Authentic Connections: Interdisciplinary Work in the Arts
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The purpose of this document is to assist and support educators in interdisciplinary work and to clarify how the arts can be taught with integrity through the interdisciplinary content standards. It has been prepared for teachers in all disciplines, teaching artists, administrators, teacher educators at the college level, and parents.

Why is interdisciplinary work in the arts important?

An interdisciplinary focus promotes learning by providing students with opportunities to solve problems and make meaningful connections within the arts and across disciplines. Interdisciplinary curriculum encourages students to generate new insights and to synthesize new relationships between ideas. The Consortium recommends that arts specialists seek a balance between disciplinary and interdisciplinary learning emphases in their classrooms and in their work with other teachers in schools.

The Standards:

**Dance Content Standard #7:** Making connections between dance and other disciplines.

**Music Content Standard #8:** Understanding relationships between music, the other arts, and disciplines outside the arts.

**Theatre Content Standard # 6:** Comparing and integrating art forms by analyzing traditional theatre, dance, music and visual arts, and new art forms.

**Visual Arts Content Standard #6:** Making connections between visual arts and other disciplines.

The National Standards for Arts Education include dance, music, theatre, and visual arts standards that are interdisciplinary in nature. Other disciplines outside the arts have standards that relate to dance, music, theatre, and visual arts.
The Consortium of National Arts Education Associations supports quality interdisciplinary learning in all disciplines that

- is student-centered
- maintains the integrity of each discipline
- increases depth of understanding and student achievement
- aligns with established learning standards
- provides a balance among the disciplines being studied
- incorporates multiple intelligences and learning modalities
- sets clear expectations for student work
- encourages formative and summative assessment
- develops higher order thinking skills and problem solving
- involves community resources in and out of school
- respects and encourages multiple solutions to problems
- acknowledges and is sensitive to the diversity of learners and society.

Elements essential for interdisciplinary learning with the arts include

- learning experiences that promote meaningful connections between and among disciplines
- in-depth study of the content of the disciplines, using accurate and carefully-selected examples, materials, and terminology
- involvement of students in processes that are authentic to the arts (creating, performing, and responding)
- forms of assessment that are compatible with the arts.

“Disciplinary integration in art is educationally desirable not only because it represents the actual ways in which artists and arts-related professionals experience art, but because it is an effective way to underscore and reinforce what is important.”
*Stephen Mark Dobbs, 1998*

“Interdisciplinary curriculum should be an expansion of, not a substitute for, a sequential comprehensive curriculum in each subject discipline.”
*Connecticut Guide to Interdisciplinary Curriculum Development, 2001*
Criteria

The following criteria can be used by teachers to guide the creation of new interdisciplinary units or to evaluate plans or units designed by others. The criteria draw attention to the nature of learning in the arts and the strength of the connections between the arts and other disciplines. Questions based on these criteria can help teachers identify elements that are essential for interdisciplinary learning with the arts.

Enabling Condition

For many teachers, interdisciplinary work is satisfying but challenging in that it requires new ways of thinking about content, students’ engagement, and often, collaborative planning with other teachers. The following conditions enable teachers to create and implement strong interdisciplinary projects:

- common planning time or sufficient opportunities to meet with other teachers
- access to local, state, and national standards and curriculum in the disciplines
- flexible scheduling
- appropriate resources
- ongoing professional development
- curriculum development
- community support and involvement
- administrative support and involvement

Each arts area has made recommendations for “opportunities to learn standards” as defined in the Goals 2000: Educate America Act. The purpose is to ensure that no young American is deprived of the chance to achieve the content and performance or achievement standards established in each discipline. Arts educators may want to consult these Opportunity to Learn Standards for recommendations that also enable interdisciplinary work in the arts.

Opportunity to Learn Standards for Arts Education is a joint publication by the Consortium of National Arts Education Associations and is available from each member association.

