Battle Creek Public Schools

High School Computer Animation 1&2
Curriculum
Grades 9th - 12th

Presented to...
Dr. Charles E. Coleman, Superintendent
Kathy Griffey, Asst. Superintendent for Instruction and Curriculum
Gerry Mann, Asst. Superintendent for Educational Support Services
Larry Yarger, Asst. Superintendent for Human Resources
Deborah Nozicka, Director of Financial Services

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2007
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What Students Should Know and Be Able to Do in the Arts

There are many routes to competence in the arts disciplines. Students may work in different arts at different times. Their study may take a variety of approaches. Their abilities may develop at different rates. Competence means the ability to use an array of knowledge and skills. Terms often used to describe these include creation, performance, production, history, culture, perception, analysis, criticism, aesthetics, technology, and appreciation. Competence means capabilities with these elements themselves and an understanding of their interdependence; it also means the ability to combine the content, perspectives, and techniques associated with the various elements to achieve specific artistic and analytical goals. Students work toward comprehensive competence from the very beginning, preparing in the lower grades for deeper and more rigorous work each succeeding year. As a result, the joy of experiencing the arts is enriched and matured by the discipline of learning and the pride of accomplishment. Essentially, the Standards ask that students should know and be able to do the following by the time they have completed secondary school:

- They should be able to communicate at a basic level in the four arts disciplines--dance, music, theatre, and the visual arts. This includes knowledge and skills in the use of the basic vocabularies, materials, tools, techniques, and intellectual methods of each arts discipline.
- They should be able to communicate proficiently in at least one art form, including the ability to define and solve artistic problems with insight, reason, and technical proficiency.
- They should be able to develop and present basic analyses of works of art from structural, historical, and cultural perspectives, and from combinations of those perspectives. This includes the ability to understand and evaluate work in the various arts disciplines.
- They should have an informed acquaintance with exemplary works of art from a variety of cultures and historical periods, and a basic understanding of historical development in the arts disciplines, across the arts as a whole, and within cultures.
- They should be able to relate various types of arts knowledge and skills within and across the arts disciplines. This includes mixing and matching competencies and understandings in art-making, history and culture, and analysis in any arts-related project.

As a result of developing these capabilities, students can arrive at their own knowledge, beliefs, and values for making personal and artistic decisions. In other terms, they can arrive
at a broad-based, well-grounded understanding of the nature, value, and meaning of the arts as a part of their own humanity.

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**Summary Statement**

These *National Standards for Arts Education* are a statement of what every young American should know and be able to do in four arts disciplines—dance, music, theatre, and the visual arts. Their scope is grades K-12, and they speak to both content and achievement.

**The Reform Context** The Standards are one outcome of the education reform effort generated in the 1980s, which emerged in several states and attained nationwide visibility with the publication of *A Nation at Risk* in 1983. This national wake-up call was powerfully effective. Six national education goals were announced in 1990. Now there is a broad effort to describe, specifically, the knowledge and skills students must have in all subjects to fulfill their personal potential, to become productive and competitive workers in a global economy, and to take their places as adult citizens. With the passage of the *Goals 2000: Educate America Act*, the national goals are written into law, naming the arts as a core, academic subject—as important to education as English, mathematics, history, civics and government, geography, science, and foreign language.

At the same time, the Act calls for education standards in these subject areas, both to encourage high achievement by our young people and to provide benchmarks to determine how well they are learning and performing. In 1992, anticipating that education standards would emerge as a focal point of the reform legislation, the Consortium of National Arts Education Associations successfully approached the U.S. Department of Education, the National Endowment for the Arts, and the National Endowment for the Humanities for a grant to determine what the nation's school children should know and be able to do in the arts. This document is the result of an extended process of consensus-building that drew on the broadest possible range of expertise and participation. The process involved the review of state-level arts education frameworks, standards from other nations, and consideration at a series of national forums.

**The Importance of Standards** Agreement on what students should know and be able to do is essential if education is to be consistent, efficient, and effective. In this context, Standards for arts education are important for two basic reasons. First, they help define what a good education in the arts should provide: a thorough grounding in a basic body of knowledge and the skills required both to make sense and make use of the arts disciplines. Second, when states and school districts adopt these Standards, they are taking a stand for rigor in a part of education that has too often, and wrongly, been treated as optional. This document says, in effect, "an education in the arts means that students should know what is spelled out here, and they should reach clear levels of attainment at these grade levels."

These Standards provide a vision of competence and educational effectiveness, but without creating a mold into which all arts programs must fit. The Standards are concerned with the *results* (in the form of student learning) that come from a basic education in the arts, *not with how those results ought to be delivered*. Those matters are for states, localities, and classroom teachers to decide. In other words, while the Standards provide educational goals and not a curriculum, they can help improve all types of arts instruction.

**The Importance of Arts Education** Knowing and practicing the arts disciplines are fundamental to the healthy development of children's minds and spirits. That is why, in any
civilization--ours included--the arts are inseparable from the very meaning of the term "education." We know from long experience that no one can claim to be truly educated who lacks basic knowledge and skills in the arts. There are many reasons for this assertion:

- The arts are worth studying simply because of what they are. Their impact cannot be denied. Throughout history, all the arts have served to connect our imaginations with the deepest questions of human existence: Who am I? What must I do? Where am I going? Studying responses to those questions through time and across cultures--as well as acquiring the tools and knowledge to create one's own responses--is essential not only to understanding life but to living it fully.
- The arts are used to achieve a multitude of human purposes: to present ideas, teach or persuade, entertain, decorate or please. Becoming literate in the arts helps students understand and do these things better.
- The arts are integral to every person's daily life. Our personal, social, economic, and cultural environments are shaped by the arts at every turn--from the design of the child's breakfast placemat, to the songs on the commuter's car radio, to the family's night-time TV drama, to the teenager's Saturday dance, to the enduring influences of the classics.
- The arts offer unique sources of enjoyment and refreshment for the imagination. They explore relationships between ideas and objects and serve as links between thought and action. Their continuing gift is to help us see and grasp life in new ways.
- There is ample evidence that the arts help students develop the attitudes, characteristics, and intellectual skills required to participate effectively in today's society and economy. The arts teach self-discipline, reinforce self-esteem, and foster the thinking skills and creativity so valued in the workplace. They teach the importance of teamwork and cooperation. They demonstrate the direct connection between study, hard work, and high levels of achievement.

The Benefits of Arts Education Arts education benefits the student because it cultivates the whole child, gradually building many kinds of literacy while developing intuition, reasoning, imagination, and dexterity into unique forms of expression and communication. This process requires not merely an active mind but a trained one. An education in the arts benefits society because students of the arts gain powerful tools for understanding human experiences, both past and present. They learn to respect the often very different ways others have of thinking, working, and expressing themselves. They learn to make decisions in situations where there are no standard answers. By studying the arts, students stimulate their natural creativity and learn to develop it to meet the needs of a complex and competitive society. And, as study and competence in the arts reinforce one another, the joy of learning becomes real, tangible, and powerful.

The Arts and Other Core Subjects The Standards address competence in the arts disciplines first of all. But that competence provides a firm foundation for connecting arts-related concepts and facts across the art forms, and from them to the sciences and humanities. For example, the intellectual methods of the arts are precisely those used to transform scientific disciplines and discoveries into everyday technology.

What Must We Do? The educational success of our children depends on creating a society that is both literate and imaginative, both competent and creative. That goal depends, in turn, on providing children with tools not only for understanding that world but for contributing to it and making their own way. Without the arts to help shape students' perceptions and
imagine, our children stand every chance of growing into adulthood as culturally disabled. We must not allow that to happen.

Without question, the Standards presented here will need supporters and allies to improve how arts education is organized and delivered. They have the potential to change education policy at all levels, and to make a transforming impact across the entire spectrum of education.

But only if they are implemented.

Teachers, of course, will be the leaders in this process. In many places, more teachers with credentials in the arts, as well as better-trained teachers in general, will be needed. Site-based management teams, school boards, state education agencies, state and local arts agencies, and teacher education institutions will all have a part to play, as will local mentors, artists, local arts organizations, and members of the community. Their support is crucial for the Standards to succeed. But the primary issue is the ability to bring together and deliver a broad range of competent instruction. All else is secondary.

In the end, truly successful implementation can come about only when students and their learning are at the center, which means motivating and enabling them to meet the Standards. With a steady gaze on that target, these Standards can empower America's schools to make changes consistent with the best any of us can envision, for our children and for our society.
Endorsers

The following professional organizations join with the Consortium of National Arts Education Associations in promoting the vision of K-12 arts education as described in the National Standards for Arts Education:
AllianceforCurriculumReform
AmericanArtsAlliance
AmericanAssociationofSchoolAdministrators
AmericanChoralDirectorsAssociation
AmericanCouncilfortheArts
AmericanFederationofMusiciansoftheU.S.andCanada
AmericanGuildofEnglishHandbellRingers
AmericanMusicConference
AmericanSymphonyOrchestraLeague
AssociationofArtMuseumDirectors
AssociationofTeacherEducators
Capezio/BalletMakersDanceFoundation
ChorusAmerica
CollegeBandDirectorsNationalAssociation
TheCollegeBoard
CouncillorBasicEducation
EducationalTheatreAssociation
FutureBusinessLeadersofAmerica--PhiBetaLambda,Inc.
GettyCenterforEducationintheArts
GuitarandAccessoriesMarketingAssociation
IndustrialDesignersSocietyofAmerica
InternationalAssociationofElectronicKeyboardManufacturers
TheInternationalNetworkofPerformingandVisualArtsSchools
JohnF.KennedyCenterforthePerformingArts
MeettheComposer,Inc.
MusicDistributorsAssociation
MusicIndustryConference
NationalAcademyofRecordingArts&Sciences,Inc.
NationalAssemblyofLocalArtsAgencies(NALAA)
NationalAssemblyofStateArtsAgencies(NASAA)
NationalAssociationofBandInstrumentManufacturers
NationalAssociationofElementarySchoolPrincipals
NationalAssociationofMusicMerchants
NationalAssociationforMusicTherapy,Inc.
NationalAssociationofPastoralMusicians,MusicEducationDivision
NationalAssociationofSchoolMusicDealers
NationalCouncilofMusicImportersandExporters
NationalEducationAssociation
NationalFederationofMusicClubs
NationalMovementTheatreAssociation
NationalPianoFoundation
NationalSchoolOrchestraAssociation
NorthAmericanMontessoriTeachers'Association
North American Steel Band Association
OPERAtor
Percussive Arts Society
Piano Manufacturers Association International
Society for the Preservation and Encouragement of Barber Shop Quartet Singing in America, Inc.
Sweet Adelines International
United States Amateur Ballroom Dancers Association
The VoiceCare Network
Young Audiences, Inc.

Supporters

The following professional organizations have added their support for the goals and ideals implied in the *National Standards for Arts Education*:
American Association of Museums
American Bandmasters Association
American Orff-Schulwerk Association
Arts & Business Council, Inc.
ASSITEJ/USA (International Association of Theatre for Children and Young People/United States Center)
Center for Civic Education
College Art Association of America
Corporation for Public Broadcasting
Dance Notation Bureau
Dance/USA
International Council of Fine Arts Deans
International Reading Association
Music Publishers' Association
Music Teachers National Association
National Alliance for Media Arts & Culture
National Alliance for Musical Theatre
National Association of College Wind and Percussion Instructors
National Association of Schools of Art and Design
National Association of Schools of Dance
National Association of Schools of Music
National Association of Schools of Theatre
National Band Association
National Council for the Social Studies
National Council of Teachers of Mathematics
National League of Cities
National School Boards Association
Very Special Arts
ARTS EDUCATION
(includes Dance, Music, Theatre, and Visual Arts)

CONTENT STANDARDS AND WORKING DRAFT BENCHMARKS

1. Performing

Content Standard 1: All students will apply skills and knowledge to perform in the arts.

Dance

<table>
<thead>
<tr>
<th>Elementary</th>
<th>Middle School</th>
<th>High School</th>
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<tr>
<td>1. Accurately demonstrate basic locomotor skills through straight and curved pathways including several directions.</td>
<td>1. Demonstrate the following movement skills: alignment, balance, initiation of movement, articulation of isolated body parts, weight shift, elevation and landing, and fall and recovery.</td>
<td>1. Demonstrate appropriate skeletal alignment, body-part articulation, strength, flexibility, agility, and coordination in locomotor and non- locomotor/axial movements.</td>
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<td>2. Accurately demonstrate nonlocomotor/axial movement (such as bend, twist, stretch, swing).</td>
<td>2. Accurately identify and demonstrate basic dance steps, positions, and patterns for dance from two different styles or traditions.</td>
<td>2. Identify and demonstrate longer and more complex steps and patterns from two different dance styles/traditions.</td>
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<tr>
<td>3. Demonstrate shapes at low, middle, and high levels.</td>
<td>3. Accurately transfer a spatial pattern from the visual to the kinesthetic.</td>
<td>3. Demonstrate rhythmic acuity.</td>
</tr>
<tr>
<td>4. Demonstrate the ability to define and maintain personal space.</td>
<td>4. Accurately transfer a rhythmic pattern from the aural to the kinesthetic.</td>
<td>4. Demonstrate projection while performing dance skills.</td>
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<td>5. Demonstrate moving to a musical beat and responding to changes in tempo.</td>
<td>5. Identify and clearly demonstrate a range of dynamics/movement qualities.</td>
<td>5. Demonstrate the ability to remember extended movement sequences.</td>
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<tr>
<td>6. Demonstrate kinesthetic awareness, concentration, and focus in performing movement skills.</td>
<td>6. Demonstrate increasing kinesthetic awareness, concentration, and focus in performing movement skills.</td>
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<tr>
<td>7. Demonstrate the ability to work effectively alone and with a partner.</td>
<td>7. Demonstrate accurate memorization and reproduction of movement sequences.</td>
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<td>8. Demonstrate the following partner skills: leading, following, and mirroring.</td>
<td>8. Clearly demonstrate the principles of contrast and transition.</td>
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<td>9. Effectively demonstrate the processes of reordering and chance.</td>
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<td>10. Successfully demonstrate the structures or forms for AB, ABA, canon, call and response, and narrative.</td>
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</table>
1. Performing Con’t.

**Content Standard 1:** All students will apply skills and knowledge to perform in the arts.

**Music, Con’t.**

7. Echo short rhythms and melodic patterns.

7. Play simple melodies and harmonic accompaniments by ear.

8. Perform independent instrumental parts while other students sing or play contrasting parts.

8. Read whole, half, quarter, eighth, sixteenth, and dotted notes and rests; simple, compound, and alla breve meters.

9. Read whole, half, dotted half, quarter, and eighth notes and rests in double and triple meter.

9. Sight read simple melodies in treble and bass clefs.

5. Read an instrumental or vocal score of at least four staffs.

10. Use a system to read simple pitch notation in the treble clef in major keys.

6. Sight read, accurately and expressively, music with a moderate level of difficulty.

11. Identify symbols and traditional terms referring to dynamics, tempo, and articulation and interpret them correctly when performing.

12. Use standard symbols to notate meter, rhythm, pitch, and dynamics in simple patterns presented by the teacher.

10. Use standard notation to record personal musical ideas and the musical ideas of others.

**Theatre**

1. Use variations of locomotor and non-locomotor movement and vocal pitch, tempo, and tone for different characters.

1. Demonstrate acting skills (such as sensory recall, concentration, breath control, diction, body alignment, control of isolated body parts) to develop characterizations that suggest artistic choices.

2. Assume roles that exhibit concentration and contribute to the action of classroom dramatizations based on personal experience and heritage, imagination, literature, and history.

2. In an ensemble, interact as the invented characters in improvised and scripted scenes.

3. Lead small groups in planning rehearsals for improvised and scripted scenes.

2. Communicate directorial choices to a small ensemble for improvised or scripted scenes.

1. Use the basic physical and chemical properties of the technical aspects of theatre (such as light, color, electricity, paint, and makeup).
2. Creating Con't.

Content Standard 2: All students will apply skills and knowledge to create in the arts.

Dance con’t.

3. Use improvisation to discover, invent, and solve movement problems.

4. Create a dance phrase, accurately repeat it, and then vary it (making changes in the elements of dance: time, space, force, and energy).

5. Begin to develop tracking skills with video camera.

6. Create a dance and revise it over time using multi-media equipment (slides, camera, video, computers) articulating the reasons for their artistic decisions and what was lost and gained by those decisions.

Music

1. Improvise simple rhythmic and melodic ostinato accompaniments.

2. Improvise "answers" in the same style to given rhythmic and melodic phrases.

3. Improvise simple rhythmic variations and simple melodic embellishments on familiar melodies.

4. Create and arrange short songs and instrumental pieces within specified guidelines.

1. Improvise simple harmonic accompaniments.

2. Improvise melodic embellishments and simple rhythmic and melodic variations on given pentatonic melodies and melodies in major keys.

3. Improvise short melodies, unaccompanied and over given rhythmic accompaniments, each in a consistent style, meter, and tonality.


5. Improvise stylistically appropriate harmonizing parts.

2. Improvise rhythmic and melodic variations; given pentatonic melodies and melodies in major and minor keys.

3. Improvise original melodies over given chord progressions, each in a consistent style, meter, and tonality.

4. Compose music in several distinct styles, demonstrating creativity in using the elements of music for expressive effect.

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2. Creating Con’t.

Content Standard 2: All students will apply skills and knowledge to create in the arts.

Theatre con’t.

4. Collaborate to establish playing spaces for classroom dramatizations and to select and organize available materials that suggest scenery, properties, lighting, sound, costumes, and makeup.

5. Collaboratively plan and rehearse improvisations and demonstrate various ways of staging classroom dramatizations.

4. Apply technical knowledge and skills to collaboratively create functional scenery, properties, lighting, sound, costumes, and makeup.

5. Design stage management, promotional and business plans.

Visual Arts

1. Apply knowledge of materials, techniques, and processes to create artwork.

1. Select materials, techniques, and processes to effectively communicate ideas.

1. Apply materials, techniques, and processes with sufficient skill, confidence, and sensitivity that personal intentions are carried out in artworks.

2. Apply knowledge of how visual characteristics and organizational principles communicate ideas.

2. Employ organizational principles and analyze what makes them effective or not in the communication of ideas.

2. Create artworks that use organizational principles and functions to solve specific visual arts problems.

3. Explore and understand prospective subject matter, ideas, and symbols for works of art.

3. Integrate visual, spatial, and temporal concepts with content to communicate intended meaning in artworks.

3. Describe the origins of specific images and ideas and explain why they are of value in their artwork and in the work of others.

4. Select and use subject matter, symbols and ideas to communicate meaning.

4. Use subjects, themes, and symbols that communicate intended meaning in artworks.

4. Apply and adapt subjects, symbols, and creative ideas in artworks and use the skills gained to solve problems in daily life.

5. Know different purposes of visual art to creatively convey ideas.

5. Integrate organizational structures and characteristics to create art for different purposes.

5. Demonstrate an improved ability to integrate structures, characteristics and principles to accomplish commercial, personal, communal, or other purposes of art.

6. Use technology as a tool for creative expression.

6. Organize information and ideas for media productions.

6. Create media productions that demonstrate knowledge, contexts, values, and aesthetics.
### 3. Analyzing in Context Con’t.

**Content Standard 3:** All students will analyze, describe and evaluate works of art.

**Music**

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<tr>
<th>Elementary</th>
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<th>High School</th>
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<tr>
<td>1. Identify simple music forms when presented aurally.</td>
<td>1. Describe specific music events in a given aural example, using appropriate terminology.</td>
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<tr>
<td>2. Demonstrate perceptual skills by moving, by answering questions, and by describing aural examples of music of various styles representing diverse cultures.</td>
<td>2. Analyze the uses of elements of music in aural examples representing diverse genres and cultures.</td>
<td></td>
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<tr>
<td>3. Use appropriate terminology in explaining music, music notation, musical instruments and voices, and music performances.</td>
<td>3. Demonstrate knowledge of the basic principles of meter, rhythm, tonality, intervals, chords, and harmonic progressions in their analyses of music.</td>
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<tr>
<td>4. Identify the sounds of a variety of instruments, including many orchestra, band and electronic instruments, and instruments from various cultures, as well as children’s voices and male and female adult voices.</td>
<td>4. Develop criteria for evaluating the quality and effectiveness of music performances and compositions and apply these criteria when performing.</td>
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<tr>
<td>5. Respond through purposeful movement to selected prominent music characteristics or to specific music events while listening to music.</td>
<td>5. Make informed, critical evaluations of the quality and effectiveness of performances, compositions, arrangements, and improvisations applying specific criteria.</td>
<td></td>
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<tr>
<td>6. Devise criteria for evaluating performances and compositions.</td>
<td>7. Explain, using appropriate music terminology, personal preferences for specific musical works, and styles.</td>
<td>6. Evaluate a performance, composition, arrangement, or improvisation by comparing it to similar or exemplary models.</td>
</tr>
</tbody>
</table>
3. Analyzing in Context Con’t.

