**The Moche Culture**

**Unit Description:**

During this unit we will be covering the Pre-Columbian Moche culture in Math, World Languages, and Art. The Moche culture flourished between 100-800 CE in modern-day Peru encompassing the Atacama Desert and the northern Andes region. We will be introducing the students to different aspects of the Moche culture through our different content areas. In World Languages students will be learning about the culture and how they used imagery on their ceramics to communicate different cultural beliefs. Then students will be asked to create their own ceramic design that will communicate something from their own culture. In Math the students will be learning about the Moche’s tomb designs. Then they will be asked to calculate the surface area and volume of two hypothetical tombs. In Art students will be learning about the Moche burial practices and the adornments within the tombs so that they can create a painting depicting their own burial. They will have to decide a status of themselves in terms of the Moche burial statuses and then use imagery and painting techniques to communicate that status and something about themselves. At the end of the unit the students will be asked to complete a final summative assessment that will require them to give a presentation of their learning.

**Inquiry Questions:**

How can we come to understand a culture based on their imagery and spiritual practices?

Can we learn more about our own culture through comparison to past cultures?

**Possible Misconceptions:**

Students might think that pre-Columbian societies had not developed complex cultures. (The primitive ideal)

 Students might think that ancient civilizations in America were capable of great engineering feats.

Students might think that the art from the Moche culture doesn’t influence archeological theories about the culture.

Students might erroneously believe that a doubling of the dimensions of a tomb will double its volume but the relationship is more complex than that.

**Summative Assessment:**

Students will be asked to give a presentation as if they were a future archeologist who had come upon their tomb. They must describe the design and mathematics behind the tomb design. Also, they will talk about the cultural influences represented by their encounter. Then they will explore the inside of the tomb and talk about the burial they found at the bottom. They will explain the cultural beliefs of the deceased based around the pottery and offerings found within the tomb. They will talk about the status of the deceased based on the adornments and arrangement of the tomb.

**ART**

**Project:**

**Burial painting**

Students will be asked to create an eleven by fourteen inch painting that depicts an aerial view of what their burial might look like if they had been a part of the Moche culture. They will be introduced to different types of Moche burials based on the status of the deceased and what adornments are included in the different burials based on these statuses. When they create their painting students will have to decide on a status they might have had or wanted to have in the Moche culture to decide on which adornments to include in their paintings to communicate this status. They will also be introduced to painting techniques like, dry brush, flat wash, and graded wash and will be asked to uses one or more of these in their final painting.

**Standards:**

 Standard One- Comprehend 3. Art and design have purpose and function

 Standard Two- Reflect 3. Interpretation is a means for understanding and evaluating works of art

 Standard Three- Create 2. Assess and produce art with various materials and methods

 Standard Four- Transfer 2. Communication through advanced visual methods is a necessary skill in everyday life

**Objectives:**

Given images and information about Moche burials, students will be able to identify the adornments used in burials and why.

Given context of Moche burials, students will be able to plan a painting focused on specific adornments that would be used for their personal burial.

Using acrylic paint, students will be able to create a painting using painting techniques like dry brush, flat wash, and graded wash.

Using completed artwork, students will be able to identify how their peers used painting techniques and imagery to communicate the status of themselves in a pre-Columbian Moche culture.

 **Concepts:**

Culture, symbols, composition, intent

**Essential Understandings:**

A **culture** can *influence* the meaning behind **symbols.**

The **composition** of an artwork *communicates* its **intent**.

**Formative Assessments:**

One:

 Ticket out the Door- Students will be asked to identify one adornment found in each tomb of the Lord of Sipán, the Owl Priest, and a common citizen of Sipán and how that adornment communicates the status of the person buried. This will be done on just a half sheet of paper and turn into me before the students leave the class. This will let me know if my students understand the concepts behind why the Moche buried their dead with specific adornments. Also it will give me an opportunity to re-address any concepts that a majority of the students didn’t understand so that they can better plan and create their final painting. I objective I will be assessing is, given images and information about Moche burials, students will be able to identify the adornments used in burials and why.

Two:

Student Conference- Students will be required to have a short five minute one-on-one conference with me about their plan for their final painting. They will need to show me the adornments they will be highlighting in their piece to show the status they had chosen for themselves in a Moche burial. They will also need to tell me how they have personalized these adornments to communicate something personal. This will give me an idea of where my students are in the planning process. It will also give me a chance to give them feedback and help them make improvements to their plan to better communicate their ideas. The objective I will be assessing is, given context of Moche burials, students will be able to plan a painting focused on specific adornments that would be used for their personal burial.