**Checklist:**

In the interdisciplinary unit of study,

- Are meaningful connections made between or among the disciplines?
- Is in-depth learning promoted?
- Are high quality examples from the art(s) and other discipline(s) used?
- Is appropriate terminology used?
- Are the artistic processes of creating, performing, and responding incorporated?
- Is assessment ongoing throughout the project?
- Is there a final evaluation of student learning?
Teachers can implement interdisciplinary curriculum in a variety of ways, depending upon the time to be devoted to the interdisciplinary study, the scale of the project, and the personnel available for collaboration. Valid interdisciplinary work can take many forms, including:

- a single lesson that features connections between two or more disciplines
- an interdisciplinary unit of study
- a school-wide project involving many classrooms, students, and teachers
- an entire curricular framework.

The creative development of an interdisciplinary curriculum can spring from many different first steps. For example, teachers may choose to start with:

- the process inherent in the art form such as creating, responding, or performing
- a particular work in the art form
- aesthetic principles
- broad, generative themes
- standards in one or more disciplines
- key concepts and principles in other disciplines
- shared elements, functions, or contexts across disciplines.

Although there are many models and types of interdisciplinary instruction, we provide on the following pages three models with illustrations of classroom practice. These models were selected to represent a continuum of interdisciplinary work from limited exposure and connections to highly integrated and infused teaching and learning. The models are: Parallel Instruction, Crossdisciplinary Instruction, and Infusion.

“Interdisciplinary education is a knowledge view and curriculum approach that consciously applies methodology and language from more than one discipline to examine a central theme, issue, problem, topic or experience.”
Heidi Hayes Jacobs
Parallel Instruction

The first of these models, parallel instruction, involves agreement between two teachers to focus on some common topic or concept. Students in the parallel classrooms may make connections between disciplines because of the synchronization of instruction. Each teacher, however, focuses on the content and processes that are representative of each distinct discipline.

Many times teachers adopt this model as a starting point for further interdisciplinary work. Although it provides some valuable opportunities for students to be exposed to related ideas, the responsibility for finding valid relationships really rests with the student. If there is no assessment of these direct connections between the disciplines, the interdisciplinary relationships may seem incidental.

A variant of parallel instruction, which is more educationally sound, involves planning student projects based on “connections” standards between the disciplines. A common assignment or project links the two classroom efforts, but in a more deliberate manner than the synchronized version described above. In that regard, students will be held accountable for making some direct connections. Each teacher fosters connections across disciplines while retaining the character of his or her separate discipline. Teachers might also decide to come together at regular intervals or at the beginning and end of a parallel “stream” of instruction to evaluate learning.

An Example of Parallel Instruction:  
*Motion and Mechanical Energy – Science and Dance*

The sixth grade science and dance teachers at Green Willow Middle School coordinate instruction in their separate classes around the concept of chain reactions. In science class, students focus on laws of motion and mechanical energy that explain how chain reactions work. They build Rube Goldberg-type devices to apply and test these laws. At the same time, the dance teacher leads students through a process in which a theme is transformed through successive variations. The dance teacher suggests specific movements to add, delete, or alter, as well as families of movements (turns, jumps, falls, gestures) to manipulate. After the whole class demonstrates understanding of the process, students are assigned to small groups, in which students create a sequence of variations on a theme suggested by the teacher, but with different conditions for altering the theme. After the science classes and dance classes have completed their units, they meet together. The science students give a lecture/demonstration of their Rube Goldberg devices, explaining the physical properties of their imaginative machines. The dance students perform chain reaction dances, demonstrating their themes and justifying their expressive variations.
Crossdisciplinary Instruction

A second model, crossdisciplinary instruction, features two or more subject areas addressing a common theme, concept, or problem. Classes may meet at a common time (as in the parallel instruction approach), but teachers may also meet for common planning, as well. In addition, connections may be more explicit if teachers choose to demonstrate their expertise and the interplay of crossdisciplinary ideas through team teaching.