Content Standard 3: All students will analyze, describe and evaluate works of art.

Theatre con’t.

7. Articulate emotional responses to
   and explain personal preferences
   about the whole as well as the
   parts of dramatic performances.

8. Describe and evaluate the perceived
   effectiveness of students’
   contributions (as playwrights, actors,
   designers, and directors) to the
   collaborative process of developing
   improvised and scripted scenes.

6. Articulate and justify personal
   aesthetic criteria for critiquing
   dramatic texts and events that
   compare perceived artistic
   intent with the final aesthetic
   achievement.

7. Identify and research cultural,
   historical, and symbolic clues in
   dramatic texts and evaluate the
   validity and practicality of the
   information to assist in making
   artistic choices for informal and
   formal productions.

8. Analyze and critique the whole
   and the parts of dramatic
   performances, taking into
   account the context, and
   constructively suggest
   alternative artistic choices
   including visual and aural
   components influenced by the
   use of technology.

9. Evaluate personal and others’
   collaborative efforts and artistic
   choices in informal and formal
   productions.

Visual Arts

1. Generalize about the effects of
   visual structures and functions and
   reflect upon these effects in
   personal work.

2. Identify various purposes for
   creating works of visual art.

3. Understand there are different
   responses to specific artworks.

4. Form and defend judgments about
   characteristics and structures to
   accomplish commercial, personal,
   communal, or other purposes of art.

5. Observe and compare works of art
   that were created for different
   purposes.

6. Describe how materials, techniques,
   technology, and processes cause
   responses.

7. Analyze the effectiveness of
   selections in communicating
   ideas and reflect upon the
   effectiveness of choices.

8. Identify intentions of artists,
   explore the implications of
   various purposes, and justify
   analyses of purposes in
   particular works.

9. Describe how expressive
   features and organizational
   principles cause responses.
4. Arts in Context Con't.

Content Standard 4: All students will understand, analyze, and describe the arts in their historical, social, and cultural contexts.

### Music

1. Identify by genre or style aural examples of music from various historical periods and cultures.

2. Describe how elements of music are used in examples from various cultures of the world.

3. Identify various uses of music in daily experiences and describe characteristics that make certain music suitable for each use.

4. Identify and describe roles of musicians in various settings and cultures.

5. Demonstrate audience behavior appropriate for the context and style of music performed.

### Theatre

1. Identify and compare similar characters and situations in stories and dramas from and about various cultures, illustrate with classroom dramatizations, and discuss how theatre reflects life.

2. Construct social meanings from informal and formal productions and from dramatic performances from a variety of cultures and historical periods, and relate to current personal, national, and international issues.

3. Identify various roles that musicians perform, cite representative individuals who have functioned in each role, and describe their activities and achievements.

### Analysis

1. Describe distinguishing characteristics of representative music genres and styles from a variety of cultures.

2. Classify by genre and style (and, if applicable, by historical period, composer, and title) a varied body of exemplary musical works and explain the characteristics that cause each work to be considered exemplary.

3. Compare, in several cultures of the world, functions music serves, roles of musicians, and conditions under which music is typically performed.

4. Describe the impact of electronic media on music.
4. Arts in Context Con't.

Content Standard 4: All students will understand, analyze, and describe the arts in their historical, social, and cultural contexts.

Visual Arts con't.

3. Demonstrate how history, culture, and the visual arts can influence each other in making and studying works of art.

3. Analyze, describe, and demonstrate how factors of time and place (such as climate, resources, ideas, and technology) influence visual characteristics that give meaning and value to a work of art.

3. Analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using conclusions to inform personal artwork.

5. Connecting to other Arts, other Disciplines, and Life

Content Standard 5: All students will recognize, analyze, and describe connections among the arts; between the arts and other disciplines; between the arts and everyday life.

Dance

<table>
<thead>
<tr>
<th>Elementary</th>
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<th>High School</th>
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<tr>
<td>1. Identify at least three personal goals to improve as dancers.</td>
<td>1. Identify at least three personal goals to improve as dancers and steps they are taking to reach those goals.</td>
<td>1. Demonstrate understanding of how personal experience influences the interpretation of a dance.</td>
</tr>
<tr>
<td>2. Explain how healthy practices (such as nutrition, safety) enhance their ability to dance, citing multiple examples.</td>
<td>2. Explain strategies to prevent dance injuries.</td>
<td>2. Effectively communicate how lifestyle choices affect the dancer.</td>
</tr>
<tr>
<td>3. Create a dance project that reveals understanding of a concept or idea from another discipline (such as patterns in dance and science with the use of technology).</td>
<td>3. Explain how warm-up prepares the body and mind for expressive purposes.</td>
<td>3. Create an interdisciplinary project based on a theme identified by the student, including dance and two other disciplines (history, science, multi-media, etc.).</td>
</tr>
<tr>
<td>4. Respond to a dance using another art form; explain the connections between the dance and their response to it (such as stating how personal paintings reflect the dance they saw).</td>
<td>4. Develop a project that reveals similarities and differences between the arts.</td>
<td>4. Clearly identify commonalities and differences between dance and other disciplines with regard to fundamental concepts such as materials, elements, and ways to communicate meaning.</td>
</tr>
</tbody>
</table>
5. Connecting to other Arts, other Disciplines, and Life Con’t.

Content Standard 5: All students will recognize, analyze, and describe connections among the arts; between the arts and other disciplines; between the arts and everyday life.

**Theatre**

1. Describe visual, aural, oral, and kinetic elements in theatre, dramatic media, dance, music, and visual arts.

2. Compare how ideas and emotions are expressed in theatre, dramatic media, dance, music, and visual arts.

3. Select movement, music, or visual elements to enhance the mood of a classroom dramatization.

1. Describe characteristics and compare the presentation of characters, environments, and actions in theatre, musical theatre, dramatic media, dance, and visual arts.

2. Incorporate elements of dance, music, visual arts, and multi-media to express ideas and emotions in improvised and scripted scenes.

3. Express and compare personal reactions to several art forms.

1. Describe and compare the basic nature, materials, elements and means of communicating in theatre, dramatic media, musical theatre, dance, music, multimedia, and the visual arts.

2. Determine how the nondramatic art forms are modified to enhance the expression of ideas and emotions in theatre.

3. Integrate several arts media in informal presentations.

**Visual Arts**

1. Explain how visual arts have inherent relationships to everyday life.

2. Identify various careers in the visual arts.

3. Understand and use comparative characteristics of the visual arts and other arts disciplines.

4. Identify connections between the visual arts and other disciplines in the curriculum.

1. Analyze personal, family, and community connections that involve work by visual artists.

2. Describe and compare skills involved in arts-related and visual arts careers.

3. Compare the characteristics of works in two or more art forms that share similar subject matter, historical periods, or cultural context.

4. Describe ways in which the principles and subject matter of other disciplines taught in the school are interrelated with the visual arts.

1. Speculate and analyze how future technologies may impact art in everyday life.

2. Describe the characteristics of a variety of visual arts careers.

3. Compare the materials, technologies, techniques, and processes of the visual arts with those of other arts disciplines as they are used in creating and types of analysis.

4. Compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.
High School Graduation Requirement Guidelines

VISUAL, PERFORMING AND APPLIED ARTS

- Create
- Perform
- Respond/Analyze

Note: The DRAFT 6/26 documents are OPEN FOR PUBLIC COMMENT. Please DO NOT copy or distribute.
Introduction

On April 20, 2006, Governor Jennifer M. Granholm signed into law a rigorous new set of statewide high school graduation requirements called the Michigan Merit Curriculum that are among the best in the nation. (Public Acts 123 & 124)

The Michigan Merit Curriculum will be required for graduation starting with the Class of 2011. The curriculum requires 16 credits for graduation, which could be acquired through subject and integrated (mixed subject) classes, as well as, career and technical education programs and requires the Michigan Department of Education to develop credit guidelines for all of the Michigan Merit Curriculum credits including Visual, Performing and Applied Arts.

To develop the Visual, Performing and Applied Arts guidelines, the department established an Academic Work Group, co-chaired by Aaron P. Dworkin, Sphinx Organization; Robert Root-Bernstein, Michigan State University; and Sharon L. Vasquez, Wayne State University with representation from higher education, K-12 education, and the cultural and business sectors.

The committee has met and drafted the Visual, Performing and Applied Arts guidelines. We value your input and would like to invite you to review these DRAFT guidelines and provide input by completing the attached survey by July 12, 2006.
Guidelines

The State Board of Education’s expectation is that all K-12 students should achieve at the basic level in each of the arts disciplines and achieve proficiency in at least one art discipline by graduation from high school.

The guidelines in this document represent three strands within the "Artistic Process": CREATE, PERFORM, RESPOND/ANALYZE. The strands and guidelines correspond to Michigan’s Arts Education Content Standards and Benchmarks (http://www.michigan.gov/documents/ARTS_Standards_11402_7.pdf) approved by the State Board of Education in 1998. There are multiple guidelines within each strand that may be addressed through the visual, performing, or applied arts disciplines.

The guidelines for the 1-credit graduation requirement in the Visual, Performing and Applied Arts are designed to provide all high school students with a rigorous foundation in the artistic process that can be easily adapted to a specific arts discipline or level of student proficiency.

These guidelines support curriculum development along with Michigan’s Arts Education Content Standards and Benchmarks for Dance, Music, Theatre and the Visual Arts (http://www.michigan.gov/documents/ARTS_Standards_11402_7.pdf and/or Michigan’s Career Cluster Mastery Grid (http://www.michigan.gov/documents/Assessment_Grid_Arts_Land_116037_7.xls). The skills and content addressed in these guidelines will, in practice, be woven together into a coherent and dynamic visual, performing or applied arts curriculum centered round the complete artistic process, the centerpiece of the guidelines in this document. The emphasis is not on courses but on credits.

The Artistic Process model which follows the guidelines, illustrates the dynamic cycles and multiple entry points to the artistic process that is central to these guidelines and involves: observation, exploration, innovation, problem-solving, skill development, creation, presentation, reflection, and delayed closure- all key to the artistic process.
To meet the 1-credit graduation requirement in the visual, performing and applied arts, students will develop a working understanding of the artistic process by demonstrating proficiency in all of the following guidelines in this document in one or more courses.

**Strand 1: Create (C)**

*Students:*

C.1. Understand the organizational principles of the art discipline. Recognize patterns and associations as they are realized through the acquisition of knowledge, techniques and skills.

C.2. Formulate an idea, question, or problem that is informed by the history, tradition and contemporary cultural contexts of the art discipline.

C.3. Engage in the full iterative cycle of the artistic process by problem-seeking, exploring, and making analytical and aesthetic choices while delaying closure.

C.4. Use state of the art resources and tools to facilitate critical decision-making, problem-solving, editing, and the creation of solutions.

C.5. Reflect on and articulate the steps of the artistic process.

**Strand 2: Perform (P)**

*Students:*

P.1. Understand and demonstrate proficiency in use of appropriate vocabularies, materials, tools, techniques, elements, principles, intellectual methods and conceptual strategies of the art discipline.
P.2. Learn new ways of thinking, processing and communicating ideas, emotions, and experiences through the art discipline.

P.3. Apply the organizational principles and functions of the art discipline to address opportunities or solve problems with insight, reason, and technical proficiency.

P.4. Understand relationships among the artist (student), the art (product), and a variety of potential audiences.

P.5. Perform, exhibit, or publish their work for an audience.

**Strand 3: Respond/Analyze (R)**

*Students:*

R. 1. Observe, describe, reflect on, analyze, and interpret works of the visual, performing or applied arts.

R.2. Describe, analyze and understand connections among the visual, performing, and applied arts; between the arts and other academic disciplines; between these arts and everyday life.

R.3. Describe, analyze and understand the visual, performing, or applied arts in historical, contemporary, social and cultural contexts.

R.4. Analyze and reflect on the personal and social meaning derived from an artistic experience.
Artistic Process
As illustrated by cycles of exploration and delayed closure

For the purpose of curriculum development, the three strands Creating, Performing, and Responding/Analyzing have been identified. In practice, the artistic process is always dynamic, wholly integrated, organic and complex. The artistic process draws upon skills, knowledge and practices from each strand. Each stage of the process combines experiential, affective, emotional, self-reflective and analytical understanding. The main goal of the graduation requirement is to provide students with experience in the artistic process as a whole. This process is non-linear and iterative, characterized by cycles of exploration and delayed closure in which students essay a variety of approaches sustaining a realm of possible creations before settling on a product or performance. There are therefore a multitude of paths through the artistic process and each stage of the process may interact with and embody several different guidelines.

For example, the artistic process always begins with questions and problems. Such questions and problems may derive from an informed knowledge of the history, traditions or contemporary cultural contexts of a discipline [C.2]; from applying the organizational principles and functions of a discipline to a particular performance [P.3]; or trying to understand, analyze, and describe connections among various arts [R.2]. Moreover, the nature of the problems and questions posed at each stage of the process will differ: skill acquisition [C.1, C.2, P.1, R.1, R.3] poses problems that are of a different nature in each art and which, in turn, differ from the problems posed by critical decision-making and editing [C.4, C.5, P.3].

In addition, each artistic production may proceed through different dynamic and iterative paths through the process. An exciting question may arise from viewing another artist’s exhibition or performance [C.1, C.4, P.1], or making new associations between knowledge [C.1]. Experimenting with possible solutions to a problem [C.3, P.2] may yield one major insight or many iterative approximations [P.1, P.2, P.3] before a solution [C.4, P.4] that passes critical examination is achieved [C.4, C.5, P.3, R.1-4].

Another possibility is that new problems may be posed [C.2, P.3, R.2] that redefine what new knowledge, skills, and techniques [C.1, C.4, P.1] need to be acquired. Students should experience various iterative and dynamic paths through the artistic process and be able to describe and analyze the steps and their various relationships.
Artistic Process
As illustrated by cycles of exploration and delayed closure

- Products, Solutions C.4, P.4
- Critical Decision-Making, Editing, Problem-Solving C.4, C.5, P.3
- Exhibition, Performance Publication P.5, R.1-4
- Knowledge & Skills Acquisition C.1, C.2, P.1, R.1-4
- Techniques & Skills C.1, C.4, P.1, R1-4
- Associations & Patterns C.1
- Play, Experimentation, Problem-Seeking C.3, P.2
- Questions, Problems, Needs, Reflections, Revisions C.5, R.1-4
- Preliminaries, Possibilities, Drafts P.1, P.2, P.3
To enter the survey, please click on the following link:
Visual, Performing and Applied Arts Survey

The Michigan Department of Education would like to thank you for your participation and values your input.
Course Description

COMPUTER ANIMATION 1

Prerequisite: Successful Completion of Living with Computer Technology Or Equivalent

This is an introductory hands-on course in 2-D Computer Animation using Macromedia Flash MX 2004 software. No previous experience in animation or computer graphics is required. The course covers Flash drawing tools, use of layers and the timeline, motion animation of objects and text, and shape morphing. Students will also learn to import graphics for use in Flash movies and will develop Flash movies based on themes.
Course Description

COMPUTER ANIMATION 2

Prerequisite: Successful Completion of Computer Animation 1

This is the advanced level course in computer animation using Macromedia Flash, which focuses on building more complex animations, use of multiple scenes, using more advanced Action Script, and using sound. Also included are drawing in Fireworks and incorporating movie clips into Web sites with Dreamweaver software.
SYLLABUS

Course:       Computer Animation 1
Teacher:      Ms. Hanson
Room:         B-16

Course Length: 18 Weeks
Credit Earned: 1

Prerequisite: Living with Computer Technology and/or general knowledge of computers

COURSE OBJECTIVE:

This is an introductory course in computer animation. This course explores storyboarding, scene layout, character design and the development of story lines to produce short animation clips. The software we will use for the class is Macromedia Flash MX 2004, which is widely used by professionals for creating animations for the Web.

COURSE CONTENT:

Introduction to Flash and the Flash environment
Drawing tools and objects
Layers and the timeline
File types
Introduction to HTML
Symbols and instances
Libraries
Buttons and ActionScript
Frame animation
Motion-tweened animation and motion guides
Animating text
Shape-tweening
Scenes
Sound
Importing graphics

GRADING:

80% Average of daily work, movie assignments, and quizzes
20% Final Exam

*The grade breakdown is subject to change. Also, many graded activities will be hands-on as opposed to paper/pencil tests.

EXPECTATIONS:

You are expected to come to class every day, listen and pay attention, be quiet when the teacher is talking, and most importantly be on task because much of your class time will be spent working on the computer independently.
**SYLLABUS**

**Course:** Computer Animation 2  
**Teacher:** Ms. Hanson  
**Room:** B-16  

**Course Length:** 18 Weeks  
**Credit Earned:** 1  

**Prerequisite:** Computer Animation 1

**COURSE OBJECTIVE:**
This is the second level course in computer animation using Macromedia Flash, which focuses on building more complex animations, use of multiple scenes, using more advanced ActionScript, and using sound. Also included are drawing in Fireworks and incorporating movie clips into Web sites with Dreamweaver.

**COURSE CONTENT:**
This is a project-based course with a minimal amount of direct instruction. Students will be given movie assignment specifications based on benchmarks. Rubrics will often be provided, and students will self-evaluate their work as well as constructively evaluate the work of others.

**ADDITIONAL INFORMATION:**
- The Animation 2 class will run concurrently with the Animation 1 class.
- Headphones are needed for this course as most of your work will require the use of sound files. If you cannot provide your own headphones, please see me.
- All movie assignment content must be school-appropriate.