**Math**

**Project:**

**Tomb building exercise**

You have been asked to build two tombs for a citizen and his son who recently passed away. The adult individual was relatively well respected in the village and therefore he and his son deserve tombs made out of rather exotic and expensive wood. The shape of the tomb needs to be a rectangular prism (cuboid). The father measured 5ft 10 inches and the tomb needs to be four inches longer than the body. In terms of width, the tomb must be exactly two feet wide and 1.5 feet deep. You need to find a tree that will allow you to build the tomb and hence, you need to calculate the surface area of the tomb (eight faces).

 His son was half the height of his father and his tomb needs to have exactly half the dimensions of his father’s (the extra length is proportional to the size of the body so there will only be an extra two inches in length). You also want to calculate the surface area of the son’s tomb.

 As part of your assignment, you were also asked to calculate the volume of both tombs. To be thorough, you decide to develop a way to relate the two calculated quantities (volume to surface area).

**Standards:**

1. Number Sense, Properties, and Operations

2. Quantitative reasoning is used to make sense of quantities and their relationships in problem situations

 The tomb building exercise hits on a number of Common Core Math standards. Specifically, relating surface area to volume of the three dimensional rectangular prism (the tomb) addressed quantitative reasoning about quantities (area and surface) and their relationship.

2. Patterns, Functions, and Algebraic Structures

1. Functions model situations where one quantity determines another and can be represented algebraically, graphically, and using tables

2. Quantitative relationships in the real world can be modeled and solved using functions

3. Expressions can be represented in multiple, equivalent forms

Developing a mathematical equation relating surface area to volume addresses this standard. Additionally, the exercise will require students to work on multiple representations (graphical, mathematical).

4. Shape, Dimension, and Geometric Relationships

3. Attributes of two- and three-dimensional objects are measurable and can be quantified

4. Objects in the real world can be modeled using geometric concepts

 Because the exercise deals with three dimensional shapes, it will also address Standard 4, which deals with geometrical figures.

**Big ideas/ Essential Understandings:**

Computing surface areas and the volumes of common 3D shapes requires a good understanding of units, a basic understanding of exponents, and relies on the ability of the student to visualization these quantities. Relating these two quantities is also important as it requires abstract thinking and requires students to relate the two quantities using algebra and a quantitative function.

**Formative Assessments:**

To ensure students are progressing in a satisfactory manner in their project, several formative assessment techniques will be utilized. In addition to observing students developing their project (i.e.; building the tombs and calculating surface area and volume), students will be asked to create diagrams of the tombs and will include dimensions. The diagram will allow for an assessment of appropriate progress. Last, I will be checking with students on a daily basis to make sure that adequate progress is taking place.

**World Languages**

**Big Ideas/Essential Understandings:**

Investigating and interpreting the cultural evidence left behind by a civilization helps me understand the nature of its culture.

 Coming to a consensus about how a past group of people lived, what they believed, and why they did what they did comes from collaboration and discussion of the evidence they leave behind.

**Standards:**

Grade Level: Intermediate-Mid

Standard: 2. Knowledge and Understanding of Other Cultures

**Evidence Outcomes:**

Students can…

a. Investigate and explain how cultural perspectives contributed to the civilization of the Moche, as represented by their ceramic artwork.

b. Think about their own culture and how they may represent in with the tools the Moche had at their disposal.

This means they…

1. View and interpret the Moches’ painted ceramic art, the most well-preserved product of their civilization.

2. Hypothesize about what the culture was like:

* Religious Practices
* Life and Death
* Family/ Sexuality
* Values

3. Discuss how US culture is represented in its products (e.g. reality T.V., McDonalds, music and film, etc.

**Formative Assessments:**

One: In showing a slideshow of Moche ceramics, I will try to involve everyone in a Socratic discussion about what their culture may have been like. I will be looking for critical thinking and originality. The goal is to facilitate them towards coming to a general consensus about what the Moche were like regarding Religious Practices, Life and Death, Family/ Sexuality and Values (1-2).

Two: The students will work in groups to create a modern U.S. “ceramic” piece in the vein of the Moche, using paper and colored pencils and citing what they think are the most important representations of our culture. I will be looking for their consideration of the factors we used to assess the Moche culture (3).