This approach is easy to relate to standards in each discipline, through an increased emphasis on the way that students demonstrate disciplinary and “connective” understanding through projects and demonstrations. One of the consortium members compared this approach to a seesaw—although the emphasis may shift from end to end, projects can share the same “board.”

In a crossdisciplinary environment, transfer becomes increasingly important. Students begin to use the characteristic ways of thinking in a particular discipline outside of that discipline. They may also see that there are similarities in processes across disciplines. One important outcome of crossdisciplinary instruction is students’ facility at shifting from content area to content area while keeping the essential bonds between areas strong.

Examples of Crossdisciplinary Instruction:
Conflict . . . A Powerful Organizer – Visual Arts and Literature

Students’ abilities to critique works of art and literature for their symbolic content provided the starting point for a middle school visual arts and a language arts teacher. The two teachers met to explore themes that would offer multiple opportunities for students to make connections between the two disciplines; they chose conflict as a powerful organizer. Standards in each discipline that emphasized students’ abilities to evaluate subject matter, symbols, and ideas in words and images guided the examination of works that were carefully selected to illustrate the theme of conflict. Students demonstrated their application of these ideas through presentations of the works that they selected, accompanied by oral critiques of the symbolism in the works.

The visual arts teacher used Picasso’s Cubist painting Guernica to illustrate how the artist used abstracted forms and symbols to depict the bombing and destruction of his Spanish city. Students recognized Picasso’s use of a light bulb and flower to signify the hope that arises through conflict. In presenting the work and examining its symbolic content, the art teacher modeled methods of interpretation and critique for students to use as they selected works by other artists that related to the theme of conflict. In their oral presentations, students demonstrated their abilities to critique the work and to uncover the meaning conveyed by other symbols. They also referred to specific aspects of the artist’s technique that related to the historical and cultural context in which the work was created.

In literature classes, the teacher used similar processes of critique in presenting a literary work by examining the symbols found in Paul Gallico’s The Snow Goose. Students read the story of the friendship between a young British girl and the solitary artist who acts bravely to rescue survivors of the Battle of Dunkirk. After describing the work and modeling the process of critique, the teacher assigned students to cooperative learning groups to research and examine additional works. Each group used analytical, interpretive, and evaluative skills in oral presentations of their assigned works.

Several times throughout the unit and at its conclusion, students and teachers from both classes met together to relate how texts and images can serve as powerful symbols of conflict in art works and the societal contexts in which they are created. Processes and strategies for critique across disciplines were examined, compared, and related in these thought-provoking discussions.
A Journey of Hope – Immigration - Music and History

Immigration was chosen as an organizing idea by a team made up of fifth grade teachers, an elementary general music teacher, and resident artists from a local professional opera company. Using the themes of “culture” and “individuals, groups, and institutions” from the social studies standards and “understanding music in relation to history and culture” from the music standards, teachers and visiting artists met together to plan how students would create and produce an original opera. Together, the team generated a list of essential questions that would guide the project, such as “What are the effects of immigration on the identity of a people?” and “How are cultural traditions preserved by immigrants in their songs, stories, and other forms of expression?”

Classroom teachers introduced the project by reading stories of immigrants who came to Ellis Island in the 1800s as well as the experiences of more recent immigrants to America. Songs and instrumental traditions of these immigrant cultures were introduced in music class; the composer from the Opera Forum helped students create songs that drew upon characteristic musical traditions of the cultures. Throughout the project, students generated ideas for the opera, created songs and dialogue using photographs and journals as inspiration, and examined their original lyrics for historical accuracy and cultural authenticity. The director from the Opera Forum guided the process of generating characters, developing the plot, and integrating the music and dialogue. The final production, entitled A Journey of Hope, reflected a close integration of musical traditions and performance and historical and cultural insights from social studies.