**GRADING:**
80% Average of daily work, movie assignments, and quizzes  
20% Final Exam  
*The grade breakdown is subject to change.*

**EXPECTATIONS:**
You are expected to come to class every day, listen and pay attention, be quiet when the teacher is talking, and most importantly be ON TASK!!!!!!!!!!!
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<th>Demonstration of Features</th>
<th>Technology Skills</th>
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<td>Technology Skills</td>
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<td>Key Concepts</td>
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<td>CA1.2: Final project timeline</td>
<td>17. Be involved in the process</td>
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<td></td>
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<td>CA1.2: Final project timeline</td>
<td>CA1.2: Final project timeline</td>
<td>17. Be involved in the process</td>
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<td>CA2: Advanced animation</td>
<td>Computer Animation</td>
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<td>CA2: Animation</td>
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<td>Grade Level: High School 9-12</td>
<td>Content Standard: All students will apply skills and knowledge to perform in the arts.</td>
<td>Computer Animation</td>
<td>Computer Animation</td>
<td>15. Integrate art and music</td>
</tr>
<tr>
<td>Content Standard: Performing</td>
<td>Computer Animation</td>
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</tr>
<tr>
<td>CA2: Computer Animation</td>
<td>Computer Animation</td>
<td>Computer Animation</td>
<td>Computer Animation</td>
<td>15. Integrate art and music</td>
</tr>
</tbody>
</table>
| and presentation of a final product or exhibit. | incorporates multiple features and includes multiple scenes | Motion Tween animation  
Shape Tween animation  
Buttons for user interactivity  
Sound files  
Multiple Scenes  
Text animation  
Motion guide  
CA2: Animated graphic symbols  
Use of Movie clip symbols  
Animated Buttons  
Advanced ActionScripting | with Flash animation  
Show examples of student work from previous semesters | evaluation using assessment rubric |
**Content Strand:** CREATING  
**Content Standard 2:** All students will apply skills and knowledge to create in the arts.  
**Grade Level:** High School 9-12

<table>
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<tr>
<th>State Benchmark</th>
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<th>Key Concepts</th>
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</tr>
</thead>
</table>
| 19. Apply materials, techniques, and processes with sufficient skill, confidence, and sensitivity that personal intentions are carried out in artworks. | CA1&2: Student will demonstrate an understanding of the Flash software and produce Flash movies that incorporate the appropriate software features | CA1: Use of Flash tools in drawing  
Motion tween  
Motion Guide layer  
Shape tween  
Masks  
ActionScripts  
Import bitmap files  
Text animation  
CA2: Animate buttons  
Movie Clip Symbols  
Animated Graphic Symbols | Demonstration of drawing tools, motion tween and shape tween, use Mask and Mask layer, etc.  
Web sites that make use of applicable features | Teacher evaluation using assessment rubric |
| 20. Create artworks that use organizational principles and functions to solve specific visual arts problems. | CA1: Students will be able to use the timeline effectively to produce movies with various effects  
CA2: Students will be able to produce movies using movie clips, scenes, and symbols from the library panel | CA1: Good timeline planning techniques  
CA2: Using movie clips and scenes  
Using the Library Panel for symbols | Explanation with examples  
Demonstration/modeling  
Student Practice on given assignments | Teacher evaluation using assessment rubric |
| 21. Describe the origins of specific images and ideas and explain why they are of value in their artwork and in the work of others. | CA1: Students can identify several early animated characters  
CA2: Students will find the names of several early animated characters | CA1&2: Frame-by-frame animation used by early animators | Show examples of original Mickey Mouse, Mighty Mouse, and other early animated characters | Verbal questions only |
<p>| 22. Apply and adapt subjects, symbols, and creative ideas in | CA1&amp;2: Students will produce a movie that | CA1: Using graphic symbols and instances | Demonstration of the use of the Library Panel |</p>
<table>
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<tbody>
<tr>
<td><strong>23. Demonstrate an improved ability to integrate structures, characteristics and principles to accomplish commercial, personal, communal, or other purposes of art.</strong></td>
<td>CA1&amp;2: Students will produce a movie that depicts their opinion on a given topic.</td>
<td>CA1&amp;2: Using animation to express an opinion</td>
<td>Show examples of previous student work</td>
</tr>
<tr>
<td><strong>24. Create media productions that demonstrate knowledge, contexts, values, and aesthetics.</strong></td>
<td>CA1&amp;2: Students will produce a holiday theme-based movie</td>
<td>CA1: Use of Flash tools Tweens Motion Guide layer Masks ActionScripts Import bitmap files Text animation CA2: Animate buttons Movie Clip Symbols Animated Graphic Symbols</td>
<td>Web search for data on topic Examples of previous student work</td>
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**Content Strand: ANALYZING IN CONTEXT**

**Content Standard 3:** All students will analyze, describe and evaluate works of art.

**Grade Level:** High School 9-12

<table>
<thead>
<tr>
<th>State Benchmark</th>
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</tr>
</thead>
</table>
| 20. Analyze the effectiveness of selections in communicating ideas and reflect upon the effectiveness of choices. | CA1&2: Students will be able to discuss the purpose and design of a given Web site | CA1&2: Identifying the target audience  
Effective Web design principles | Class views Macromedia Site of the Day | Instructor led class discussion |
| 21. Identify intentions of artists, explore the implications of various purposes, and justify analyses of purposes in particular works. | CA1&2: Students will be able to discuss the purpose and design of a given Web site | CA1&2: Differences/similarities between personal, commercial, and informative Web sites | View Macromedia’s Site of the Day | Student analysis of a given Site where its purpose/category is correctly identified |
| 22. Describe how expressive features and organizational principles cause responses. | CA1&2: Students will be able to discuss and critique the design of a given Web site | CA1&2: Organization of Web sites including navigation bars and links | Macromedia Site of the Day | Instructor led class discussion  
Student critiques |
| 23. Reflect upon the characteristics and assess the merits of one’s personal artwork. | CA1&2: Student will critique a completed movie assignment using a teacher-provided rubric | CA1&2: Apply a rubric to an assignment.  
Self-evaluation. | Discussion of the specifications for a movie assignment  
Example of using a rubric to evaluate a movie assignment | Student self-assessment |
| 24. Reflect and analyze the personal experiences that influence the development of personal artwork. | CA1&2: Students will give examples of how their personal experiences have influenced their choices in at least one of their movie projects. | CA1&2: Self-evaluation | Show examples of student work from previous semesters | Teacher observation  
Class discussion |
### Content Strand: ARTS IN CONTEXT

**Content Standard 4:** All students will understand, analyze, and describe the arts in their historical, social, and cultural contexts.

**Grade Level:** High School 9-12

<table>
<thead>
<tr>
<th>State Benchmark</th>
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<th>Key Concepts</th>
<th>Instructional Tasks</th>
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</tr>
</thead>
<tbody>
<tr>
<td>1. Reflect on how the subjects, ideas, and symbols of artworks differ visually, spatially, temporally, and functionally with respect to history and culture.</td>
<td>CA1: Students will be able to discuss the similarities/differences between early animated 2D Disney films and those produced recently&lt;br&gt;CA2: Students will be able to provide examples of and discuss the historical/cultural differences between early and current animation.</td>
<td>CA1&amp;2: Recognizing historical/cultural differences between early animated movies and current animated movies</td>
<td>Show segments of early 2D animated movies such as Snow White or Bambi. Show segments of current 2D animated movies&lt;br&gt;Discussion of cultural aspects</td>
<td>Teacher observation&lt;br&gt;Class discussion</td>
</tr>
<tr>
<td>2. Describe the functions and explore the meaning of specific art objects within varied cultures, times, and places.</td>
<td>CA1: Students will be able to distinguish between Japanese animation and American animation when shown examples of each.&lt;br&gt;CA2: Students will be able to provide examples of animations from other countries.</td>
<td>CA1&amp;2: Comparison of animation from other countries to American animation</td>
<td>Show Internet examples of Japanese animation</td>
<td>Teacher observation&lt;br&gt;Class discussion</td>
</tr>
<tr>
<td>3. Analyze relationships of works of art to one another in terms of history, aesthetics, and culture, justifying conclusions made in the analysis and using conclusions to inform personal artwork.</td>
<td>CA1&amp;2: Students will be able to analyze animation in advertising and create an advertisement of a given product&lt;br&gt;CA2: Students will be able to analyze animation in advertising and create an advertisement of a product of their choice.</td>
<td>CA1&amp;2: Use of animation in advertising to draw attention of consumers&lt;br&gt;Making effective use of a small amount of space</td>
<td>Show examples of animation in advertising on the Web</td>
<td>Teacher evaluation using assessment rubric</td>
</tr>
</tbody>
</table>
### Content Strand: CONNECTING TO OTHER ARTS, OTHER DISCIPLINES, AND LIFE

#### Content Standard 5: All students will recognize, analyze, and describe connections among the arts; between the arts and other disciplines; between the arts and everyday life.

#### Grade Level: High School 9-12

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>16. Speculate and analyze how future technologies may impact art in everyday life.</td>
<td>CA1&amp;2: Student will speculate as to the future uses of animation on the web as well as within other venues</td>
<td>CA1&amp;2: Web sites have moved away from static to dynamic content depending on the purpose of the site</td>
<td>Present Internet sites that cover the various areas of certification related to computer animation and Web design</td>
<td>Verbal discussion only with teacher observation</td>
</tr>
<tr>
<td>17. Describe the characteristics of a variety of visual arts careers.</td>
<td>CA1&amp;2: Students will be able to articulate the various levels of computer industry certification in visual arts and animation and the vendors who support/provide them.</td>
<td>CA1&amp;2: Industry Certification areas: Flash certifications CW1 certifications Web Designer Design Architect Systems Analyst Animator Game Developer</td>
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</tr>
<tr>
<td>18. Compare the materials, technologies, techniques, and processes of the visual arts with those of other arts disciplines as they are used in creating and types of analysis.</td>
<td>CA1: Students will be able to draw an object on screen when given a simple analog character CA2: Students will be able to draw an object on screen from an analog character that they provide</td>
<td>CA1&amp;2: Drawing by hand versus drawing by computer</td>
<td>Show examples of analog cartoon objects and compare to digital objects</td>
<td>Student self-evaluation</td>
</tr>
<tr>
<td>19. Compare characteristics of visual arts within a particular historical period or style with ideas, issues, or themes in the humanities or sciences.</td>
<td>CA1: Students will produce a movie that depicts their opinions on the various forms of violence in society CA2: Students will produce a movie that depicts the implications of either a current or past social issue.</td>
<td>CA1&amp;2: Understanding social implications and how to effectively portray them within an animation</td>
<td>Discuss possible social issues appropriate for the assignment and methods of portraying them. Show examples of previous student work.</td>
<td>Teacher evaluation using assessment rubric</td>
</tr>
</tbody>
</table>


Computer Terms

taskbar

URL

cursor

mouse pointer

I-beam pointer

minimize button

restore down

close button

maximize button

search engine
Flash Lesson 1

Start Flash

Click Create New

Maximize window if necessary

Window>Panel Sets>Default Layout

Right Click to close:
   Actions
   Components
   Component Inspector
   Behaviors

Look at Windows, Development Panels they can be brought up

Keep: Properties Visible
   Color Mixer (collapsed)
   Help (collapsed)

** Can click title bar of panels to collapse and expand

Windows Menu:
   Properties
   Timeline
   Tools
   Untitled-1 >should all be checked

Discuss:
   Timeline
   Tools Panel
   Menu bar
   Magnification (100%)

Modify>Properties (go over)

In Properties Panel:
   Click 550x400 pixels button (same thing comes up)

   Background Color swatch—change color

Save As: H: drive devenvironment (adds .fla)
Flash Lesson 2

Start Flash

Click Open (left side of red box)

Go to Shared Drive>Hanson folder>Flash MX 2004 Design Professional Support Files folder>Chapter A>fla_1.fla

View>Magnification>Fit in Window

Control>Play (watch playhead)

Control>Rewind

Can hit ENTER to play movie
    Enter stops movie before finished

**Practice playing & stopping with Enter

Window>Toolbars>Controller
    Play with control buttons -- Close controller

Control>Loop Playback (movie loops—plays continuously)

Control>Loop Playback (removes checkmark)

Control>Test Movie
    While it is playing: Control> see other options

“Test Move” opens movie in flash player: creates an .swf file (shockwave file)

Close Test Movie window

Close the file (save if prompted)
Creating a Motion Tween

Add layer (if necessary), give the layer an appropriate name (redcircle)

Click on the frame in the layer, not on timeline, where object should first appear

If not in frame 1, add keyframe (frame 1 is automatically a keyframe)

Draw the object

Select the object (double click or use selection tool to draw a marquee around the object)

From menu: Insert>Timeline>Create Motion Tween

On same layer, click on last frame (where object will stop moving and remain)

Add Keyframe (remember, F6 is faster)

Move object to destination

Rewind and Play your movie to make sure it works
FourObjects Movie Specs

Use 4 different objects, each on its own layer.

Name your layers appropriately.

Each object should begin in a different corner of the stage and move to the middle.

Use the same number of frames for each object, for example, start in frame 1 and end in frame 30. (you may choose the number of frames) Remember, the more frames you use, the slower your object moves.
BrightnessPractice Movie Specs

Layer 1:

Draw a star, move it to four different locations on the stage.

The star should start out on (alpha 100%), then fade off (alpha 0%), then fade on again, then off again, etc.

Layer 2:

Add a layer, draw another star, using a different number of points, use different colors from the first object.

Move it to four completely different locations.

Object should start out off, then fade on, then fade off, then on, etc.
File Format Notes

.swf  Flash Player (plug-in) not editable

 fla  Flash Program is editable

.exe  Projector File Executable file—runs independently without Player or Program
      Can be used in PowerPoint

.html  web format Viewed in Browser
or .htm

what is a browser? Allows you to view a web page—interprets the HTML code
  Internet Explorer
  Netscape
  AOL

Image File Formats—all can be in web pages

.jpg  jpeg  mostly for photographs
      +16 million colors
      lossy format

.gif  cartoons/drawings
      256 colors
      not lossy

.png  Fireworks native file format
BIG BOX Directions:

To Make the BIG BOX:

Set your stage size to 1000 x 650

Change your magnification to 25%

Draw a really large rectangle much larger than the stage, covering far beyond the edges of the stage on all four sides

Change the color

Draw a small rectangle in the middle, then select it

In the properties panel, set the height and width to 1000 x 650, and set x and y to 0.

Make sure the inner rectangle is selected, and delete it.

You now have a border over your stage covering the edges so nothing will show beyond the edges.

Make sure your BIG BOX layer is the top layer. It should be in all scenes of the movie.
MANYALIENS.FLA Movie Specs

Change the movie dimensions. Your movie should fill the entire screen in the Flash player.

Set the background color to something interesting. Your colors should be vivid (bright).

Use your www.ry-guy.com alien. You will need 4 symbols in the Library. Use multiple instances of the alien to fill the entire screen, but each needs to be a different size (OK to skew).

Each alien should fade on one at a time at differing rates. (not all aliens begin in frame 1). No 2 aliens begin in the same frame. Once on stage, the alien should remain without fading off.

You need at least 5 aliens of each color.

Animate your name to come on stage from OFF STAGE. This means when the movie begins, I cannot see your name at all. Use any font/size/color you want.
ActionScript Notes

Syntax: the grammar of a language—where the punctuation goes

ActionScript Panel:

Global Functions
  Timeline Control
  Movie Clip Control

FRAME COMMANDS:
stop(); small a appears in the frame above the keyframe

BUTTON COMMANDS:
on (release) {play();
}

on (release) {stop();
}

on (release) {gotoAndPlay(2);
}

LOOP:
gotoAndPlay(2);
Airplane Movie Specs

**Planes:**
Drawing can be cartoon-like or realistic.
One plane enters from offstage left
Neither plane should be visible when movie begins
Each plane must have its own motion guide layer and must make at least one loop
Plane should completely exit stage right

Second plane enters from offstage right
Must be instance of original plane—can be scaled or skewed
Must have its own motion guide layer and must make at least one loop

**Timing of animations:**
Second plane does not have to wait until after first plane complete exits, however, both
should NOT start in frame one.
Use EASE to change speed of objects, either accelerate or decelerate

**Buttons:**
Must have start/play button
Must have Replay/Reset button
TORNADO MOVIE SPECS

Movie Dimensions must be similar to the original .jpg

**House/Background Layer:** No motion. Need house, ground or grass below house, and dark stormy sky above house. House should be skewed somewhat. Use colors similar to original .jpg file.

**Tornado Layer:** Tornado should look similar to the original tornado.jpg. Tornado animation initial position: Tornado should move from bottom left (very small size). Tornado should scale up as it crosses diagonally to right side—no part of the tornado can exit the stage. Tornado should then cross back to left side diagonally again scaling up. Tornado should move from left to final destination over house scaling up to full size. OK to use motion guide to move tornado on other-than-straight path.

**Text Layer:** Text should be animated. Your choice of effect but should be somewhat dramatic, for example, text could start out with negative % brightness and get increasingly brighter, and could scale from small to large, then back to normal size. White text comes on first, then red text. Timing of animation: White text can begin as soon as tornado has stopped moving—not too much delay before red text enters.

**Timing:** Movie should immediately begin playing upon loading the flash player. No Buttons on this movie! Once all objects are on screen, time the frames so that no movement occurs for several seconds before looping.
Computer Animation 2

Bearcat Roar Movie Specs

Use bearcat.jpg from Animation folder on shared drive.

Object must be traced. Take the white out around the head.

Redraw bearcat so that the mouth is closed when movie begins

Closed mouth should look natural, colors should match, it should not be obvious that it is an altered drawing

Bearcat mouth should open with a tween (to original drawing size) or using frame-by-frame animation, then close again. Timing should be natural and should not pop open or take an inordinately long amount of time to open or close.

While opening, the bearcat should roar. There are sound files available in the shared drive. The timing of the mouth should match the timing of the roar.
FOUROBJECTS Rubric

Movie Assignment: Use 4 different objects, all on different layers. Name your layers appropriately. Each object should begin in a different corner of the stage and move to the middle. Use the same frames for each object, for example, start in frame 1 and end in frame 30. Movie name is FourObjects.

Each object on separate layer (25 points)

Layers named appropriately (25 points)

All objects begin in corners and move to middle (25 points)

All four objects start in frame 1 and end in the same frame. (25 points)

GRADE: ____________________
First Last

BrightnessPractice Movie Grading Rubric

- Star moves 4 times using motion tween (25 points)
- Star starts on then fades off then on then off (25 points)
- New layer for second star, 2nd start has different colors and different number of points (25 points)
- 2nd star moves 4 times — starts out off, fades on, then off, then on (25 points)

GRADE: __________________
«First» «Last»
MANYALIENS Rubric

Movie Specs:

Change the movie dimensions—you will need to determine the size yourself. Your movie should fill the entire screen in the Flash player. Set the background color to something interesting. Your colors should be vivid (bright). Use your www.ry-guy.com alien. It will need to be a symbol in the Library. Use multiple instances of the alien to fill the entire screen, but each needs to be a different size (OK to skew). You will need to have four different colors for your aliens. Each alien should appear (fade on) one at a time at differing rates. Once on stage, the alien should remain without fading off. Animate your name to come on stage from OFF STAGE. This means when the movie begins, I cannot see your name at all. Use and font/size/color you want.

Movie Dimensions correct (15 points)

Background color set (5 points)

4 colored alien symbols in library (40 points)

Multiple Aliens fill screen (10 points)

Aliens fade on individually (10 points)

Name comes on stage from off stage (10 points)

Timing—aliens and name stay on stage for several seconds before loop restarts (10 points)

GRADE: ___________________
TORNADO MOVIE Grade Rubric

Movie Specs:

Movie Dimensions must be similar to the original .jpg

House/Background Layer: No motion. Need house, ground or grass below house, and dark stormy sky above house. House should be skewed somewhat. Use colors similar to original .jpg file.

Tornado Layer: Tornado should look similar to the original tornado.jpg. Tornado animation initial position: Tornado should move from bottom left (very small size). Tornado should scale up as it crosses diagonally to right side—no part of the tornado can exit the stage. Tornado should then cross back to left side diagonally again scaling up. Tornado should move from left to final destination over house scaling up to full size. OK to use motion guide to move tornado on other-than-straight path.

Text Layer: Text should be animated. Your choice of effect but should be somewhat dramatic, for example, text could start out with negative % brightness and get increasingly brighter, and could scale from small to large, then back to normal size. White text comes on first, then red text. Timing of animation: White text can begin as soon as tornado has stopped moving—not too much delay before red text enters.

Timing: Movie should immediately begin playing upon loading the flash player. No Buttons on this movie! Once all objects are on screen, time the frames so that no movement occurs for several seconds before looping.

Grade Rubric:

➢ Movie dimensions match original (15 points)

➢ Background layer: appearance similar to original (15 points)

➢ Tornado drawing is similar to original (15 points)

➢ Tornado: movement according to specs above with scale up as crosses diagonally (20 points)

➢ Text: white text appears prior to red text (15 points)

➢ Movie Timing according to specs (20 points)

GRADE: ____________________
«First» «Last»

AIRPLANE MOVIE Rubric

Neither plane should be visible when movie begins or ends (5 points)
Each plane must have its own motion guide and make at least one loop (50 points)
One plane enters from left, second plane enters from right (5 points)
Second plane must be instance of original plane—can be scaled or skewed (5 points)
Start button works and is visible in frame one only (15 points)
Reset button works and appears only in last frame (15 points)
Stop action in first and last frame on separate layers (5 points)

GRADE: __________________
DEATH PENALTY MOVIE Grade Rubric
Final Assessment – Computer Animation 1

Part 1: Drawings/design (50 points)

Fabulous, impressive, creative.

Multiple Flash features to possibly include, where appropriate, mask layer, motion guide, shape tween, text effects, and drawing skills.

Smooth transitions between scenes.

No text paragraphs.

Fully develop the concept and make sure I can tell whether you are pro or con.

Part 2: Actionscript (10 points)

No buttons

Stop action at the end of the movie.

Part 3: Timing (20 points)

Images/text remain on screen for an appropriate length of time so that text can be read but audience is not waiting.

Part 4: Credits (10 points)

Last Scene: “credits” section depicting you as the author of the movie and should include some type of closing. Also cite all references used including Internet sites.

