Is This Unit Important?

The cultural expectations and aesthetic values associated with ceramic artworks vary across time and culture. Practices of working with clay and ceramics date back to the earliest civilizations and many of these practices are still relevant.

In early societies and cultures, clay was often used for making objects basic to everyday life. Utilitarian objects and other less utilitarian works made in clay, such as sculptures and relief panels, embodied and continue to embody for contemporary audiences the cultural values and beliefs of the people who make them. These works offer contemporary audiences insights into the cultural production of the past and present. They also offer imaginative and aesthetically beautiful interpretations of working in clay. In these works, we can understand the importance of conventions, traditions and the communication of messages and meanings within ceramic forms. We can also note how the past is reinterpreted in works that question the traditions and power relations of previous practices.

Enduring Understandings:

- Artists both influence and are influenced by the world in which they live.
- Innovations continue to press ceramic art forward, but the early techniques endure.
- Folk artists and artisans still work in traditional ways and use some of the old methods such as rehydration, slaking, slip and levigation.
- Greeks were the first to paint on clay pots as a way of telling a story.
- During the Greek classical period, ceramic artists painted elegant pots with monsters, heroes and mythological figures.
- Moche artists applied fine lines to pottery with a technique known as slip painting.
- Mayan artists used basic shapes and relied heavily on lines as an expressive feature.
- Greek, Moche and Mayan artists mastered the difficult art of painting a narrative scene on the outside of a round pot.

Essential Questions:

- What are some of the differences between two ceramic objects that exemplify different times, societies and environments?
- What is the significance of Greek philosophy that relates to aesthetics (idea of beauty, etc.) to present-day aesthetics?
- What are some of the ways contemporary ceramists innovate and extend traditions and conventions with the use of various casting methods?
- How do classical motifs and classical forms play on historical inferences?
Acquired Knowledge:

- Know that the relationship of the arts and culture is mutually dependent; culture affects the arts and the arts reflect and preserve culture.
- Know that culture affects self-expression, whether we realize it or not.
- Know that every artist has a style; every artistic period has a style.

Acquired Skills:

- Identify primitive ceramic techniques.
- Recognize various milestones in ceramic history.
- Recognize how various ceramic structures were constructed.
- Be aware that cultural context and history affects what is beautiful.
- Articulate the connection between the ceramic forms and functions in their historical and cultural context.

Major Assessments:

- Student will plan and design ceramic pieces consistently sketching their ideas prior to beginning construction.
- Ceramic pieces include: Grecian Goblet, Thrown Casserole Dish, Textured Leaf and Ceramic Decorative Birds

Instructional Strategies:

- Review briefly the Greek ideal of beauty and the Roman ideal of realism and compare with contemporary ideals.
- Compare Greek sculpture from one period to another, showing its evolution.
- Make a Greek goblet/vase according to the shapes of that era; use black and brick underglaze and sgraffito to illustrate a Greek myth.
- Discuss advent of theater and drama.

Instructional Materials:

- Clay
- Assorted ceramic tools
- Cutting wire
- Sponge
- Potter’s wheel
- Glaze
- Chamois
Accommodations or Modifications:

- Assist students in getting organized
- Demonstrate skills and have students model them
- Give short oral directions
- Use concrete examples to introduce concepts
- Move around the room frequently
- Make verbal instructions clear, short and to the point
- Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS and Standards Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

- Students will view three ceramic artworks (casseroole dish with clay loop handles; thrown bottle; goblet) that are labeled A, B and C. Students will complete a chart (attached) to compare/contrast the works.
- Critique own work and that of others using Ceramics Critique Form (attached).
Ceramics II: Unit 9: Contemporary Ceramists/Careers in Ceramics

Why Is This Unit Important?

Contemporary applications in ceramics are constantly changing. New industrial and high technology uses are being found and ceramists, artists and designer/makers are exploring new expressive forms and meanings.

In contemporary societies that are becoming increasingly synthetic and depersonalized, ceramics offers students opportunities to reinterpret the world and develop a sense of personal satisfaction and achievement. It encourages empathy with the properties of natural materials and an opportunity to experience the deep pleasure and satisfaction which comes from transforming these materials into objects which have personal meaning and significance. Ceramics provides challenging work opportunities for students with knowledge, skills and understanding in areas including studio and industrial ceramics, ceramic research, engineering and product design.

Enduring Understandings:

- Ceramists increasingly feel free to push against and through or simply ignore artificial boundaries between so called art and craft created by Western, and especially American, combination of art historians and dealers.
- Whether an object is utilitarian or decorative, clay has been used for centuries to express aesthetic ideas.
- Clay covers all history and all our contemporary life.
- There is something so significant and fascinating about the creative process with the primitiveness of clay and that seems to be within us as human beings.
- Effective communication skills are necessary to convey meaning and understanding to others.

