

Video #1 Arts Integration Concepts

Receptive Arts Activity- Existing works of Art carry with them elements of History, Science, Math, and Language Arts. These elements are built into the content, medium/form, and the historical/cultural context of the creator(s). Students observe curriculum connections in a work of art (visual, music, dance, drama, storytelling, etc.). This activity can be framed around a Document Based Question (DBQ) format or similar forms of inquiry.

Use these guiding questions to initiate discussion and research of a particular work of Art. Not all questions will apply to every work of Art, so use what is relevant and forget the rest.

Who are the creators and/or performers

What are their names?

What is their origin (location, history, ethnicity, culture)?

Do they make their entire living from arts activities or do they have additional sources of income?

What instruments/tools/materials were used to create this work of Art?

Musical instruments for music?

Materials and tools for visual arts?

Costumes, set, etc. for theater and dance?

Who is the audience (or the non performing participants) for this work of Art?

What is their socio-economic status?

How are they participating (viewing, praying, dancing, etc.)

Did they pay for this experience or is it free? Are there additional funding sources that supported this work of art aside from the participating audience?

Where is the audience when they are experiencing the Art (concert hall, gallery, theater, home computer, ipod, cell phone, etc.)?

What is the purpose of this work of Art?

Why is the audience participating?

What motivated the artist(s) to make this Art?

Is the art used for dancing, praying, selling, promoting, etc.?

The careful examination of a work of art, within the real world context of its creation and audience, provides a model that will guide students in the next phase of arts-based learning: ***Expressive Arts Activities.***

Expressive Arts Activity- Students present their accumulated knowledge of a particular curriculum area in an original work of Art. Just as teachers ask their students to respond to knowledge through writing an essay or taking a multiple choice test, they can also guide help students respond by drawing a picture, choreographing a dance, composing music, writing a script, making a short film or animation, etc... In each case, the elements

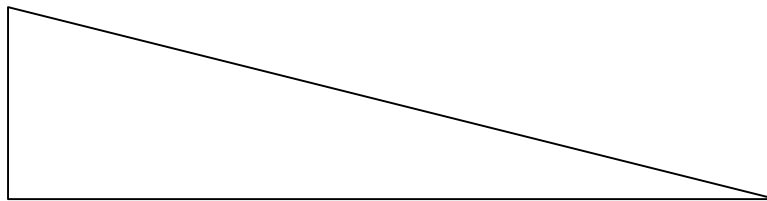
of each artistic discipline become the vehicle for representing knowledge. For example, a painter will use line, shape, color, and texture to represent knowledge while the composer will use pitch, rhythm, harmony texture, and instrumentation to represent knowledge.

Representating Knowledge and Ideas in Multiple Forms

This is a very old idea. The ancient Greek philosopher Aristotle believed that every thing in the world had two components: its “essence” and its “accidence.” The essence was seen as the unchangeable, core identity of the thing being discussed. Its accidence was seen as the changeable expression of the core identity.

For example, a right triangle is a three sided figure with one 90 degree angle. The phrase, “a three sided figure with one 90 degree angle,” expresses the core concept of a right triangle with words in the English Language and some Arabic numerals.

We can also express the essence of a right triangle would be the following image...



This visual representation conveys the essence of the right triangle with lines and angles, not words and numerals.

Furthermore, we can express the essence of a right triangle with the following algebraic equation...

$$A^2 + B^2 = C^2$$

The Pythagorean Theorem describes the right triangle in the form of mathematical variables and operation signs.

The phrase, the picture, and the equation are three diverse expressions of the same core concept. The accidence is different, but the essence remains the same.

Why do we need diverse expressions of core concepts?

Each expression (or accidence) has strengths and weaknesses. The picture of a right triangle would be very useful in visualizing its application in the creation of a new building, however, it would not serve to calculate the exact length of the materials needed to build such a structure. The English phrase would be useful in a geometry lecture to English speaking students, however it would not be useful to students who speak other languages. The mathematical equation is useful in determining exact numerical values,

but does not help someone visualize the beauty contained in a well conceived piece of architecture.

Let's take this one step further. If we know how to express the essence of a right triangle in words, pictures, and mathematical variables, how would we express its essence in sound? How could we use pitch, rhythm, dynamics, texture, etc. to musically describe a right triangle?

One group of Jr. High students used the Pythagorean Theorem as the model for a musical expression. They saw a correlation between mathematical variables expressed with alphabet letters and Western Musical Notation also expressed with alphabet letters. One student made the suggestion to...

"...play two A's, two B's, and two C's."

This covered the one-to-one translation of mathematical variables into musical notes. However, he did not suggest a sound for the operation of symbols of "+" and "="." Another student suggested that, while the mathematical variables were represented by a pitched instrument, the operation signs could be represented by the orchestral percussion instrument, the triangle. "+" would be represented by a single strike of the triangle, while "=" would be represented by a short, sustained roll of the triangle.

What does a musical expression communicate about a triangle? A right triangle, within the context of a towering European cathedral (like Chartres in France) solicits an emotional response that is not inherent in its pure geometric form or its mathematical expression. A musical phrase can effectively convey such emotional content.

Strategies for Choosing Artistic Representations of Knowledge.

Artistic Symbols (whether from Music, Visual Arts, Theater, Dance, or Media Arts) come in three broad categories. They are as follows...

1. **Imitation**- The imitative representation mimics some element of the thing being represented. For example, a composer may choose to represent a rainstorm with a variety of percussion instruments that mimic the sounds of light rain, heavy rain, thunder, and wind. This works well in musical composition, as long as the subject of the imitation makes a discernable sound. A composer cannot mimic the sound of sunshine, because there is no sound to imitate. Similar advantages and disadvantages in imitation are found in all art forms.
2. **Culture**- The cultural representation communicates the specific historical, ethnic, and social elements of the subject. This allows the teaching artist to place the art work within a specific context.
3. **Symbols**- Symbolic representation ties a specific artistic gesture to the subject regardless of its potential imitative qualities or cultural content. Film scores are a fine example of this type of representation. The composer John Williams wrote a repeating two note pattern that represents the man eating shark in the movie

“Jaws.” Sharks don’t make this sound, so it is not imitating the shark. Sharks don’t have a particular cultural context. Now this musical motif, without any help from video, automatically creates an image of a nasty shark in the minds of anyone who saw the movie.

Though I have cited primarily musical examples, each art form uses its own elements to represent knowledge, ideas, and things.

The Tone Poem/Musical Picture

A musical work that represents non musical content is commonly known as a “tone poem” in the Western Classical Music Tradition. Below is a brief outline of the steps necessary to create a tone poem with students.

1. Identify the elements of your musical picture and research their characteristics and relationships between each other.
2. Choose sounds that represent each element.
3. Organize the sounds in a way that reflects the relationships between these elements. Create a large visual representation of this sequence of sounds for all musicians to follow.
4. Play a “rough draft” of the musical picture.
5. Make necessary edits in a collaborative discussion.
6. Play final draft of the musical picture.

Turn to the example of the musical picture created by Jr. High students in Mt. Morris, NY for an illustration of this process.

A live performance of a musical picture (as opposed to a digital composition) usually requires teams of musicians that are led by a conductor. This conductor uses hand gestures to signal musicians to start, stop, increase or decrease volume, etc.. Ideally, this conductor should be a student, but the musical work generated by students may be too complex for a student conductor. In this case the teacher or teaching artist should conduct the work for greatest effect.

The musical picture may be presented in classroom forums, public performances and/or multi-media venues.