Part 5: Audio (10 points)

Background music (10 points)

Movie includes a minimum of 2 additional sound effects.

GRADE: ____________________
Computer Animation 2

Bearcat Roar Movie Grade Rubric

Movie Specs:

Use bearcat.jpg from Animation folder on shared drive.

Object must be traced. Take the white out around the head.

Redraw bearcat so that the mouth is closed when movie begins.

Closed mouth should look natural, colors should match, it should not be obvious that it is an altered drawing.

Bearcat mouth should open with a tween (to original drawing size) or using frame-by-frame animation, then close again. Timing should be natural and should not pop open or take an inordinately long amount of time to open or close.

While opening, the bearcat should roar. There are sound files available in the shared drive. The timing of the mouth should match the timing of the roar.

Grade Rubric:

Appearance of drawing with mouth closed (10)

Appearance of mouth while opening (50)

Open mouth matches original bearcat.jpg (20)

Timing of mouth opening/matches roar (20)

Grade: ________________
Computer Animation 2

Character Movie Grade Rubric
FINAL ASSESSMENT

Characters are original drawings created by the author (20 points)

Mouths move when characters speak. (20 points)

Each character speaks. Each line is a separate audio file on its own layer. (20 points)

Background music and sound effects are present. (20 points)

Story is appropriate and ends with a “moral”. (20 points)

Grade: ________________
DEATH PENALTY MOVIE SPECS
Final Assessment – Computer Animation 1

**FLASH Requirements:**

This one needs to be long, fabulous, impressive, creative.

Incorporate Flash features including mask layer, motion guide, shape tween, text effects, sound, and drawing skills.

Need smooth transitions between scenes.

No buttons, this is an audience movie. Needs a stop action at the end of the movie. It will be based on frame timing (use the default frame rate).

Any image or text should remain on screen for an appropriate length of time—for example, any text should have enough frames such that the audience can completely read it. NO PARAGRAPHS!!!!

Last Scene: This is your “credits” section depicting you as the author of the movie and should include some type of closing.

**AUDIO Requirements:**

Must have background music.

Need at least 2 other sound effects.

**THEME:**

Fully develop the concept as discussed in class and make sure I can tell whether you are pro or con. If you ride the fence, you’ll have to develop both pro and con.

**FINAL SCENE:**

Use some type of appropriate closing. Include a credits section where you depict yourself as the author and list your references including the Internet sites you used for information or images.
DEATH PENALTY MOVIE Grade Rubric
Final Assessment – Computer Animation 1

Part 1: Drawings/design (50 points)

Fabulous, impressive, creative.

Multiple Flash features to possibly include, where appropriate, mask layer, motion guide, shape tween, text effects, and drawing skills.

Smooth transitions between scenes.

No text paragraphs.

Fully develop the concept and make sure I can tell whether you are pro or con.

Part 2: Actionscript (10 points)

No buttons

Stop action at the end of the movie.

Part 3: Timing (20 points)

Images/text remain on screen for an appropriate length of time so that text can be read but audience is not waiting.

Part 4: Credits (10 points)

Last Scene: “credits” section depicting you as the author of the movie and should include some type of closing. Also cite all references used including Internet sites.

Part 5: Audio (10 points)

Background music (10 points)

Movie includes a minimum of 2 additional sound effects.

GRADE: ___________________
Character Movie Specs

FINAL ASSESSMENT

Needs a minimum of two characters, characters can be people, animals, aliens, shoes, birds, fictitious creatures, whatever.

Needs background sound effects and music---music does not have to play throughout.

Must write a script----this will be GRADED!!!!!!

Dialog: characters need to have a conversation, each character must speak. Record voices with microphone. Record each line from your script as a separate audio file using Sound Recorder.

Story must have a moral (can be something funny—NEED TEACHER APPROVAL on story line). Story should be appropriate for a large audience, such as at the annual Fine Arts performance at KCC.

Examples— "The moral of the story is . . . "

- Don’t count your chickens before they hatch
- Give more, expect less.
- Honesty is the best policy (don’t tell lies)
- He who laughs last, laughs best
- Beauty is in the eye of the beholder
- What goes around, comes around
- Don’t judge a book by its cover
- Save for a rainy day
- A stitch in time saves nine
- A bird in the hand is worth two in the bush
- The grass isn’t always greener on the other side of the fence (it just seems like it sometimes)
- Darkest before the dawn
- It’s not over till the fat lady sings.
Character Movie Grade Rubric
FINAL ASSESSMENT

Characters are original drawings created by the author (20 points)

Mouths move when characters speak. (20 points)

Each character speaks. Each line is a separate audio file on its own layer. (20 points)

Background music and sound effects are present. (20 points)

Story is appropriate and ends with a “moral”. (20 points)

Grade: ________________
Computer Animation 1
Pacing Guide

Prior Knowledge/Prerequisite Skills: Upon entry into the class, the student should have knowledge of basic computer components: keyboard, monitor, system, mouse. The student should have had experience using a mouse: left click, right click, click and drag. The student should also understand the concept of saving, opening, and closing a file. The student should have experience using the Internet to view Web pages and navigate through a site using links. The student needs no previous experience using Macromedia Flash MX 2004.

I=Concept Introduced
R=Concept Reinforced
B=Concept Benchmarked

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<td>Search the Web for industry certifications that</td>
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|   | Involve Web design and/or Flash animation  
Discuss Macromedia certifications  
Discuss CIW certifications |   |   |
|---|---|---|---|
| 15 | Discuss early animators/animation characters | CS2, 21 | Internet  
Instructor Examples |
| 16 | Compare/contrast early 2D animated Disney movies to current 2D animated Disney movies | CS4, 1 | Instructor Examples  
Internet |
| 17-18 | Final Evaluation using scenes, sound, motion tween, text, and animation effects using Macromedia Flash MX 2004  
- Death Penalty—B | CS1, 14-17  
CS2, 19-20, 22-24 | Instructor Examples |
Computer Animation 2
Pacing Guide

Prior Knowledge/Prerequisite Skills: Upon entry into the class, students should have experience using the Internet to view Web pages and navigate through a website. Students should also have had experience using Macromedia Flash MX 2004 through the Computer Animation 1 class or equivalent as determined by the instructor. This level of animation is project-oriented and the assignments are time consuming. The work done by the Computer Animation 2 class is intended for possible presentation in the Fine Arts Annual Performance in the spring semester.

I=Concept Introduced
R=Concept Reinforced
B=ConceptBenchmarked

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  - Chapter F—I/R | CS1, 14  
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CS4, 1-3 | Flash Program  
Macromedia Flash MX 2004  
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| 3 | Use Flash to break apart images and trace bitmap graphics  
  - Ch G—bitmap trace—I | CS1, 14  
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| 3-4 | Apply multiple features to produce an animation from a well-known nursery rhyme for use on the Internet  
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| 5-6 | Types of animations. Movie Clips Symbols.  
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|     | - Snow Globe movie—R | CS1, 14-17  
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<td>Themed movies will have play/replay buttons.</td>
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<td>Themes movies will have sound and will apply multiple Flash features such as Masking, Motion Guides, Symbols/Instances, and Movie Clips</td>
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MAKING THE CASE:
The Arts and Youth Development

AN ARTS IN EDUCATION COMPENDIUM BROUGHT TO YOU BY
ARTSERVE MICHIGAN
Dear Reader:

Music, dance, drama and the visual arts are languages. They touch people's minds and hearts. They give expression to the profound urgings of the human spirit. Indeed, the symbols the arts use can measure the quality of civilization.

Arts literacy is as basic as linguistic literacy because it enlarges the store of the images we use.

Research shows that an education in the arts can spark intelligence, boost academic achievement, assist in the development of workplace skills, promote discipline and good citizenship and enhance one's self-esteem and tolerance of others. For children to develop their abilities and realize their fullest potential, they need to be exposed to many ways of knowing their world and expressing their thoughts. If the artistic side of their education is neglected or ignored in school instruction, then a primary growth opportunity is missed.

William Sederburg
Chair
Board of Directors
ArtServe Michigan

Steve Kaagan
Chair, Education Committee
ArtServe Michigan

Barbara Kratchman
President
ArtServe Michigan
Introduction

Historically, arts education was often considered an “extra” in our schools — a stand-alone subject that would give students some cultural appreciation and an opportunity to experiment with paint, movement or musical instruments. During the last decade of the twentieth century, there arose a broader view of arts education. Research began to validate what educators had long suspected: that an arts education contributes significantly to a student’s development.

Because of the increasing interest in the arts as a means of developing human potential, educators have been successful in having the arts designated a core academic subject as part of the reauthorization of the Elementary and Secondary Education Act — No Child Left Behind. The No Child Left Behind Act 2001 includes in almost every section support and assistance for “core academic subjects.” In response to this federal law, the National Art Education Association has developed standards for art education for students from K-12, and key national educational organizations (the National School Boards Association, the American Federation of Teachers and the National Education Association) are providing formal support for arts educators.

ArtServe Michigan contributes this evidentiary paper to the case for an arts education. It demonstrates that work in the arts develops unique and important mental skills, that accomplishments in this venue represent the highest of human achievements and that the school is the only institution able to provide access to the arts for the vast majority of students. In effect, it summarizes how an arts education helps young people:

- Expand their creative and critical capacities
- Enhance problem-solving skills
- Increase cross-cultural understanding
- Build self-esteem
- Gain skills useful in today’s workplace

Promoting Brain Power

"I grew up in a tough neighborhood in East LA, so I’m not going to feed you some line about how the arts are great or make the world more beautiful. I am going to let you in on a fact. Arts education makes a smarter kid...a kid who studies better, thinks creatively, and solves problems...even if he’s not a great artist."

Edward James Olmos, Actor

The case for arts education as an overall stimulus to learning ability is bolstered by actual studies of brain activity. Researchers have found that during the early years of human development, an infant’s brain is developing billions of synapses or connections that lay the communications groundwork for future learning. This growth spurt reaches its highest density at age 2 when the brain contains twice as many synapses and consumes twice as much energy as that of a normal adult.
The abundance of nerve connections during infancy gives the brain an exceptional ability for learning, and this learning is compounded by exposure to the arts. Sound, language, movement and visual images engage the entire brain and so contribute to its development. Thus does experience become the chief architect of the brain. Science has further demonstrated that continuously stimulated synapses continue to grow between the ages of 2 and 10, while the ones used less frequently are eliminated.\(^1\)

According to Howard Gardner, author of *Frames of Mind: The Theory of Multiple Intelligences* and *Multiple Intelligences: The Theory in Practice*, an education in the arts uses multiple forms of intelligence, in contrast to traditional academic subject areas that generally focus on specific types of intelligence, such as linguistics or logic. Other studies support this conclusion by showing how the arts offer unique forms of expression and communication\(^2\) that help to develop intuition, reasoning, imagination and dexterity, contributing to every aspect of a child’s school life.

### The Arts and Enhanced Learning

*I believe very strongly that the arts are an important part of a total curriculum. I like the pride in kids’ faces when they create something. It’s like the sun shining because it gives them a positive attitude and makes them feel good about themselves.*

Dr. Fred Neal, Principal, Barton Elementary School, Detroit, Michigan

Not only do the arts assist in the development of basic brain power, they also serve as the building blocks for learning. Educators and arts supporters have long argued that the arts support or enhance the three Rs by helping children read, write, calculate and understand scientific concepts.

A longitudinal study of 25,000 eighth and tenth graders revealed that involvement with the arts was linked to higher academic performance, increased standardized test scores and lower dropout rates. Another study, however, from Harvard University’s Project Zero, found that most research testing the effects of the arts on learning was not quantifiable.\(^3\) Although the Harvard study found a correlation between studying the arts and academic achievement when measured primarily by test scores, the researchers could not support the theory that studying the arts can cause academic indicators to improve.\(^4\) In other words, they were only able to establish relationship — rather than causality.

While it cannot be demonstrated that the arts promote all kinds of learning, there is evidence linking certain kinds of learning to certain of the arts. The three areas in which clear links between art and learning could be demonstrated are:

- Listening to music and spatial-temporal reasoning

\(^1\) AEP Task Force & Advocacy Position Paper, *Children’s Learning and the Arts: Birth to Age 8*

\(^2\) Consortium of National Arts Education Associations, *What Every Young American Should Know and Be Able to Do in The Arts: National Standards for Arts Education*, 1994

\(^3\) Education Week, *Does Studying the Arts Enhance Academic Achievement?* November 2000.

\(^4\) Project Zero’s REAP (Reviewing Education and the Arts Project)
- Learning to play music and spatial reasoning
- Classroom drama and verbal skills

Researchers at the University of California-Irvine and the University of Wisconsin examined the relationship between music and spatial reasoning in 1997 and found that second graders who received four months of piano instruction scored 15 percent to 41 percent higher on math assessment tests. Music instruction can improve a child's spatial intelligence for long periods of time, affirmed one of the study's authors, psychologist Frances Rauscher of the University of California-Irvine, in a speech to the American Psychological Association.

Another study conducted by Art Harreli, director of public school music for the Wichita, Kansas, public school system, found that 13,000 children in 42 schools who participated in an Elementary and Secondary Education Act Title I program with additional art, music, physical education and industrial arts showed improvement in mathematics although their IQ scores were no higher than other children not entered in the project.

A link between classroom drama (acting out texts), oral understanding, recall, reading readiness, reading achievement, oral language, and writing has been documented in several reports. Most notable is a study conducted by Annette Gourgey, Jason Bosseau, and Judith Delgado that detected a strong connection between drama skills and literacy in New Jersey's Arts Alternatives program. They also found that vocabulary and reading comprehension were significantly improved for elementary students in the same program.

While there are no clear-cut, quantifiable results concerning the effects of arts education on students, there is an enormous amount of research showing that the integration of art activities with mathematics and reading can enhance the learning of specific concepts.

Since it was first advocated in the 1930s, curriculum integration has been successful in providing information to the brain in the way that it naturally processes it. Sam Cromwell found that the brain organizes new knowledge on the basis of previous experiences and the meaning developed from those experiences. Caine and Caine connected neuropsychology and educational methodologies when they stated that the search for meaning and patterns is a basic process of the human brain. In fact, they found that the brain might resist learning fragmented facts that are presented in isolation.

Kathy Lake of the Northwest Regional Educational Laboratory found that integrating a curriculum provides students with a meaningful learning experience that develops skills and knowledge while leading to an understanding of conceptual relationships. In *Interdisciplinary Methods: A Thematic Approach*, A. Humphreys stated that integrated

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5 The Impact of an Improvisational Dramatics Program on Student Attitudes and Achievement. 1985
7 Lake, Kathy, "Integrated Curriculum," School Improvement Research Series, Northwest Regional Educational Laboratory
study is one of the most effective ways to link the humanities, communication arts, natural sciences, mathematics, social studies, music and art. It offers children a broad knowledge of various subjects.

A study of the Humanitas program, an interdisciplinary, thematic, team-based approach to high school humanities in Los Angeles, included performance-based assessments; surveys of teachers, students, and administrators; classroom observations; teacher and student interviews; analysis of assignments and examinations; analysis of portfolios; records of student attendance; records of discipline incidents; and records of college-oriented behavior and standardized tests. These elements were compared to those of 16 other more traditional programs, making it one of the most thorough explorations of curriculum integration.

The findings show that the Humanitas program had a "statistically significant effect on writing and content knowledge, even after only one year, with the largest gains in conceptual understanding. The control groups of students made no similar gains in conceptual understanding during the same time frame."

Researchers also found that students in the Humanitas program stayed in school longer, worked harder and liked school better. All this despite the fact that the program was more complex, with students required to discuss connections between content areas and the real world and to write essays linking topics in art history, literature and social institutions to their own lives.

This positive correlation between student participation in the arts, overall academic achievement and low dropout rates has been further supported by studies at Stanford University as well as by longitudinal studies conducted by the National Center for Education Statistics.

**Developing School-to-Work Skills**

*Workers must be equipped not simply with technical know-how but also with the ability to create, analyze, and transform information and to interact effectively with others.*

Alan Greenspan, Chairman of The Federal Reserve Board. National Skills Summit 2000

*Ideas are what matter, and the ability to generate ideas, to bring to life and to communicate them are what matters to a successful workplace. Working in the classroom or studio as an artist, the young person is learning and practicing future workplace behaviors.*


In this age of rapidly advancing technology, business executives seek employees with imagination and creativity, talents fostered through arts education.

Creativity may be an exciting new musical composition or simply the willingness to displace old perceptions and ways with new ones. Innovation is not only a creative

process but also a means of implementation. Technical inventions, conceptual breakthroughs in arms negotiation, the introduction of new services and products in the marketplace, the development of entrepreneurial businesses are all examples of innovation. And innovation can be cultivated and nourished by arts education that incorporates contemplation, explanation of the unexpected and consideration of the new into its discipline.

As Stephanie B. Perrin, head of a school in Natick, MA devoted to excellence in the arts and academics states, a technological and international postmodern culture requires workers who are imaginative and critical thinkers, able to work effectively on their own or with others. These workers need to be able to function in changing ambiguous situations, to envision new realities, provide solutions to problems and act with confidence on their ideas.9

Citing cities such as Dallas and Washington, DC where arts magnet high schools have consistently high retention rates, low absenteeism and the greatest number of graduates going on to further training after graduation, Perrin surmises that the schools succeed by engaging students in learning. They capitalize on the student's desire to learn, providing the motivation for their "wanting" to stay in school. Arts education is the key, she asserts, because it develops character.

The way students are educated through the arts helps them develop skills and attitudes necessary in the work place. Arts education teaches the student about ownership. The student chooses the art with the knowledge that success or failure will depend on his or her efforts. Success, as the student learns through hands-on experience, comes through discipline and hard work. The ability to work in teams, interpersonal skills, understanding, tolerance, an appreciation for diversity and an ability to lead and communicate effectively, listed as important skills for the worker of the future in a 1992 report by the US Department of Labor10, are also taught through the arts.

In fact, the US Department of Labor recognized the importance of arts education as key to skill development in its Secretary's Commission on Achieving Necessary Skills (SCANS) Report 2000.11

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9 Perrin, Stephanie B., Education Through the Arts in Secondary Schools <http://newhorizons.org/ofc_cabperrin2.html>
10 US Department of Labor, What Work Requires at School for Workers in the Year 2000, 1992
Citizenship and Civility

"Kids come in here — belligerent, defensive. They might whine, cuss and point fingers, but they don't want to talk about life experiences and the feelings that got them here. But, when you give a kid a piece of paper and a pencil and they start drawing, they just release. Whole life stories pour out and then we can really help."

Reigen Folks, artist and juvenile court counselor, Washtenaw County, Michigan

For at-risk youth, truancy and school failure are the two most significant predictors of delinquent behavior, according to US Department of Justice research. Youth vandalize with graffiti and join gangs in search of recognition, achievement and self-expression. The arts provide a different way to address these needs.

Learning to play a musical instrument, rehearsing a play or executing a mosaic mural requires long hours of practice, focus and perseverance — all components of self-discipline, a trait that many at-risk youth are desperately lacking. The process of artistic creation offers kids the chance to explore and master a skill through which they express themselves and, in the presentation of finished work, share feelings and ideas. The opportunity to venture to new places, experience other cultures and work with people whose lives and language differ from their own, gives students the chance to broaden their identity by comparing their lives with those they see in their travels.

Arts activities motivate a process of goal setting and accomplishment that build confidence and enthusiasm. They help students approach daily challenges with the hope and energy that it takes not just to survive, but to triumph. They also have a profound effect on at-risk youth, motivating them to stay in school. At the New York Alternative School in Tillson — a "last chance" school for truant youth and dropouts — the graduation rate has nearly doubled to 83 percent since the arts partnership with Mill Street Loft was initiated in 1992. The Boys Choir of Harlem reports that 98 percent of its members graduate from high school and go on to college.

The odds of these students becoming productive members of our communities is significant, considering that the unemployment rate of high school dropouts is 70 percent higher than that of high school graduates. "Through the arts we give youth a positive outlet for their ideas and talents, so they create and not destroy," says Shay Bilchick of the Justice Department's Office of Juvenile Justice and Delinquency.

The arts are offering a way to change old paradigms which may lead to better choices and social integration. The number of local arts agencies in the 50 largest U.S. cities with arts programs for youth at risk increased from approximately 20 percent in 1986 to 82 percent in 1997. In a national study, three cities that rigorously evaluated their arts programs for at-risk youth found that these programs decreased involvement in delinquent behavior, increased academic achievement and improved youths' attitudes about themselves and their future.