Essential Questions:

- What jobs exist in the ceramics industry?
- What type of skills/education is needed to work in the ceramics industry?
- What is the difference between skilled workers and production workers?
- What is the best way to advance in the ceramic industry?
- How has contemporary ceramics evolved over the last decade?
- How do I decide or make choices?
- How do I best communicate?

Acquired Knowledge:

- Many jobs in the ceramics industry can be learned in a few days or weeks.
- Many people train for a career in ceramics through apprenticeship.
• Ceramic decorators can gain recognition of their skills by progressing to more detailed work.
• Self-employed craft workers set their own hours, depending on the availability of work.
• Where handwork is done in the shaping, forming and decorating processes, workers must be able to work rapidly and skillfully. They often need some artistic talent.
• The ceramic design process is fundamental to technology and engineering.
• Personal attitudes, behaviors, knowledge and skills promote self awareness, personal responsibility and self-direction.

Acquired Skill:

• Identify special workers in the ceramic industry.
• Identify what jobs need more formal training in the ceramic industry.
• Identify the process of making ceramic products.
• Describe the pressing process in ceramics.

Major Assessments:

• Examine careers related to ceramics. Students will select one of the careers (or a clay-related career).
• Gather as much information as possible. Prepare a basic data table about the career (e.g., education, salary range, skill or experience required, best geographic location) and then write a concise description of the job itself. Add analysis of whether or not you might be well suited to the demands of the career. Conclude with an objective evaluation of the pros and cons of this as a career choice.

Instructional Strategies:

• Discuss and investigate with students the roles and relationships of the concepts of work, world and artist/ceramist/sculptor/designer/maker.
• Place the following notable clay artists on the board: Bernard Leach, Shoji Hamada and Peter Voulkos.
• Discuss with students who/what inspired each artist or what influenced each artist.
• Discuss how each stretched their perceptions of clay beyond the functional, where it was traditionally anchored in the handcraft category, thus opening doors to innovation and creativity for a whole new generation of clay artists.
• Discuss/list ceramic pottery maker related skills.
Instructional Materials:

- www.theclaystudio.org
- www.studiopottery.com

Accommodations or Modifications:

- Assist students in getting organized
- Demonstrate skills and have students model them
- Give short oral directions
- Use concrete examples to introduce concepts
- Move around the room frequently
- Make verbal instructions clear, short and to the point
- Make assignments that call for original work, independent learning, critical thinking, problem solving and experimentation

List of Applicable NJCCCS/CPIs Covered in This Unit:

1.1.12. D.1  1.3.12.D.2, 5  1.4.12.B.1

Suggested Learning Experiences and Instructional Activities:

- Students work on teams playing a career ‘game show’. The goal is to be the first team to correctly identify information about each career that is listed when the teacher holds up and reads a large card.
- Cards are printed with job description, specific skills, estimated salary, educational experience, etc.
- Compare/contrast two or more ceramic careers considering such factors as: education, skills, tool/materials and availability of work.
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.

<table>
<thead>
<tr>
<th>What culture is each work from?</th>
<th>Work A</th>
<th>Work B</th>
<th>Work C</th>
</tr>
</thead>
</table>

Which characteristics helped you identify the culture? How do those characteristics relate to the function of the piece?

<table>
<thead>
<tr>
<th>Work A</th>
<th>Work B</th>
<th>Work C</th>
</tr>
</thead>
</table>

On the basis of which culture was chosen and the subject matter, when do you think the work was created? WHY?

<table>
<thead>
<tr>
<th>Work A</th>
<th>Work B</th>
<th>Work C</th>
</tr>
</thead>
</table>

What was life like at that time and place and HOW did that influence the artist?

<table>
<thead>
<tr>
<th>Work A</th>
<th>Work B</th>
<th>Work C</th>
</tr>
</thead>
</table>

How was this work valued when it was created as compared to how it is valued today?

<table>
<thead>
<tr>
<th>Work A</th>
<th>Work B</th>
<th>Work C</th>
</tr>
</thead>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>What stands out the most when you first see the piece?</td>
<td></td>
</tr>
<tr>
<td>Explain why.</td>
<td></td>
</tr>
<tr>
<td>As you keep looking, what else seems important?</td>
<td></td>
</tr>
<tr>
<td>Explain why.</td>
<td></td>
</tr>
<tr>
<td>Has contrast been used in this piece and how?</td>
<td></td>
</tr>
<tr>
<td>What leads your eye around this piece?</td>
<td></td>
</tr>
<tr>
<td>Describe the form of the piece.</td>
<td></td>
</tr>
<tr>
<td>What tells you about the building techniques?</td>
<td></td>
</tr>
<tr>
<td>What do you feel was the intent for the piece?</td>
<td></td>
</tr>
<tr>
<td>What would you use for the piece?</td>
<td></td>
</tr>
<tr>
<td>What other things interest you about this piece?</td>
<td></td>
</tr>
<tr>
<td>Overall interpretation based on the answers above.</td>
<td></td>
</tr>
</tbody>
</table>