Infusion

Infusion is the third approach to interdisciplinary curriculum, and perhaps the most rare and sophisticated of the three. In this model, the depth of a teacher’s knowledge and the well-rounded background of the students become critical. One teacher who has sufficient depth in multiple subjects may be able to teach in this infused manner, but most often a collaborative team will need to be involved.

Students’ learning and outcomes in infused approaches are focused on strong relationships between complementary subjects. One project or activity may show students’ learning in both areas since the relationship is so integral to both. Students accustomed to a classroom without artificial partitions of time and division of subject matter into “packages” may regularly and consistently apply and transfer knowledge from one discipline to other disciplines. In addition, students may develop robust habits of mind to seek, establish and test connections.

Examples of Infusion

Theme Exploration: A Senior Seminar – Visual Arts and Literature

In a high school setting, an integrative senior seminar was proposed and created by the visual arts and language arts teacher. Students who enroll for this seminar participated in activities to explore the theme of conflict/violence in family relationships of today through sculpture, video, and literature. To introduce the seminar, the teachers arranged a field trip to view the work of a contemporary artist who uses soft sculpture, video, and recordings to comment on the theme of conflict/violence as it appears in family relationships. This theme was extended through the study of Shakespeare’s Romeo and Juliet and the analysis of various contemporary settings of the play. Students produced a videotape with storyboard and dialogue as well as various analyses of
the use of images, sounds, and texts in literal and symbolic forms. The process of production and interpretation (through brainstorming, planning, design, rough draft, sequencing, revision, evaluation, and critique) was compared in all three areas of expression. Students reflected on the ways that meanings are conveyed in sculptural, media, and literary arts and the expressive possibilities inherent in each, and the relationships and connections found in all three.

**Music and History – A Symbiotic Relationship**

A high school choral director and a history teacher prepared a unit involving both disciplines in a project to show the symbiotic relationship of music and history. The choir director chose music representative of specific periods of music (Renaissance, Baroque, etc.) and the history teacher prepared opportunities for students to relate historical events to musical events during these cultural eras. They selected works and eras carefully so that students could draw shared meaning from both disciplines.

During this unit, students demonstrated understanding that the course of human events has influenced forms of expression such as music. Some of the broad themes that were discovered by the students included: conflict, structure, architecture, prevailing patterns of thought and philosophy, relationships, patterns and other related areas. Students worked in groups and also on individually selected topics. The teachers used class time to discuss projects, provide or recommend resources, and guide discussion through the use of essential questions. At the end of the project period, rubrics were used to evaluate students’ work. Students were encouraged to ask “expert” questions about each presentation, which frequently centered around historical context and the role of the composer in creating new works to reflect the prominent themes of the era. In turn, this study influenced the students’ performance of the works.

**Transformation: A Force of Change to Communicate Meaning – Theatre and Science**

(Karen Erikson)

In a sixth grade drama class, students are studying the transformation of the body and voice into characterization. They are also studying the use of transformation as a device in dramatic play structure to communicate message, theme, or idea. In addition, they are learning to identify the antagonist and protagonist as character types in the dramatic structure. The teacher solidifies their understanding of these theatre concepts by integrating their studies with science. In science the students are studying the transformation of landforms (protagonists) by forces of nature (antagonists) such as wind, water, fire, ice, animals, and humans. The students create and enact scenes personifying the forces of nature and the land forms as characters. The characters are in conflict; the protagonist resists change but is consequently transformed. The scenes must communicate a message or idea that is illuminated through the conflict and the ultimate transformation. In addition, the scenes must use only accurate scientific information to support the transformation process. At the conclusion of the unit, the teachers discuss with the students the nature of transformation in science and in drama. The students compare and contrast the acting skills and tools necessary to complete the transformation into character and the natural forces causing transformation that exist in nature. Students are asked to examine what artists study these transformations in nature and draw upon them as metaphorical and symbolic representations to express meaning in art.