According to findings of researchers provided by the US Department of Justice, participants in these youth arts programs showed the following improvements:
• Increased ability to express anger appropriately, to communicate effectively with adults and their peers and to cooperate with others
• Increased ability to work on tasks from start to finish, vital for both academic and vocational success
• More likely to show improvements in their attitudes toward school, self-esteem and self-efficacy than nonparticipating youth
• Fewer new court referrals during the program period compared with non-participating youth

Arts programs are successful at attracting, engaging and retaining even the toughest kids. These youth — including gang members and previously incarcerated teens — join arts programs and return time and again. Drawing them is:

• The thrill of creative and artistic expression
• Community recognition for performances, exhibitions or public art works
• Learning new job skills
• Learning how to use the arts to communicate difficult thoughts and emotions

Juvenile justice programs, including probation and detention, may be the only options for some youngsters who are a danger to their community. But the more than 4,000,000 at-risk children growing up in severely distressed neighborhoods surrounded by brutality, violence and despair deserve a chance to engage in positive, constructive activities that have been proven effective in deterring delinquent behavior. Training in the arts can provide such an opportunity. Given the huge personal and societal costs of school dropouts and juvenile crime, arts education offers a very practical approach to changing the course of troubled young people of varied ages and backgrounds.

Bridging the Cultural Divide

The arts are not a frill. The arts are a response to our individuality and our nature, and help to shape our identity. What is there that can transcend deep differences and stubborn divisions? The arts. They have a wonderful universality. Art has the potential to unify. It can speak in many languages without a translator. The arts do not discriminate. The arts can lift us up.

Former Texas Congresswoman Barbara Jordan

The arts transcend nationality, ethnic identity, race and gender, and an arts education provides a universal language that is able to cut across cultural barriers. In this multicultural millennium, anything that unites people is critical to our future well being. According to the Carnegie Commission Report on Adolescence, one-third of American adolescents today are of non-European descent. By the year 2050, close to 50 percent of the American population will be non-Caucasian. In 26 California cities, there is no single racial ethnic majority. Learning to live peacefully while respecting diversity will be a major task for adults who are presently adolescents in our schools.

A broad arts education bridges the gap between cultures by exposing students to different artistic disciplines and traditions and teaching respect for alternative ways of
expressing ideas and emotions. Students relate to each other through common goals, techniques and training, instead of the eat-the-food, national-costume "international days" found in most schools. For students from diverse ethnic backgrounds, multicultural arts programs can also provide a "voice" for their cultures and help with their sense of identity and self-expression.\(^\text{12}\)

Conclusion

"...because what you are doing is working tirelessly for the day when every single child in every school in America can pick up a paintbrush and create a future."

Hillary Rodham Clinton

As we have seen in these many examples, arts education contributes significantly to students' development in a number of profound ways. It is not enough, however, to simply cite the evidence. There is a growing sense of urgency surrounding this issue, as our young people grow up to live in a light-speed, high tech world that leaves little time or space for reflection and understanding.

When a nation is at risk, when vast numbers of functional illiterates are leaving our schools, when remedial courses are over-subscribed at even the most selective colleges, the case for art in our schools is especially daunting. How can one recommend that the schools' most precious resource—time—be directed from the basics of education to the luxury of art?

On the other hand, how can one not make such a recommendation?

When we define the school curriculum, we define what students will learn and what will influence the character of their mental lives. What children think about, what they experience and the distance their imaginative life allows them to travel are all shaped by their educational lives. It can be reasonably argued that the school's curriculum is a mind-altering device.

For the most part, the tasks that students confront in their schools are characterized by a rule-governed structure. Math problems require that children learn four basic operations. Spelling requires learning the correct and incorrect ways to arrange the letters into words. Punctuation also follows rules. The vast majority of academic tasks young children encounter in school are driven by a system that provides little space for personal interpretation; right and wrong are a part of the lexicon that elementary school children are taught to internalize.

Such conditions can lead to a population of rule followers. Children, John Dewey said, learn the covert lessons as well as the explicit lessons they are taught. When the school's curriculum is heavily weighted toward rule-governed learning, the student expects every problem to have a correct and incorrect answer.

\(^\text{12}\) James S. Catterall and Darby
But real life doesn’t work that way. The problems that perplex us as adults are not those that can be treated by algorithms and verified by proof. They require an ability to cope with ambiguity, to experience nuance and to weigh the tradeoffs among alternative courses of action, skills that characterize our most adult tasks. When the tasks and content that children encounter in school are challenging, they help develop these skills, producing individuals who use judgment.

The arts are important not only because of what they represent, but because of the ways in which they engage and develop human intellectual ability. In the arts there is no single correct answer to an artistic problem; there are many. There is no algorithm that one can employ to solve an artistic problem; one must depend upon that most exquisite of human capacities — judgment.

To learn to see and to make visual form is a complex and subtle task. The child needs to learn how to look, not simply to assign a label to what is seen. Artistic tasks, unlike so much of what is now taught in schools, develop the ability to judge, to assess, and to experience a range of meanings that exceed what we are able to say in words. The arts, more than any other area of human endeavor, explore the limits of our consciousness.

But even though they represent the highest levels of human achievement in our culture, the arts are now afforded little place in the school curriculum. At the elementary school level in the United States, they command less than 3 percent of the instructional time per week. At the secondary level, approximately 80 percent of all high school students enroll in no fine arts courses during the four years they are in attendance. Less than 3 percent of all school districts require study in one of the fine arts as a condition for graduation.

Access denied leaves most students unable to participate in the arts and unable to develop mental skills that involvement in the arts makes possible. If the arts represent the highest of human achievements, our students should have access to them in the primary public institutions available to the vast majority of students in our nation. Not to do so is to effectively deny them the opportunity to participate in the artistic wealth of our culture.

**What’s Next?**

Arts education, whether as part of our educational system or through outside programs, cannot be taken for granted. It must have advocates in all of the settings where public policy is created, curricula developed and arts programs funded. With publication of this policy paper and adoption of the resolution which follows this conclusion, ArtServe Michigan has embarked on a long-term advocacy effort to build support for arts education. These efforts include:

1. Communicating this information. This paper is being distributed to school boards, education associations, school administrators, teachers, business
leaders, news media, government representatives, cultural and arts institutions, and community agencies to help build a case for broader arts education for young people.

2. Involving opinion leaders. ArtServe Michigan will present this data and initiate discussion of these issues at business, education and government conferences and other forums throughout the state to develop/plan for expanding arts education.

3. Providing technical assistance. In partnership with other arts organizations in Michigan, ArtServe will serve as a resource to organizations that seek to develop youth arts programs and for schools that want to integrate the arts into their core curriculum.

What Can You Do?

Discussing the subject and sharing information with others are the most significant things you can do to further the cause of arts education for Michigan youth.

You are encouraged to photocopy this document and share it with neighbors, colleagues, business and government leaders in your community, school boards, etc. Include a personal note detailing your feelings about the value of arts education.

Brochures containing the main messages of this paper are available; request a dozen or more from ArtServe Michigan and distribute them as suggested above.

Consider writing a guest editorial or letter to the editor of your community's newspapers, magazines and television stations. Encourage them to consider the evidence cited in this paper and to devote space or time to coverage of arts education activities occurring locally.

Register for ArtServe's Arts Advocacy Day in the spring and tell your state lawmakers face to face about the value of arts education and culture in general in your community.

Keep in touch with ArtServe for updates and new resources for arts education advocates. Visit www.ArtServeMichigan.org or call Education Initiatives, at 248.557.8288 x13. Also consider becoming a member of ArtServe — your annual contribution helps to keep arts education initiatives going statewide. For membership information, visit www.ArtServeMichigan.org or call 248.557.8288 x18.
The
ARTS
and the
CREATION
of
MIND

ELLIOIT W. EISNER

YALE UNIVERSITY PRESS/NEW HAVEN & LONDON
For my grandsons, Ari, Seth, and Drew. "MAY THE FORCE BE WITH YOU."
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ACKNOWLEDGMENTS

My interest in the visual arts began in elementary school. In fact the visual arts were a source of salvation for me at both the elementary and secondary school levels; I might not have got through without them. Upon graduating from my secondary school in Chicago, I enrolled as a student in the School of the Art Institute of Chicago and later in the Institute of Design of the Illinois Institute of Technology. After completing a master's degree at the Institute of Design of the Illinois Institute of Technology, I taught art in the Chicago Public Schools and later at the Laboratory School of the University of Chicago. I have worked in the field of art education for over thirty-five years. Much of what I have to say about the arts in education has been informed by my experience as a painter and as a teacher of art.

In the preparation of this book, as anyone knows who has written one, debts are owed to many people. Some are owed to scholars whose work has influenced my thinking, including the values I embrace. Rudolf Arnheim, John Dewey, Nelson Goodman, and Susanne Langer, from the philosophic arena, are among those to whom I owe my deepest philosophic debts.

In the arts in education, among many others I am indebted to Manual Barkan, David Ecker, Edmund Feldman, Jerome Hausman, and Ellen Winner.

In the field of education I am indebted to Mike Atkin, Tom Barone, Larry Cuban, Stephen Dobbs, Howard Gardner, Maxine Greene, Philip Jackson, Ray McDermott, and Alan Peshkin.
Among the most important of those on whom I have depended and tested ideas, and with whom I have consulted, are my former students. Over many years, students come to shape your life in a multitude of ways. They challenge, cajole, deflate, and encourage. I am surely indebted to those I have had the privilege of teaching.

I also wish to thank Rebecca Chan and Mary Li, from Macao and Hong Kong, respectively, for their assistance in securing for me student work done in Rebecca's class. She is an extraordinary teacher of art, and when I had the opportunity to obtain her students' work, I took advantage of the opportunity with alacrity.

Several colleagues read and commented on the manuscript in draft form. It is better because of their advice. I want to thank Hilary Austen, Doug Boughton, Kerry Freedman, and Mary Ann Stankiewicz for their helpful advice.

I especially want to express my appreciation to Shifra Schonmann for her careful and helpful constructive review of the entire manuscript. Her assistance has been invaluable.

Finally, there are two others for whom my gratitude is boundless. The first is Tanya Chamberlain, my secretary, friend, and utility infielder at Stanford. This book simply would not have been written without her care and constructive assistance in finding just the right material for me, often before I knew I needed it. She provided what I needed in countless ways.

To my wife, Ellie, I express my deepest gratitude. She knew when to afford me space, when to allow me to work on the dining room table rather than in my study, and when to turn up the heat so that I maintained the focus I needed to write coherent prose. I owe her more than I can say.
INTRODUCTION

The Arts and the Creation of Mind situates the arts in our schools and examines how they contribute to the growth of mind. Traditional views of cognition and the implications of these views for the goals and content of education have put the arts at the rim, rather than at the core, of education. Schools see their mission, at least in part, as promoting the development of the intellect. "Hard" subjects such as mathematics and science are regarded as primary resources for that development, and the processes of reading, writing, and computing are believed to be the best means for cultivating the mind. We want, especially in America today, a tough curriculum, something rigorous, a curriculum that challenges students to think and whose effects are visible in higher test scores. At best the arts are considered a minor part of this project.

Although the arts in American schools are theoretically among the so-called core subjects, and although school districts and indeed the federal government identify them as such, there is a huge ambivalence about their position in the curriculum. No one wants to be regarded as a philistine. Yet at the same time privilege of place is generally assigned to other subject areas. Despite the recent hoopla about their contributions to academic performance, the arts are regarded as nice but not necessary.

One aim of The Arts and the Creation of Mind is to dispel the idea that the arts are somehow intellectually undemanding, emotive rather than reflective operations done with the hand somehow unattached to the head. In the following pages I advance quite a different view. I argue that many of the most complex and subtle
forms of thinking take place when students have an opportunity either to work meaningfully on the creation of images—whether visual, choreographic, musical, literary, or poetic—or to scrutinize them appreciatively. To be able to create a form of experience that can be regarded as aesthetic requires a mind that animates our imaginative capacities and that promotes our ability to undergo emotionally pervaded experience. Perception is, in the end, a cognitive event.\footnote{What we see is not simply a function of what we take from the world, but what we make of it.} The world that students now live in and that they will enter as adults is riddled with ambiguities, uncertainties, the need to exercise judgment in the absence of rule, and the press of the feelingful as a source of information for making difficult choices. Whether work in the arts has consequences that extend to all aspects of the world cannot now be determined with any degree of confidence. What can be determined with a high degree of confidence is that work in the arts evokes, refines, and develops thinking in the arts. We might cautiously reason that meaningful experience in the arts might have some carryover to domains related to the sensory qualities in which the arts participate.

But carryover to the extra-artistic or extra-aesthetic aspects of life is not, in my view, the primary justification for the arts in our schools. The arts have distinctive contributions to make. I count among them the development of the thinking skills in the context of an art form, the expression and communication of distinctive forms of meaning, meaning that only artistically crafted forms can convey, and the ability to undergo forms of experience that are at once moving and touching, experiences of a consummatory nature, experiences that are treasured for their intrinsic value. These are experiences that can be secured when one attends to the world with an aesthetic frame of reference and interacts with forms that make such experience possible.

But the arts do more than serve the needs of individuals, as important as such a contribution might be. The arts, I argue, can serve as models of what educational aspiration and practice might be at its very best. To be able to think about teaching as an artful undertaking, to conceive of learning as having aesthetic features,
to regard the design of an educational environment as an artistic
task—these ways of thinking about some of the commonplaces of
education could have profound consequences for redesigning the
practice of teaching and reconceiving the context in which teach-
ing occurs.

We have had a tendency, especially in the United States, to em-
brace a form of technical rationality designed to assuage our anxi-
ety about the quality of our schools. The task that we have taken is
to specify in no uncertain terms our expectations, to prescribe con-
tent and procedures related to them—"alignment" it is called—and
then to monitor and to measure the consequences. The tacit
view is to create an efficient system, a system that will help us
achieve, without surprise or eventfulness, the aims that we seek.

The arts, in contrast, have little room on their agenda for effi-
ciency, at least as a high-level value. Efficiency is largely a virtue
for the tasks we don't like to do; few of us like to eat a great meal
efficiently or to participate in a wonderful conversation efficiently,
or indeed to make love efficiently. What we enjoy the most we
linger over. A school system designed with an overriding commit-
ment to efficiency may produce outcomes that have little endur-
ing quality. Children, like the rest of us, seldom voluntarily pursue
activities for which they receive little or no satisfaction. Experi-
encing the aesthetic in the context of intellectual and artistic work
is a source of pleasure that predicts best what students are likely to
do when they can do whatever they would like to do.

As you read this book, you will find that it often dances be-
tween references to art, by which I mean the visual arts, and ref-
ences to the arts, by which I mean all the arts. I am afraid that
consulting the context is the only way to resolve this potential am-
biguity. I hope that this acknowledged inconsistency will cause no
costernation.

Another issue that should be mentioned has to do with my
conviction that not all works of art are created equal. There are
human achievements in every culture on this earth that represent
the quintessential attainments of the human imagination, works
of such stunning accomplishment that they alter the ways in
which those who see or hear or read them look upon the world.
At the same time, I want to acknowledge that any practice whatsoever can have aesthetic or artistic qualities. This includes three-year-olds building castles in the sand as well as surgeons engaged in a life-sustaining operation. What is aesthetic depends at least in part on the way some feature of the phenomenal world is addressed. Castles in the sand may be among the beginning efforts. It falls to those of us in education to try to design the situations in which children’s efforts become increasingly more sophisticated, sensitive, imaginative, and skilled. This is no small task, and no minor achievement when realized.
THE ROLE OF THE ARTS IN TRANSFORMING CONSCIOUSNESS

EDUCATION IS THE PROCESS OF LEARNING HOW TO INVENT YOURSELF

To understand the role of the arts in transforming consciousness we must start with the biological features of the human organism, for it is these features that make it possible for us humans to establish contact with the environment in and through which we live. That environment is, in its most fundamental state, a qualitative one made up of sights and sounds, tastes and smells that can be experienced through our sensory system. Although the world of the newborn may indeed be the blooming, buzzing confusion that William James once described, it is, even in its apparently chaotic condition, an empirical environment, an environment that all humans, even newborns, can experience.¹

Experiencing the environment is, of course, a process that continues throughout life; it's the very stuff of life. It is a process that is shaped by culture, influenced by language, impacted by beliefs, affected by values, and moderated by the distinctive features of that part of ourselves we sometimes describe as our individuality. We humans give simultaneously both a personal and a cultural imprint to what we experience; the relation between the two is inextricable. But despite these mediating factors, factors that personalize and filter experience, our initial contact with the empirical world is dependent upon our biologically evolved sensory system. That
system, an extension of our nervous system, is, as Susanne Langer says, “the organ of the mind.” Listen as Susanne Langer, in her classic *Philosophy in a New Key*, describes the connection between the sensory system and the mind:

The nervous system is the organ of the mind; its center is the brain, its extremities the sense-organs; and any characteristic function it may possess must govern the work of all of its parts. In other words, the activity of our senses is “mental” not only when it reaches the brain, but in its very inception, whenever the alien world outside impinges on the furthest and smallest receptor. All sensitivity bears the stamp of mentality. “Seeing,” for instance, is not a passive process, by which meaningless impressions are stored up for the use of an organizing mind, which constructs forms out of these amorphous data to suit its own purposes. “Seeing” is itself a process of formulation; our understanding of the visible world begins in the eyes.2

The senses are our first avenues to consciousness. Without an intact sensory system we would be unaware of the qualities in the environment to which we now respond. That absence of consciousness would render us incapable of distinguishing friend from foe, of nourishing ourselves, or of communicating with others.

The ability to experience the qualitative world we inhabit is initially reflexive in character; we are biologically designed to suckle, to respond to temperature, to be sated with milk. Our biological system is designed to enable us to survive—with the help of others.3 But we also learn. We learn to see, to hear, to discern the qualitative complexities of what we taste and touch. We learn to differentiate and discriminate, to recognize and to recall. What first was a reflex response, a function of instinct, becomes a gradual search for stimulation, differentiation, exploration, and eventually for meaning. Our sensory system becomes a means through which we pursue our own development. But the sensory system does not work alone; it requires for its development the tools of culture: language, the arts, science, values, and the like. With the aid of culture we learn how to create ourselves.

The term *culture* is said to have hundreds of meanings. Two are particularly relevant to education, one anthropological, the other
biological. A culture in the anthropological sense is a shared way of life. But the term culture in the biological sense refers to a medium for growing things. Schools, I believe, like the larger society of which they are a part, function as cultures in both senses of the term. They make possible a shared way of life, a sense of belonging and community, and they are a medium for growing things, in this case children's minds. How schools are organized, what is taught in them, the kind of norms they embrace, and the relationships they foster among adults and children all matter, for they all shape the experiences that students are likely to have and in the process influence who children will become. Experience is central to growth because experience is the medium of education. Education, in turn, is the process of learning to create ourselves, and it is what the arts, both as a process and as the fruits of that process, promote. Work in the arts is not only a way of creating performances and products; it is a way of creating our lives by expanding our consciousness, shaping our dispositions, satisfying our quest for meaning, establishing contact with others, and sharing a culture.

Humans, of all living species, have the distinctive, if perhaps not the unique, ability to create a culture through which those in their community can grow. Humans can leave a legacy. Even chimpanzees, our closest genetic relatives, have, as far as we know, no cultural development that is transmitted in a progressive way from generation to generation. Three hundred years ago chimps lived as they do today. We are not only able to experience the qualitative world, as can chimps; we can also form concepts. Concepts are distilled images in any sensory form or combination of forms that are used to represent the particulars of experience. With concepts we can do two things that may very well be unique to our species: we can imagine possibilities we have not encountered, and we can try to create, in the public sphere, the new possibilities we have imagined in the private precincts of our consciousness. We can make the private public by sharing it with others.

Transforming the private into the public is a primary process of work in both art and science. Helping the young learn how to make that transformation is another of education's most important aims.
It is a process that depends initially upon the ability to experience the qualities of the environment, qualities that feed our conceptual life and that we then use to fuel our imaginative life.