Overall score from 1-10 (with 10 being the highest): ____________________
## Art Criticism Scoring Guide

<table>
<thead>
<tr>
<th>Criteria</th>
<th>4 Advanced</th>
<th>3 Proficient</th>
<th>2 Nearly Proficient</th>
<th>1 Progressing</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Art Criticism Introduction</strong></td>
<td>• Clearly states plan to critique another artist’s work or to explain the goal of a personal piece</td>
<td>• States plan to critique another artist’s work or to explain the goal of a personal piece</td>
<td>• Artist’s work or a personal piece mentioned</td>
<td>• Artist’s name or title of work listed</td>
</tr>
<tr>
<td>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.</td>
<td>• All available information given</td>
<td>• Most available information given</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Art Criticism Description</strong></td>
<td>• Logical, coherent, complete, detailed description of what is seen in the work</td>
<td>• Logical, coherent, complete description of what is seen in the work</td>
<td>• Complete description of what is seen in the work but slightly unorganized</td>
<td>• Random mention of one or two details seen in the work</td>
</tr>
<tr>
<td>‘Shopping List’ sentences of everything seen in the artwork</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Art Criticism Analysis</strong></td>
<td>• Considers each element and principle to determine which are most important in the work</td>
<td>• Considers elements and principles to determine which are most important in the work</td>
<td>• Lists elements and principles used</td>
<td>• Partially lists elements and/or principles</td>
</tr>
<tr>
<td>Elements (Line, Shape, Form, Color, Texture, Space, Value, Principles (Balance Emphasis, Contrast, Rhythm, Unity, Proportion)</td>
<td>• Explains in detail, how and where each important element and principle is used in the work</td>
<td>• Explains how and where each important element and principle is used in the work</td>
<td>• Tells how or where some elements and principles are used in the work</td>
<td></td>
</tr>
<tr>
<td><strong>Art Criticism Interpretation</strong></td>
<td>• Clearly infers meaning of work</td>
<td>• Explains meaning of work (mood, symbolism, attitude toward subject, social commentary, spiritual purpose, storytelling)</td>
<td>• Suggests meaning of work but does not explain: mood. Symbolism, attitude toward subject, social commentary, spiritual purpose, storytelling</td>
<td>• Lists mood, attitude toward subject or purpose</td>
</tr>
<tr>
<td>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.</td>
<td>• Clearly explains connections between the artist’s use of each important element/ principle and the meaning of the work</td>
<td>• Relates artist’s use of elements and principles to ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Criteria</td>
<td>4 Advanced</td>
<td>3 Proficient</td>
<td>2 Nearly Proficient</td>
<td>1 Progressing</td>
</tr>
<tr>
<td>------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Art Criticism Judgment</td>
<td>• Evaluates how the work would be valued according to aesthetic theories</td>
<td>• Explains how the work would be valued according to aesthetic theories</td>
<td>• Implies an aesthetic theory but may not use the term</td>
<td>• States personal opinion</td>
</tr>
<tr>
<td>Aesthetic theories are beliefs about what makes something ‘Art’</td>
<td>(Imitationalism, Formalism, Emotionalism or Functionalism)</td>
<td>(Imitationalism, Formalism, Emotionalism or Functionalism)</td>
<td>Gives details, facts and clues from work that support theory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Supports statements with specific references to the work and its context</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Imitationalism – Art should copy the real or ideal world</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Formalism – Art should be an interesting arrangement of elements/principles</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emotionalism – Art should express feelings or mood</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functionalism – Art should serve a purpose in society</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grammar, Style, Form</td>
<td>• Free of errors</td>
<td>• Few minor errors in spelling or grammar</td>
<td>• Errors in grammar and spelling without affecting clarity</td>
<td>• Multiple grammatical errors interfere with content and readability</td>
</tr>
<tr>
<td></td>
<td>• Consistently uses third person in other artist's work or first person if own piece</td>
<td>• Uses third person in other artist's work or first person if own piece</td>
<td>• Some use of first or second person</td>
<td>• Uses first, second and/or third person</td>
</tr>
<tr>
<td></td>
<td>• Uses sophisticated sentence variety, precise vocabulary</td>
<td>• Some sentence variety, appropriate vocabulary</td>
<td>• Little sentence variety</td>
<td>• First and/or last name of artist used throughout essay</td>
</tr>
<tr>
<td></td>
<td>• References last name only after introductory paragraph</td>
<td>• References last name only after introductory paragraph</td>
<td>• First and/or last name of artist used throughout essay</td>
<td>• Steps of critique model may be missing or out of order</td>
</tr>
<tr>
<td></td>
<td>• All steps of critique model in correct order</td>
<td>• All steps of critique model in correct order</td>
<td>• All steps of critique model present but out of order</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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.

**Crawling** – 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°F 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°F.

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.