I do not want to draw too sharp a distinction between the formation of concepts and the imaginative generation of the forms needed to create, for example, twentieth-century architecture or the improvisational riffs of an Ella Fitzgerald solo; concept formation is itself an imaginative act. Yet there is a difference between recalled images and their imaginative transformation. Were we limited to the recall of the images we had once experienced, cultural development would be in trouble. Imagination gives us images of the possible that provide a platform for seeing the actual, and by seeing the actual freshly, we can do something about creating what lies beyond it. Imagination, fed by the sensory features of experience, is expressed in the arts through the image. The image, the central term of imagination, is qualitative in character. We do indeed see in our mind’s eye.

THE ROLE OF THE ARTS IN REFINING THE SENSES AND ENLARGING THE IMAGINATION

The arts have an important role to play in refining our sensory system and cultivating our imaginative abilities. Indeed, the arts provide a kind of permission to pursue qualitative experience in a particularly focused way and to engage in the constructive exploration of what the imaginative process may engender. In this sense, the arts, in all their manifestations, are close in attitude to play. Constraints on the imagination are loosened. In the arts, in the West at least, permission is provided to explore, indeed to surrender, to the impulses the work sends to the maker, as well as those sent from the maker to the work. We see this perhaps most vividly when we watch preschoolers engaged in play. It is during this period that children take special pleasure in the sheer exploration of the sensory potential of the materials they use. It is at this time that their imaginative abilities, uninhibited by the constraints of culture, make it possible for them to convert a stick of wood into a plane they can fly, a sock into a doll they can cuddle, or an array of lines
drawn so they stand for daddy. For young children the sensory world is a source of satisfaction, and imagination a source of exploratory delight. And it is these inclinations toward satisfaction and exploration that enlightened educators and parents wish to sustain rather than to have dry up under the relentless impact of "serious" academic schooling. A culture populated by a people whose imagination is impoverished has a static future. In such a culture there will be little change because there will be little sense of possibility.

Imagination, that form of thinking that engenders images of the possible, also has a critically important cognitive function to perform aside from the creation of possible worlds. Imagination also enables us to try things out—again in the mind's eye—without the consequences we might encounter if we had to act upon them empirically. It provides a safety net for experiment and rehearsal.7

As for sensibility, the arts invite us to attend to the qualities of sound, sight, taste, and touch so that we experience them; what we are after in the arts is the ability to perceive things, not merely to recognize them.8 We are given permission to slow down perception, to look hard, to savor the qualities that we try, under normal conditions, to treat so efficiently that we hardly notice they are there.

Sensibility and imagination can, of course, remain entirely private affairs: we can enjoy the rosy radiance of dusk in private, the colored brilliance of a Cézanne still life in silence, the symmetrical strength of a Baule mask in quiet awe. The contents of our imaginative life can be kept to ourselves. Appreciation, though active, can be mute. Something else is needed if the products of our imagination are to make a social contribution to our culture. That something else is representation.

THE MEANING OF REPRESENTATION

Representation, like sensibility and imagination, also performs critically important cognitive functions. Consider the process through which it occurs.
Representation can be thought of, first, as aimed at transforming the contents of consciousness within the constraints and affordances of a material. Representation can and often does begin with an elusive and sometimes evanescent idea or image. I say evanescent because there is nothing quite so slippery as an idea; here now, gone a moment later. Images emerge and, like the subtle changes of the setting sun, may be altered irrevocably with a blink of the eye. Representation stabilizes the idea or image in a material and makes possible a dialogue with it. It is through "inscription" (I use the term metaphorically) that the image or idea is preserved—never, to be sure, in the exact form in which it was originally experienced, but in a durable form: a painting is made, a poem is written, a line is spoken, a musical score is composed.

It is through this very concreteness that representation makes possible a second, critically important process of editing. Although editing is usually associated with writing, it occurs in all art forms—painting and sculpture, music performance and music composition, theater, film and video, dance, and the rest. Editing is the process of working on inscriptions so they achieve the quality, the precision, and the power their creator desires. It is through the editing process that attention to the "wee bit" that Tolstoy believed defined art is conferred upon a work. It is in the process of editing that transitions are made graceful, colors harmonized, intensities modulated, and, indeed, seasoning to suit the palette adjusted.

In the domain of writing, editing allows us carefully to inspect the precision of language, the aptness of metaphor, the logic of argument. In painting it consists in brightening a passage of color. In music it involves shifting to the minor mode. In dance it is changing the pace of a movement. Editing is paying attention to relationships and attending to details; it is a process of making the work, work. Unless one is a genius, editing is a crucial aspect of the creative process, a way of removing the rough edges from one's work.

Inscription and editing are directly related to a third cognitive function of representation, one we usually take for granted: communication. The transformation of consciousness into a public form, which is what representation is designed to do, is a necessary condition for communication; few of us read minds. How this trans-
formation occurs, I believe, is taken much too much for granted. It is so natural a process that we hardly notice it. Yet we can ask, “How does speech, or an imagined image, or a melody we hear in our head get communicated? What must the maker do? And then what must the ‘reader’ do for it to make sense, that is, to be meaningful?”

What is clear is that culture depends upon these communications because communication patterns provide opportunities for members of a culture to grow. We develop, in part, by responding to the contributions of others, and in turn we provide others with material to which they respond. The relationship, at its best, is symbiotic. Thus the social contribution of the educational process is to make it possible for individuals to create symbiotic relationships with others through the development of their distinctive and complementary abilities and in so doing to enrich one another’s lives.

Inscribing, editing, and communicating are three cognitive processes used in the act of representation. As I have described them, each appears as if the process of representation occurred from the top down, that is, from idea or image, through the hand, into the material, and then into the head of an eager reader of text or image, sound, or movement. However, the process is not so linear. The process of representation is more of a conversation than it is like speaking into a tape recorder. The ideas and images are not so much blueprints for action detailing specific directions and destinations; they are more like embarkation points. Once into the sea, the ship rides the currents of the ocean, which also help set the course. In the process of working with the material, the work itself secures its own voice and helps set the direction. The maker is guided and, in fact, at times surrenders to the demands of the emerging forms. Opportunities in the process of working are encountered that were not envisioned when the work began, but that speak so eloquently about the promise of emerging possibilities that new options are pursued. Put succinctly, surprise, a fundamental reward of all creative work, is bestowed by the work on its maker.

Thus we can add to inscription, editing, and communication a fourth cognitive function of representation, the discovery of ends in process, which in turn generates surprise. Surprise is itself a source
of satisfaction. Familiarity and routine may provide security, but not much in the way of delight. Surprise is one of the rewards of work in the arts. In addition, it is from surprise that we are most likely to learn something. What is learned can then become a part of the individual’s repertoire, and once it is a part of that repertoire, new and more complex problems can be generated and successfully addressed. At the same time it must be acknowledged that it is quite possible to do something very well in a particular work and not know how to repeat it.

The process of representation is always mediated through some form. Some of these forms are carried by the meanings that language makes possible, including prosody, the cadences and melodies of the language itself. The way language is crafted, especially through its form and its connotative qualities, expresses emotions and adumbrates meanings that cannot be conveyed through literal denotation. But language, while a central and primary form of representation, is by no means the only form of representation. Forms that appeal to our sense of sight are also fundamental modes of communication and have been since humans inscribed images on the walls of the caves in Lascaux some seventeen thousand years ago. Sound in the form of music is also a means through which meanings are conveyed. Indeed, there is no sensory modality that humans have not used to express what imagination has generated. Forms of representation are means through which the contents of consciousness are made public. The process of making the contents of consciousness public is, as I indicated earlier, a way of discovering it, stabilizing it, editing it, and sharing it.

The selection of a form of representation is a choice having profound consequences for our mental life, because choices about which forms of representation will be used are also choices about which aspects of the world will be experienced. Why? Because people tend to seek what they are able to represent. If your camera is loaded with black-and-white film, you look for shadows, for light and dark, but if the same camera is loaded with color film, you seek color. What the film in your camera can do influences what you will do. If the only tool you have is a yardstick, you look for what you can measure. Put another way, the tools you work with
influence what you are likely to think about. Measuring tools lead to quantification; the tools used in the arts lead to qualification.

Consider the implications of the relationship between forms of representation for the selection of content in the school curriculum. Learning to use particular forms of representation is also learning to think and represent meaning in particular ways. How broad is the current distribution? What forms of representation are emphasized? In what forms are students expected to become "literate"? What modes of cognition are stimulated, practiced, and refined by the forms that are made available? Questions such as these direct our attention to the relationship of the content of school programs to the kinds of mental skills and modes of thinking that students have an opportunity to develop. In this sense, the school's curriculum can be considered a mind-altering device. And it should be.

Although we seldom think about the curriculum this way, parents send their children to school to have their minds made. In school, children learn how to think about the world in new ways. The culture provides the options in the various fields of study included, and various communities make the selections through choices reflected in graduation requirements, state education codes, college admission requirements, and the like. These selections are among the most significant policy decisions a community can make. Such decisions help influence how we think.

THE COGNITIVE FUNCTIONS OF THE ARTS

What are the cognitive functions performed by the arts? By the term cognition I mean to include all those processes through which the organism becomes aware of the environment or its own consciousness. It includes the most sophisticated forms of problem-solving imaginable through the loftiest flights of the imagination. Thinking, in any of its manifestations, is a cognitive event. The noncognitive pertains to forms of life of which we have no awareness. Blood flows through our veins, but typically we are not aware of the course it takes. Events occur about which we are unaware. This is not to say that factors about which we are unaware cannot
influence our behavior or attitudes; they can. But to the extent that we are unaware of them, those events are outside the realm of cognition.

With respect to art and its meaning, I share Dewey's view that art is a mode of human experience that in principle can be secured whenever an individual interacts with any aspect of the world. The arts are typically crafted to make aesthetic forms of experience possible. Works of art do not ensure that such experience will emerge, but they increase the probability that it will as long as those in their presence are inclined to experience such work with respect to their aesthetic features. The Parthenon and the Sistine ceiling can be ignored by someone in their presence; yet even a stone can be attended to so that its aesthetic character can serve as a source of that special form of life we call art.

One cognitive function the arts perform is to help us learn to notice the world. A Monet landscape or a Paul Strand photograph makes possible a new way of seeing; Monet's shimmering color gives us a new way to see light. Paul Strand's photographs provide a new way to experience the geometry of industrial cities. Art provides the conditions for awakening to the world around us. In this sense, the arts provide a way of knowing.

Aside from promoting our awareness of aspects of the world we had not experienced consciously before, the arts provide permission to engage the imagination as a means for exploring new possibilities. The arts liberate us from the literal; they enable us to step into the shoes of others and to experience vicariously what we have not experienced directly. Cultural development depends upon such capacities, and the arts play an extraordinarily important role in their contribution to such an aim.

Work in the arts also invites the development of a disposition to tolerate ambiguity, to explore what is uncertain, to exercise judgment free from prescriptive rules and procedures. In the arts, the locus of evaluation is internal, and the so-called subjective side of ourselves has an opportunity to be utilized. In a sense, work in the arts enables us to stop looking over our shoulder and to direct our attention inward to what we believe or feel. Such a disposition is at the root of the development of individual autonomy.
Another cognitive function of the arts is that in the process of creation they stabilize what would otherwise be evanescent. Ideas and images are very difficult to hold onto unless they are inscribed in a material that gives them at least a kind of semi-permanence. The arts, as vehicles through which such inscriptions occur, enable us to inspect more carefully our own ideas, whether those ideas emerge in the form of language, music, or vision. The works we create speak back to us, and we become in their presence a part of a conversation that enables us to “see what we have said.”

Finally, the arts are means of exploring our own interior landscape. When the arts genuinely move us, we discover what it is that we are capable of experiencing. In this sense, the arts help us discover the contours of our emotional selves. They provide resources for experiencing the range and varieties of our responsive capacities.

To discover the cognitive functions of other visual forms of representation, consider the use of maps. Why do we draw them? Why do we use them? Maps are drawn and used because they help us grasp relationships that would be harder to grasp, for example, in narrative or number. We use maps because they display, by a structural analogue, relationships in space that provide a useful image of the world we wish to navigate. Maps lay it out for us. So do histograms, charts, diagrams, and sketches. The inscription of visual images makes vivid certain relationships. They help us to notice and understand a particular environment and our place in it.

They also obscure. Thus the paradox: a way of seeing is also, and at the same time, a way of not seeing. Relationships that are made visible through maps also obscure what any particular map does not illuminate—the feel of a place, its look and color, what is idiosyncratic about it, its aroma, the lifestyles of the people who live there. Maps effectively simplify. We want them to, but we should not forget that the map is not the territory. The view they provide is always partial—as is any view. And precisely because any single view is partial, it is important, depending upon our purpose, to secure other views that provide other pictures.

I have been speaking of the cognitive functions of the arts largely in terms of the way they illuminate, that is, what they help
us see. But the arts go well beyond making visible the visible; they also tell us something about how places and relationships feel. They speak to us, as Susanne Langer said, through the emotions: “A work of art presents feeling (in the broad sense I mentioned before, as everything that can be felt) for our contemplation, making it visible or audible or in some way perceivable through a symbol, not inferable from a symptom. Artistic form is congruent with the dynamic forms of our direct sensuous, mental, and emotional life; works of art are projections of ‘felt life,’ as Henry James called it, into spatial, temporal, and poetic structures. They are images of feeling, that formulate it for our cognition.”

Through the arts we learn to see what we had not noticed, to feel what we had not felt, and to employ forms of thinking that are indigenous to the arts. These experiences are consequential, for through them we engage in a process through which the self is remade. What are the features of this transformational process? How does it proceed? What does it mean in the context of education?

THE ARTS AND PERSONAL TRANSFORMATION

Every task and each material with which we work both imposes constraints and provides opportunities for the development of mind. For example, if students are to develop their ability to think metaphorically, they need opportunities, examples, and encouragement to use metaphors in their speech and writing. The ability to think metaphorically is not the outcome of a single occasion; it requires repeated opportunities to explore the poetic use of language, a use of language that generates meaning through indirection, allusion, and innuendo. It is literalism that suppresses the almost natural tendency to use language poetically, as very young children often do. Similarly, if students are to learn to see and talk about visual qualities, they need occasions for such seeing and talking.

Seeing is an achievement, not merely a task. It is the result of making sense of a part of the world. Learning to see the qualities that constitute a visual field requires a mode of attention that is rarely employed in "ordinary" living. Most of our so-called seeing
is instrumental in nature. We see in order to recognize, and recognition, according to Dewey, is completed as soon as a label is attached to what we have seen. In such "seeing," seeing is aborted. It is stopped well before the qualities of the visual field are explored. When the qualities of the visual field are explored, the stage is set for their public articulation.

Developing a language with which to talk about visual qualities is an attitudinal as well as a linguistic achievement. To talk about qualities of a visual field—how, for example, colors and forms play off each other—often requires the use of simile and the invention of words—neologisms—that will, through innuendo more than through explicit language, convey the distinctive sense of the qualities perceived. Again, the skillful use of such language is the result of having developed both certain modes of thought and a receptive attitude toward their use. When teachers provide opportunities for students to engage in tasks that practice such skills and attitudes, they are providing opportunities for the development of mind. And when they organize the tasks students address so that students learn to connect what they have learned in their school to the world beyond it, they are developing their students' ability to extend and apply what they have learned to other domains, a process that in the psychological literature is referred to as transfer, an ability teachers are encouraged to foster.

The point here is that the kind of deliberately designed tasks students are offered in school help define the kind of thinking they will learn to do. The kind of thinking students learn to do will influence what they come to know and the kind of cognitive skills they acquire. As I said earlier, the curriculum is a mind-altering device. We design educational programs not merely to improve schools, but also to improve the ways in which students think. Each of the fields or disciplines that students encounter provides a framework, that is, a structure, schema, and theory, through which the world is experienced, organized, and understood. Each imposes different demands upon the student. Different fields, for example, require the use of different techniques and an understanding of the materials and ideas that will be used. In a sense, we get smart with a form of representation as we discover its limits and
possibilities, what it will do and what it won’t. Let me illustrate by describing the forms of thinking used in watercolor painting.

Watercolor is an unforgiving medium. By this I mean that watercolor does not tolerate indecisiveness well. Mistakes are hard to camouflage. Unlike oil painting, in which changes of mind can be covered up, in watercolor everything shows. The practical implications of this fact are significant. Timing is crucial. A sheet of watercolor paper that has been soaked with water in preparation for pigment dries at different rates depending on the amount of water it has received, the ambient temperature, and the amount of time that has elapsed since it was soaked. Since the amount of wetness the paper possesses affects the flow of pigment, knowing when to apply a brush charged with pigment is crucial. This form of knowing also requires one to know how much pigment is on the brush: too much for the amount of water on the paper will make the color puddle or bleed. How does one know how much pigment is on the brush? One way is to be aware of the weight of its tip, a very fine-grained assessment that experienced watercolorists possess.

Even when these skills have been mastered, the watercolorist needs to think strategically. Strategic thinking in watercolor painting means deciding what must be painted in what order. Because watercolors are transparent, dark colors will cover light colors or be altered by them. Thus, knowing when to leave white space on the paper and when to lay a colored wash on the paper is of critical importance if the work is to cohere visually. Here, too, timing and tempo matter.

But although timing is critical, it is essentially a technical achievement. The aesthetic aspects of the work must also be addressed. How forms relate to the artist’s intention, how colors interact, and how vitality is maintained so that the image is not dead on arrival are at the heart of the artistic enterprise. And because the “variables” are so numerous and complex and because there are no formulas to employ to guarantee a rightness of fit, an immersed engagement, one that commands all of one’s attention and intelligence is necessary. Indeed, regarding the demands upon intelligence in creating a work of art, John Dewey had this to say:
Any idea that ignores the necessary role of intelligence in the production of works of art is based upon identification of thinking with use of one special kind of material, verbal signs and words. To think effectively in terms of relations of qualities is as severe a demand upon thought as to think in terms of symbols, verbal and mathematical. Indeed, since words are easily manipulated in mechanical ways, the production of a work of genuine art probably demands more intelligence than does most of the so-called thinking that goes on among those who pride themselves on being intellectual. ¹⁷

What occurs as individuals become increasingly competent in watercolor painting is the development of intelligence in that domain. This development requires the ability to deal effectively with multiple demands simultaneously.¹⁸ And it is in learning to engage in that process that perception is refined, imagination stimulated, judgment fostered, and technical skills developed. Given the complexities of these demands it is ironic that the arts should be widely regarded as noncognitive.

Thus far we have talked about the role of the senses in concept formation, the function of the imagination in envisioning worlds we can create, and the process of representation through which inscription, editing, communication, and discovery take place. But how do forms of representation become meaningful? How do they come to express or refer? Let me describe three ways in which artists treat forms of representation so that they affect how meanings are conveyed.

THREE MODES OF TREATMENT

One mode of treatment is mimetic. By mimetic I refer to forms that look or sound like what they are intended to represent. For centuries artists struggled with the development of techniques through which to put (visual) "holes" in canvases; they were concerned with inventing ways to create the illusion of the third dimension, and in the West, around the fifteenth century, they began to find out how.¹⁹ In Western culture many children from about eight to
twelve years of age desire to learn how to create convincing illu-
sion. Artistic progress in their eyes is defined by the mimetic qual-
ity of their rendering. If an adult should suggest that they use their
imagination to draw an animal, the suggestion may be rejected as
a cop-out: they want their animal to look like a real animal!

Mimesis, however, need not achieve a high level of verisimilitude.
Consider signage designating men’s and women’s rest rooms.
Here the simplified structural features of male and female forms
are enough to designate. Indeed, in this situation a simplified
image is preferable: it communicates more easily than one that is
individualized through detail excessive for its function. What is
wanted is an image that is both general and specific enough to dif-
ferentiate men from women.

We find such forms used by young children. According to
Rudolf Arnheim, children create within the affordances of the ma-
terial with which they work the structural equivalences of the images
they wish to render.20 And because the drawings made by children
between four and eight are often didactic in aim—that is, children
of this age are often more interested in depicting a set of events or
a story than in mastering the ability to create verisimilitude—the
relevant criterion for them is whether their image is sufficient to
depict the story. This concern with the didactic or storytelling func-
tions of visual form often leads to the use of visual conventions
that stand for the subject they wish to represent. Thus, pictures of
houses with peaked roofs can be found in the drawings of children
who live in suburban neighborhoods in which there are no houses
with peaked roofs. Children acquire visual conventions to stand
for a house, or tree, or person, or sun, or bird. In fact many of these
conventions are widely shared by children in our culture. The
peaked-roof houses are also often drawn with windows having
curtains pulled to each side.

Mimesis is not the only way of representing images and con-
vveying meaning. The arts can depict not only what is seen or heard;
they can also depict what is felt. This brings us to a second mode
of treatment, the creation of expressive form.

The representation of feeling is achieved in many ways. Per-
haps the most important is the way in which visual form—line,
color, shape, value, texture, all aspects of form—is composed. Those working in music, dance, literature, poetry, and theater craft other qualities for expressive purposes. According to Gestalt theory, the forms that artists create generate fields of energy that are picked up by our nervous system, which in turn creates a resonance in the perceiver. Thus, fast and loud music produces a kind of experiential equivalent in the listener; slow and soft music creates a quite different resonance and hence a different experience. By manipulating form, artists manipulate experience.

But if all responses could be explained by the formal relations among the composed qualities of the artwork, everyone's response to the same visual form would be essentially alike. Clearly, it isn't. Culture and personal experience interact. The meaning secured from a work depends not only on the features of the work but also on what the individual brings to it. Different backgrounds lead to different experiences of the same work. A painting of Jesus for a practicing Catholic takes on a meaning different from that for an agnostic. A person who has long collected nonobjective painting and who understands its place in the history of art is likely to experience a painting by Willem de Kooning quite differently from someone who has never heard of Abstract Expressionism.

Nevertheless, the primary point should not be lost: the way forms are treated by the artist—or by the child—has a great deal to do with what the work expresses. And it is the possession of a fertile imagination and an array of technical skills that enable artists to shape forms that influence how we feel in their presence.

The crafting of expressive form does not preclude the presence of mimetic forms. On the contrary, Nonobjective art is a comparatively recent arrival on the artistic landscape. The religious paintings made in Europe in the thirteenth century secure their tranquility from the way the monks who painted them treated form. That treatment is found in the way figures are depicted as well as in the way the entire composition is organized. Again, young children can create similar effects, more often through accident than through the intentional and the reflective control of the material. Yet their paintings and drawings also evoke emotion through the way forms are rendered. In fact, all forms possess what are called
physiognomic properties. That is, all forms possess qualities that express or evoke feeling or emotion. In the arts the expressive character of forms is brought under the intelligent control of experience and technique. Artists, by virtue of their experience and technical skills, are able to compose form in the service of feeling. Thus, artistry requires, in part, the ability to conceive of the emotional quality desired and the technical ability to compose form capable of evoking the feeling or emotion desired.

A third mode of treatment occurs through the use of conventional signs. Conventional signs are socially agreed-upon symbols that refer to ideas, objects, or events and the like. A flag made up of fifty white stars on a blue field and thirteen red and white stripes is likely to refer in certain contexts to the United States of America: a cross and a six-sided star in certain contexts refer by social agreement to two different religions.

You will notice that I restricted the meaning of these conventional signs with the qualifier "in certain contexts." The qualification is necessary because meaning is always influenced by the particular context in which a work appears. The American flag can mean one thing on the grave of a dead soldier and quite another on the floor of an art museum. In fact artists frequently place familiar conventional signs in unusual contexts to awaken us from our customary modes of perception. These contexts evoke meanings that depend on "the shock of the new." Perhaps some of the most vivid examples of visual recontextualization are to be found in Surrealism and some kinds of Pop Art.

The study of conventional signs in the arts is the focus of a field called iconology. Iconologists study symbols that do not necessarily look like what they refer to or represent but that nevertheless refer to them: the golden fleece, the mirror, the cross, the key, the lantern all have iconographic meaning. A viewer would need to understand the significance of these signs and symbols in order to secure a "full reading" of the picture.

What we find in looking at art is that artists often employ all three modes of treatment in the same work. And so too do children. The ability to create images in which nimesis, expressiveness, and conventional signs convey the creator's aims is a sub-
stantial cognitive accomplishment. It requires a repertoire of technical skills, a sensitivity to relationships among the forms, and the ability to use appropriate conventional signs. The kind of thinking required to create such images cannot be conducted by appeals to algorithms, formulas, or recipes. And even when the schema for the creation of forms is familiar, there is always significant uniqueness in the particular configuration, so that the formulaic use of such a schema is unlikely to achieve a satisfying aesthetic resolution. Somatic knowledge must be employed.22

Somatic knowledge, what is sometimes called embodied knowledge, is experienced in different locations. Some images resonate with our gut, others with our eyes, still others with our fantasies; artists play with our imagination. Some visual images are essentially tactile experiences. Works of art can call upon both the ideational and any of the sensory resources we use to experience the world; the fact that an image is visual does not mean that the experience we have of it will be visual. All of us have synesthetic experiences. In a sense all these capacities for human experience are resources the artist can call upon in the crafting of the image. In the hands and mind of the artist they are avenues for communication.

THE ARTS AND TRANSFORMING CONSCIOUSNESS

So how do the arts affect consciousness?23 They do so in a number of ways. They refine our senses so that our ability to experience the world is made more complex and subtle; they promote the use of our imaginative capacities so that we can envision what we cannot actually see, taste, touch, hear, and smell; they provide models through which we can experience the world in new ways; and they provide the materials and occasions for learning to grapple with problems that depend on arts-related forms of thinking. They also celebrate the consummatory, noninstrumental aspects of human experience and provide the means through which meanings that are ineffable, but feelingful, can be expressed.

Before we move on, let me recount the argument I have advanced so far. In distilled form it is as follows:
1. Humans are sentient creatures born into a qualitative environment in and through which they live.

The ability to experience the full range of qualities that constitute the empirical environment is directly related to the functions of our sensory system. We are biologically designed to be sensitive to the array of qualities that constitute that environment. Our ability to see depends upon the capacities of sight, hearing, touch, and the like. If we were congenitally deaf or blind, we would lack the ability to experience the auditory or visual aspects of the world.

But of course the activation of our sensory system also depends upon our being in an environment that possesses the qualities to which our senses are responsive. When, for example, visual stimulation is unavailable, our visual experience is also absent, and indeed the development of our visual system may be irrecoverably undermined. Kittens whose eyes have been occluded during the first few months of life lose their capacity to see when the occlusions are removed. The actualization of capacity, that is, its transformation from capacity to ability, depends on both what the individual brings to the environment and what the environment brings to the individual. During the course of human development there are certain critical periods during which stimulation and nurture of sensory capacities are crucial.

2. The sensory system is the primary resource through which the qualitative environment is experienced.

Observations of infants and preschoolers provide compelling evidence of their need to experience and understand the world by exploring its qualities. Almost everything they encounter is not only touched, but when possible tasted, listened to, explored through as many sensory channels as lend themselves to knowledge of its qualitative features. Getting to know the world for the preschool child means, in large measure, getting to know how it can be experienced through all the sensory modalities.

3. As children mature, their ability to experience qualities in the environment becomes increasingly differentiated.

The child's initial experience with the qualitative world in and through which she lives is not a form of experience that is automatically given to the child. In a very significant sense, what the
child learns about the world is influenced by the way in which she explores its features. This exploration leads to the construction of distinctions among the qualities encountered: there are varieties of sweetness, varieties of puppies, varieties of hardness, varieties of sound. A child learns over time to differentiate among qualities, to recognize her mother’s face, for example, among all the faces the child can see. Differentiation is a way of recognizing what is familiar, categorizing qualities, and anticipating the consequences of action upon those qualities. One of the potentially large lessons of work in the arts is the contribution good arts teaching makes to the child’s ability to perceive subtleties and to recognize complexities among the qualitative relationships encountered in the phenomenal world.

4. Differentiation enables children to form concepts. Concepts are images formed in one or more sensory modalities that serve as proxies for a class of associated qualities.

The formulation of concepts is, in a sense, a data-reduction process of distilling the essential features of an array of qualities so that they stand for a larger class of phenomena. Distinguishing between dogs and cats requires the ability to notice differences between them. The concept “dog” and the concept “cat” are qualitative abstractions of those essential differentiating features, and over time children learn to make those distinctions and to give them a name. Put another way, concept formation is an imaginative activity in which images in one or more sensory modalities are formed that stand for an array of qualities associated with a signifier.

The symbol of the Red Cross, given the particular proportions of its shape, stands as a signifier for a class of meanings related to services provided to those in need of medical care. For such a signifier to be meaningful, the individual must have some conception of the meaning of medical care. Meanings are nested into levels of abstraction, but are reducible to a proxy. This proxy can be visual, as in the case of the Red Cross; it can be auditory, as in the case of “God Save the Queen”; it can be linguistic, as in the meanings associated with the phrase “The Constitution of the United States.”

5. Concepts and the meanings they acquire can be represented in any material or symbolic system that can be used as a proxy for it.
Our conceptual life operates in each of the sensory modalities and in their combination. We not only can generate in the mind's eye a visual image; we can see that image even while hearing music "around" it. We can taste a banana without actually tasting it. We can envision an opera without actually seeing or hearing it. Our capacity to envision is transformed by the effort to represent what we have experienced. Representation can be pursued in any material or form that can be crafted; thus, the same theme can be danced, painted, or described literally or poetically. In a metaphorical sense, becoming multiliterate means being able to inscribe or decode meaning in different forms of representation.

6. The child's developing ability to differentiate, to form concepts, and to represent those concepts reflects the use and growth of mind.

Our conceptual life takes on a public form when the images distilled and formed as concepts are "embodied" in some form of representation. As intelligence is promoted in the representation process and as individuals become increasingly imaginative and technically competent at transforming concepts and their associated meanings into forms, the use and the growth of mind are revealed.

Intelligence, in a sense, has to do with the competence or skill with which we conduct some activity. The character of that activity, particularly as it is revealed over time, is a marker on the road toward cognitive development. Thus we can see in children's drawings, in their musical performances, in their ability to write poetry, in their sensitivity in the area of dance, the mind being practiced and its growth made manifest in a public form.

7. Which aspects of the environment will be attended to, the purposes for which such attention is used, and the material the child employs to represent it influence the kind of cognitive abilities the child is likely to develop. More broadly, the child's mind is shaped by the culture of which the foregoing conditions are a part.

The human mind is a kind of cultural invention. To be sure children come into the world well wired, but how they develop, which aptitudes are cultivated and which are left to atrophy, what modes of thinking they become good at are all influenced by the
the emotional tone of what we pay attention to. We speed up perception to get on with our work. One of the large lessons the arts teach is how to secure the feelingful experience that slowed perception makes possible; the arts help students learn how to savor qualities by taking the time to really look so that they can see.

16. A major aim of arts education is to promote the child's ability to develop his or her mind through the experience that the creation or perception of expressive form makes possible. In this activity sensibilities are refined, distinctions are made more subtle, the imagination is stimulated, and skills are developed to give form feeling.

The phrase "the child's ability to develop his or her mind" is intended to reemphasize the point that education is a process of learning how to become the architect of your own experience and therefore learning how to create yourself. The arts have distinctive contributions to make to that end through their emphasis on the expression of individuality and through the exercise and development of the imaginative capacities.

We now turn to alternative visions of arts education.
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We now turn to alternative visions of arts education.
CRITICAL EVIDENCE

How the ARTS Benefit Student Achievement
RTS IN THE SPOTLIGHT

Positive signs of support for the arts in education are visible everywhere. Consider these recent developments:

- In the federal No Child Left Behind Act, also known as NCLB, the arts share equal billing with reading, math, science, and other disciplines as "core academic subjects," which can contribute to improved student learning outcomes. 1

- Forty-nine states have established content and/or performance standards that outline what students should know and be able to do in one or more art forms; 43 states require schools or districts to provide arts instruction. 2

- Schools integrating the arts into the curriculum as part of a comprehensive education reform strategy are documenting positive changes in the school environment and improved student performance. 3

- The American public, by an overwhelming margin, believes the arts are vital to a well-rounded education; more than half rate the importance of arts education a "ten" on a scale of one to ten. 4

As a nation, we are close to reaching a collective understanding that all students benefit from the opportunity to learn about and experience the arts. Study of the arts in its many forms—whether as a stand-alone subject or integrated into the school curriculum—is increasingly accepted as an essential part of achieving success in school, work and life.

Yet, at the same time we celebrate the arts for the value they add to learning and to life, study of the arts is quietly disappearing from our schools. In schools across the country, opportunities for students to participate in high-quality arts instruction and activities are diminishing, the result of shifting priorities and budget cuts. Poor, inner-city and rural schools bear a disproportionate share of the losses. Studies show children from low-income families are less likely to be consistently involved in arts activities or instruction than children from high-income families. 5

Put simply, our rhetoric is out of sync with the reality. Why is it so important to keep the arts strong in our schools? How does study of the arts contribute to student achievement and success?
About this Publication

Why is it so important to keep the arts strong in our schools? How does study of the arts contribute to student achievement and success?

*Critical Evidence: How the Arts Benefit Student Achievement* is designed to answer these and other questions. It describes in nontechnical terms what the research says about how study of the arts contributes to academic achievement and student success. It offers impartial, to-the-point reporting of the multiple benefits associated with students' learning experiences in the arts. In short, it "makes the case for the arts" based on sound educational research.

A primary source for most of the studies cited here is *Critical Links: Learning in the Arts and Student Academic and Social Development.* The Arts Education Partnership (AEP), with financial support from the U.S. Department of Education and the National Endowment for the Arts, commissioned and published *Critical Links* in 2002 to capture the best work being done at the time on the academic and social effects of arts learning experiences. The 62 peer-reviewed studies included in the compendium were identified as strong arts education research that would "make a contribution to the national debate" about effective strategies to improve student achievement and school environments.

The National Assembly of State Arts Agencies (NASAA) and the AEP commissioned *Critical Evidence: How the Arts Benefit Student Achievement* in response to the needs of arts professionals and nonprofessionals alike for accurate and concise information that reflects the current state of knowledge about arts learning and student achievement. This new publication serves as an update to *Eloquent Evidence: Arts at the Core of Learning,* which was published by NASAA, in collaboration with the AEP, the National Endowment for the Arts and the President's Committee on the Arts and the Humanities in October 1995. Ten years after its release, the evidence is even more eloquent, and the need to demonstrate the link between the arts and student achievement has grown more critical.
ARTS EDUCATION in the BIG PICTURE

To a large extent, changes in the national education policy environment over the last decade have shaped the landscape for arts learning in the schools today. When *Eloquent Evidence* was published in 1995, *Arts at the Core of Learning* provided an exceptionally apt subtitle. A year earlier, Congress had enacted the Goals 2000: *Educate America* Act, which identified the arts for the first time in federal policy as a part of the core curriculum. This public acknowledgement of the arts as “core” to education was a meaningful step. In one sense, it came to symbolize what *Eloquent Evidence* later described as “a growing consensus among policy makers and parents that the arts should be an integral part of education.”

The federal government through the U.S. Department of Education and the National Endowment for the Arts has maintained a consistent connection with arts education in the public schools over the last 10 years. This has occurred in part through targeted funding for programs—often involving partnerships between schools and community organizations; professional development for teachers and teaching artists; and research and evaluation. The two agencies have cooperated as well in the data collection efforts of the National Center for Education Statistics, which provide important insights into the status and condition of arts education in the country.

The No Child Left Behind Act of 2001 (NCLB) is arguably the most significant federal action to affect arts education, and education generally, in the last decade—if not the last 40 years. This legislation, as with the Goals 2000 law, is an update of the basic federal education law originally enacted in 1965. No Child Left Behind was signed into law in January 2002. It expanded the federal role in education in order “to close the achievement gap between disadvantaged and minority students and their peers.”
To comply with the law, states have developed plans to increase student achievement and have set performance goals, which all students are expected to meet by 2013-14 in reading and mathematics. In almost every section of the law, NCLB stresses that decisions about the allocation of federal resources for education should be grounded in "scientifically-based research." The intent, as interpreted by the Department of Education, is to "transform education into an evidence-based field."

**What Does THE PUBLIC Think about Arts Education?**

SOURCE: "New Harris Poll Reveals That 93% of Americans Believe That the Arts Are Vital to Providing a Well-Rounded Education," www.artsusa.org.
A May 2005 Harris Poll on the attitudes of Americans toward arts education, commissioned by Americans for the Arts, revealed strong public support. Among the findings:

93% agree the arts are vital to providing a well-rounded education for children, a 2% increase over 2001.

86 agree an arts education encourages and assists in the improvement of a child’s attitudes toward school.

83% believe that arts education helps teach children to communicate effectively with adults and peers.

79% agree incorporating the arts into education is the first step in adding back what’s missing in public education today.

54% rated the importance of arts education a “ten” on a scale of one to ten.

79% believe that it’s important enough for them to get personally involved in increasing the amount and quality of arts education.
No Child Left Behind reaffirms the arts as a "core academic subject" that all schools should teach. It puts the arts on equal footing with the other designated core subjects: English, reading or language arts, mathematics, science, foreign languages, civics and government, economics, history and geography. And it paves the way for the arts to be recognized both as a serious subject in its own right and as a part of a proven strategy to improve student performance in the other core subjects.

With its many challenges and opportunities, NCLB dominates the state and local education landscape today. What the long-term effects of NCLB will be on funding and support for arts education in the schools remain unclear. So far, the results have been mixed. Schools in some states report the amount of instructional time devoted to reading, writing, math and science has increased, while for the arts it has declined. In other states, NCLB has served as a catalyst for strengthening efforts to raise student achievement and improve school environments through integration of the arts.
What Is the
NO CHILD LEFT
BEHIND ACT?

The No Child Left Behind Act of 2001, as described by the U.S. Department of Education, is "the most sweeping reform of the Elementary and Secondary Education Act since it was enacted in 1965." With strong bipartisan support from Congress, President George W. Bush signed NCLB into law on January 8, 2002.

At over 1,000 pages of legislation, it is no surprise most Americans are still in the dark about the specifics of NCLB. In 2004, more than two years after it became law, two-thirds of Americans surveyed reported they knew "very little" or "nothing at all" about NCLB, according to a Phi Delta Kappa/Gallup Poll. On average, parents of public school children were slightly better informed and, as a whole, had substantially increased their level of knowledge about the law from the previous year. In 2004, 62% of parents said they knew "very little" or "nothing at all" about NCLB, compared to 78% in 2003.

As outlined by the U.S. Department of Education, NCLB is based on four guiding principles or "pillars":

• Stronger Accountability for Results
• More Freedom for States and Communities
• Encouraging Proven Education Methods
• More Choices for Parents

A primary objective of NCLB is to close achievement gaps between students by bringing all students, regardless of race, ethnicity, gender or income to the "proficient" level on state standardized tests by the 2013-14 school year.

How Study of the Arts Contributes to Student Achievement & Success

A growing body of studies, including those in the research compendium Critical Links, presents compelling evidence connecting student learning in the arts to a wide spectrum of academic and social benefits. These studies document the habits of mind, social competencies and personal dispositions inherent to arts learning. Additionally, research has shown that what students learn in the arts may help them to master other subjects, such as reading, math or social studies.

Students who participate in arts learning experiences often improve their achievement in other realms of learning and life. In a well-documented national study using a federal database of over 25,000 middle and high school students, researchers from the University of California at Los Angeles found students with high arts involvement performed better on standardized achievement tests than students with low arts involvement. Moreover, the high arts-involved students also watched fewer hours of TV, participated in more community service and reported less boredom in school.¹²

The concept of transfer, in which "learning in one context assists learning in a different context," has intrigued cognitive scientists and education researchers for more than a century.¹³ A commonly held view is that all learning experiences involve some degree of transfer both in life and learning outside the school as well as learning within the school. However, the nature and extent of these transfers remain a topic of great research interest. Recent studies suggest the effects of transfer may in fact accrue over time and reveal themselves in multiple ways.

Researchers continue to explore the complex processes involved in learning and the acquisition of knowledge and skills. One promising line of inquiry focuses on how to measure the full range of benefits associated with arts learning. These include efforts to develop a reliable means to assess some of the subtler effects of arts learning that standardized tests fail to capture, such as the motivation to achieve or the ability to think critically.
The SAT and Arts Learning

The relationship between arts learning and the SAT is of considerable interest to anyone concerned with college readiness and admissions issues. The SAT Reasoning Test (formerly known as the SAT I) is the most widely used test offered by the College Board as part of its SAT Program. It assesses students' verbal and math skills and knowledge and is described as a "standardized measure of college readiness."

Many public colleges and universities use SAT scores in admissions. Nearly half of the nation's three million high school graduates in 2005 took the SAT.

Multiple independent studies have shown increased years of enrollment in arts courses are positively correlated with higher SAT verbal and math scores. High school students who take arts classes have higher math and verbal SAT scores than students who take no arts classes.

Arts participation and SAT scores co-vary—that is, they tend to increase linearly: the more arts classes, the higher the scores. This relationship is illustrated in the 2005 results shown below. Notably, students who took four years of arts coursework outperformed their peers who had one half-year or less of arts coursework by 58 points on the verbal portion and 38 points on the math portion of the SAT.

Arts Course-taking Patterns and SAT Scores, 2005

<table>
<thead>
<tr>
<th></th>
<th>VERBAL</th>
<th>MATH</th>
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</thead>
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<tr>
<td>4+ years arts</td>
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<tr>
<td>1/2 year or less</td>
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<td>Average for All SAT Test Takers</td>
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The ABCs of ARTS LEARNING

The research compendium Critical Links contains a diverse collection of studies that examine how arts learning experiences affect the academic achievement and social development of children and youth. It includes summaries of studies conducted in five major art form areas: dance, drama, visual arts, music and multi-arts. As the title implies, the research provides critical evidence linking study of the arts with student achievement and success.

More than 65 distinct relationships between the arts and academic and social outcomes are documented. They include such associations as: visual arts instruction and reading readiness; dramatic enactment and conflict resolution skills; traditional dance and nonverbal reasoning; and learning piano and mathematics proficiency.

Based on these findings, the compendium has identified six major types of benefits associated with study of the arts and student achievement:

1. READING AND LANGUAGE SKILLS
2. MATHEMATICS SKILLS
3. THINKING SKILLS
4. SOCIAL SKILLS
5. MOTIVATION TO LEARN
6. POSITIVE SCHOOL ENVIRONMENT

One convenient way to sum up how study of the arts benefits student achievement is the recognition that learning in the arts is academic, basic and comprehensive. It is as simple as A-B-C.
The ABCs of Arts Learning

The benefits of student learning experiences in the arts are:

I. Academic
   - Reading and Language Skills
   - Mathematics Skills

II. Basic
   - Thinking Skills
   - Social Skills
   - Motivation to Learn

III. Comprehensive
   - Positive School Environment

I. Learning in the Arts Is Academic

Learning experiences in the arts contribute to the development of academic skills, including the areas of reading and language development, and mathematics. One method for assessing these outcomes is standardized exams, sometimes referred to as "paper and pencil" tests. While not always deemed the best measure, standardized test results provide arts education researchers with an important data source for conducting studies related to student achievement. Studies in Critical Links use various measures of achievement, including the impact shown on such tests.

READING AND LANGUAGE SKILLS

Certain forms of arts instruction enhance and complement basic reading skills, language development and writing skills. For example, dance has been employed to develop reading readiness in very young children, and the study of music has provided a context for teaching language skills.

Literacy is a term that refers to the ability to read and write. A constellation of processes is involved in the development of literacy skills. Children learning to read and write must be able to associate letters, words and phrases with sounds, sentences and meanings.
The relationship between drama and the development of literacy skills among young children is well documented. The following examples illustrate how the use of dramatic enactment can make a measurable difference in helping students reach such important curricular goals as story understanding, reading comprehension and topical writing skills:

- One of the most common approaches to teaching reading is to have a teacher read a story to students. The use of drama in the classroom can provide a beneficial supplemental approach. A recent study found that the development of literacy skills among pre-kindergarteners was fostered when the children were allowed to act out their favorite stories. Dramatic play also helped motivate them to learn.15

- When students had an opportunity to engage in a dramatic enactment of a story, their overall understanding of the story improved. Researchers in this study found that story comprehension effects were greatest for first graders who were reading below grade level.16

- Drama can also be an effective method to develop and improve the quality of children's narrative writing. As a "warm-up" writing exercise, second and third grade students used poetry, games, movement and improvisation to act out their story ideas, which contributed to their improved performance.17

MATHEMATICS SKILLS

Certain types of music instruction help develop the capacity for spatial-temporal reasoning, which is integral to the acquisition of important mathematics skills. Spatial temporal reasoning refers to the ability to understand the relationship of ideas and objects in space and time.

The association between music and mathematics achievement is an area of great research interest. A recent literature review turned up over 4,000 published and unpublished references on this topic alone. Among the strong body of evidence linking student involvement in music to high school math proficiency are these two large-scale studies:

- An analysis conducted of multiple studies confirms the finding that students who take music classes in high school are more likely to score higher on standardized mathematics tests such as the SAT. One explanation is musical training in rhythm emphasizes proportion, patterns and ratios expressed as mathematical relations.18
Students consistently involved in orchestra or band during their middle and high school years performed better in math at grade 12. The results were even more pronounced when comparing students from low-income families. Those who were involved in orchestra or band were more than twice as likely to perform at the highest levels in math as their peers who were not involved in music.¹⁹

II. Learning in the Arts Is Basic

Arts learning experiences contribute to the development of certain thinking, social and motivational skills that are considered basic for success in school, work and life. These fundamental skills encompass a wide range of more subtle, general capacities of the mind, self-perceptions and social relationships.

THINKING SKILLS

Thinking skills (sometimes referred to as cognitive skills) is a broad term that refers to the operation of various thought processes. Reasoning ability, intuition, perception, imagination, inventiveness, creativity, problem-solving skills and expression are among the thought processes associated with study of the arts.

The relationship between music and spatial-temporal reasoning as it pertains to mathematics skills was discussed earlier. Participation in other arts forms, such as dance or visual arts, also lends itself to the development of thinking skills, as evidenced in these examples, which also ask the question whether such skills transfer to other subjects:

• In an experimental research study of high school age students, those who studied dance scored higher than nondancers on measures of creative thinking, especially in the categories of fluency, originality and abstract thought. Whether dancers can use their original abstract thinking skills in other disciplines is an important area of exploration.²⁰

• A group of 162 children, ages 9 and 10, were trained to look closely at works of art and reason about what they saw. The results showed that children's ability to draw inferences about artwork transferred to their reasoning about images in science. In both cases, the critical skill is that of looking closely and reasoning about what is seen.²¹
SOCIAL SKILLS

Certain arts activities promote growth in positive social skills, including self-confidence, self-control, conflict resolution, collaboration, empathy and social tolerance. Research evidence demonstrates these benefits apply to all students, not just the gifted and talented. As the studies described below demonstrate, however, the arts can play a key role in developing social competencies among educationally or economically disadvantaged youth, who are at greatest risk of not successfully completing their education:

- A group of boys, ages 8 to 19, living in residential homes and juvenile detention centers for at-risk youth, discovered that learning to play guitar and performing for their peers boosted their confidence and self-esteem. The research suggests the opportunity to perform may be a powerful tool to help youth overcome fears and see that they can succeed.22
- Dance also can affect the way juvenile offenders and other disenfranchised youth feel about themselves. One study demonstrated that when a group of 60 such adolescents, ages 13 to 17, participated in jazz and hip hop dance classes twice weekly for 10 weeks, they reported significant gains in confidence, tolerance and persistence related to the dance experience.23

MOTIVATION TO LEARN

The arts nurture a motivation to learn by emphasizing active engagement, disciplined and sustained attention, persistence and risk taking, among other competencies. Participation in the arts also is an important strategy for engaging and motivating students at risk of dropping out of high school and for those with special needs, as these studies show:

- Students at risk of not successfully completing their high school educations cite their participation in the arts as reasons for staying in school. Factors related to the arts that positively affected the motivation of these students included a supportive environment that promotes constructive acceptance of criticism and one where it is safe to take risks.24
- An ethnographic study of seventh grade boys in special education revealed use of the visual arts helped them become more sophisticated, less reluctant readers. Described as learning disabled, the boys were encouraged to use visual forms of expression to convey their understanding of reading assignments. After a nine-week course of "visualization training," they also took a more active role in reading and began to interpret text rather than passively reading it.25
III. Learning in the Arts
Is Comprehensive

Learning in the arts is comprehensive in the true sense of the word: All three common definitions are applicable. Integration of the arts as a critical component of the school curriculum affords students a complete and well-rounded education. The benefits associated with study of the arts are inclusive of all students, although they can be greatest for those who are educationally or economically disadvantaged. And, an arts-rich learning environment can have far-reaching effects that extend to the entire school and surrounding community.

POSITIVE SCHOOL ENVIRONMENT

The arts help create the kind of learning environment conducive to teacher and student success by fostering teacher innovation, a positive professional culture, community engagement, increased student attendance, effective instructional practice and school identity. A glimpse of the benefits is provided below, which is based on extensive evaluations of two well-established and highly regarded programs:

- The Chicago Arts Partnerships in Education (CAPE) public schools brought local artists and teachers into partnerships so that they could develop curricular units in which an art form was integrated with an academic subject. In a comparative study with other Chicago public elementary schools, students from the CAPE schools performed better on standardized tests than the students who attended schools that did not integrate the arts with academics.26

- The A+ Schools Program in North Carolina is a comprehensive education reform initiative that integrates the arts. An analysis of its many beneficial effects goes beyond assessment of student outcomes to focus also on teaching and learning processes. The program ranks high on measures of increased teacher collaboration and enhanced partnerships with parents and the community.27
The evidence is clear: study of the arts contributes to student achievement and success. Its multiple benefits are academic, basic and comprehensive. What is less clear is how to ensure that all students have the opportunity to learn about and experience the arts in school. Despite convincing research and strong public support, the arts remain on the margins of education, often the last to be added and the first to be dropped in times of strained budgets and shifting priorities.

Action is needed to place the arts front and center on education agendas in both the statehouse and the schoolhouse. And in the current education policy climate, evidence-based action and advocacy are needed to make a compelling case for why the arts matter for all students at all levels of education.

The use of evidence-based research to communicate the benefits of arts education is part of a powerful strategy to keep the arts strong in our nation's schools. Research doesn't hold all the answers to why the arts are important, but it does confirm what most people already know to be true in their hearts and minds: The arts make a significant contribution to helping all students achieve success in school, work and life.
ENDNOTES


2 Education Commission of the States (2005), State Policies Regarding Arts in Education. Denver, CO: ECS.


14 Deasy, Richard J., "Don't Axe the Arts!" National Association of Elementary School Principals, Volume 82, Number 3 (January/February 2003).


17 Moore, Blaine H. and Helen Caldwell (2002), "Drama and Drawing for Narrative Writing in Primary Grades." In R. Deasy (Ed.), Critical Links: Learning in the Arts and Student Achievement and Social Development, Washington, DC: AEP.


19 Catterall, James S., Richard Chapleau, and John Iwanaga (2002), "Involvement in the Arts and Human Development: Extending an Analysis of General Associations and Introducing the Special Cases of Intensive Involvement in Music and Theatre Arts." In R. Deasy (Ed.), Critical Links: Learning in the Arts and Student Achievement and Social Development, Washington, DC: AEP.


Where to LEARN MORE

The NATIONAL ASSEMBLY OF STATE ARTS AGENCIES (NASAA) is the membership organization that unites, represents and serves the nation's state and jurisdictional arts agencies. NASAA's mission is to advance and promote a meaningful role for the arts in the lives of individuals, families and communities throughout the United States.

1029 Vermont Avenue, NW, 2nd Floor
Washington, DC 20005
Tel: 202-347-6352
Fax: 202-737-0526
E-mail: nasaa@nasaa-arts.org
URL: www.nasaa-arts.org

The ARTS EDUCATION PARTNERSHIP (AEP), established in 1994, is a national coalition of over 100 arts, education, business, philanthropic and government organizations that support the essential role of the arts in student learning and school improvement. AEP is administered by the Council of Chief State School Officers and the National Assembly of State Arts Agencies, through a cooperative agreement with the National Endowment for the Arts and the U.S. Department of Education.

One Massachusetts Avenue, NW, Suite 700
Washington, DC 20001-1431
Tel: 202-326-8693 (Information Line)
Fax 202-408-8081
E-mail: aep@ccsso.org
URL: www.aep-arts.org
Published by the National Assembly of State Arts Agencies in collaboration with the Arts Education Partnership

Additional support provided by MetLife Foundation

The work of the National Assembly of State Arts Agencies and the Arts Education Partnership is supported and strengthened in many ways through funding and programming partnerships with the National Endowment for the Arts.

How the ARTS Benefit Student Achievement

Written by Sandra S. Ruppert

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ARTS EDUCATION

CREATING STUDENT SUCCESS
IN SCHOOL, WORK, AND LIFE

A child’s education is not complete unless it includes the arts. In fact, the No Child Left Behind Act (NCLB) lists the arts among the core academic subjects, requiring schools to enable all students to achieve in the arts and to reap the full benefits of a comprehensive arts education.

In spite of this federal direction, access to arts education in our schools is eroding. A report from the Center for Education Policy concludes that, since the enactment of NCLB, instructional time for art and music has been reduced by 22 percent. This at a time when parents, employers, and civic leaders are demanding improvements to the learning environment that will make our schools places where all learners will access a complete education and opportunities to succeed. These demands cannot be met without comprehensive arts education in our nation’s schools.

The Arts Strengthen the Learning Environment
Where schools and communities are delivering high-quality learning opportunities in, through, and about the arts for children, extraordinary results occur. A recent study by the Arts Education Partnership, Third Space: When Learning Matters, finds that schools with large populations of students in economic poverty – too often places of frustration and failure for both students and teachers – can be transformed into vibrant hubs of learning when the arts are infused into their culture and curriculum.

The Arts Can Prepare and Retain High Quality Teachers Who Love to Teach
The recruitment and retention of our best teachers is a daunting challenge. It can be met, however, by ensuring schools embrace the arts. Schools, especially those struggling, retain their best teachers by becoming artistic havens; places where students want to learn and teachers want to teach. As we aim to improve teacher quality, the arts can help us train and retain our best future and current educators in all subjects, not simply the arts.

The Arts Prepare Students for School, Work, and Life
As this country works to strengthen our foothold in the global economy, the arts equip students with a creative, competitive edge. To succeed in today’s economy of ideas, students must masterfully use words, images, sounds, and motion to communicate. The arts provide the skills and knowledge students need to develop the creativity and determination necessary for success in today’s global information age.

A comprehensive strategy for a complete education includes high-quality, sequential arts instruction in the classroom, as well as participation and learning in available community-based arts programs. Public schools have the responsibility for providing a complete education for all children, meeting the commitment put forth in NCLB. The federal commitment to arts education must be strengthened so that the arts are implemented as a part of the core curriculum of our nation’s schools and are an integral part of every child’s development.
ACHIEVEMENT IN AND THROUGH THE ARTS

Position: The Arts Help Close the Achievement Gap.

Argument: The arts make a tremendous impact on the developmental growth of every child, leveling the "learning field" across socio-economic boundaries. The arts reach students not otherwise engaged, uniquely bridging the broad spectrum of learning styles. Low achieving students often become high achievers in arts learning settings. Students who participate in the arts outperform those who do not on virtually every measure. Researchers found that sustained learning in music and theater correlate to greater success in math and reading, with students from lower socioeconomic backgrounds reaping the greatest benefits (footnote Champions of Change). It is now accepted that the arts are uniquely able to boost learning and achievement for young children, students with disabilities, students from economically disadvantaged circumstances, and students needing remedial instruction (footnote Critical Links).

High poverty schools benefit dramatically from arts education. The arts teach children the skills necessary to succeed in life, including learning to solve problems and make decisions; building self-esteem and self-discipline; articulating a vision; developing the ability to imagine what might be; and accepting responsibility to complete tasks from start to finish.

Ask: Academic achievement for disadvantaged students should be strengthened by integrating successful arts education models into the schools. High poverty schools should be urged to use federal funds to integrate the arts into school curriculum to improve student achievement. Support should be provided for local, state, and national partnerships that promote standards and strategies in support of arts education.

EDUCATIONAL EQUITY IN AND THROUGH THE ARTS

Position: The Arts Are a Core Academic Subject and Must Reach All Children.

Argument: The federal government requires that a complete education for every child must include rigorous instruction in all "core academic subjects" - a designation given to the arts in the No Child Left Behind Act (NCLB). Unfortunately, implementation of NCLB has led to the erosion of arts education in the schools, with instructional time for arts and music reduced by 22% (footnote CEP). U.S. Secretary of Education Margaret Spellings has said, "Many educators across the country have shown that a focus in NCLB on reading and math is not mutually exclusive of the arts and music. In fact, we all know that a well-rounded curriculum that includes the arts and music contributes to higher academic achievement." A comprehensive arts education – fully integrated as a core subject of learning – fosters the creativity and innovation needed for a more competitive workforce.

Department of Education Arts in Education (AIE) programs identify and disseminate successful models of arts integration and professional development, and support the leadership initiatives of VSAarts and the John F. Kennedy Center for the Performing Arts. In addition, after-school learning partnerships with arts organizations which, when teamed with rigorous instruction in the arts during the school day, provide students with opportunities to achieve arts literacy. These programs decrease the frequency of delinquent behavior and school truancy, and improve overall academic performance, communication skills, and the ability to complete work on tasks from start to finish.

Ask: Congress must address the unintended consequences of NCLB that have diminished the presence of arts education in our schools; preserve and strengthen the arts as a defined core academic subject and improve the implementation of the arts as a core academic subject at the state and local levels. Congress should also continue and strengthen support for programs and partnerships that maximize the capacity of the arts to reach all students, including the Department's AIE program, the primary Federal initiative for developing national models in arts education and professional development.
TEACHER QUALITY AND THE ARTS

Position: The Recruitment and Retention of Highly Qualified Arts Teachers is Crucial to Creating Powerful Learning Communities and Maximizing Student Achievement.

Argument: Experts predict in the next ten years America will need more than 2 million new teachers to meet student enrollment. In light of current trends, addressing this need appears daunting at best. One-third of new teachers leave the profession within three years; half within five years. Most affected are urban, rural, and minority communities with large populations of students in economic poverty. But schools have the ability to retain their best teachers by transforming schools – especially those drowning in frustration and failure for students and teachers alike – with the infusion of the arts into their culture and curriculum. When schools embrace the arts, they can become vibrant and successful centers of learning and community life - places where students want to learn and teachers want to teach (third space footnote). For schools to develop this sense of community and collaboration through the arts, arts instruction for every child must be delivered by a “highly qualified” teacher with specific and expert arts education knowledge, as mandated by federal legislation. To do otherwise dilutes both the benefits in student achievement and opportunities for schools to retain their best teachers.

Ask: For student achievement to remain competitive, Congress must address the crisis in teacher recruitment and retention currently facing the American education community. This can be done by ensuring arts education specialists are the providers of arts instruction to all students, continuing support for professional development of new and experienced teachers, and increasing federal support for the transformation of struggling schools into successful learning communities through the arts.

IMPROVE NATIONAL MEASUREMENTS OF THE ARTS

Position: The U.S. Department of Education Must Include the Arts in All Research and Data Collection Regarding the “Core Academic Subjects.”

Argument: NCLB and current U.S. Department of Education policy make it clear that decisions regarding education should be made on the basis of research. Furthermore, as this nation crafts major policies regarding the future of public education, it is imperative that sound research is available on the status of learning and teaching in our schools. The U.S. Department of Education is the only entity in a position to collect essential demographic information and to guide policy research of this kind. In the past, influential data-gathering has taken place in a manner that excludes the collection of information on the arts. For example, the January 1999 study on “Teacher Quality” specifically excluded arts teachers from the study sample. Meaningful research is needed to determine the status of dance, music, theater, and visual arts education. Since the arts are designated as a core academic subject, they should be included in all research and data collection efforts by the U.S. Department of Education.

For example, the Fast Response Survey System (FRSS) report, Arts in Education in Public Elementary and Secondary Schools, is the only Department of Education-produced research report on the status of how arts education is delivered in America’s public schools. The last FRSS report on arts education featured data collected in the 1999-2000 school year. An updated report with the next round of data collection is long overdue. The National Assessment of Educational Progress in the Arts (NAEP) – the national arts “report card” - provides critical information about the arts skills and knowledge of our nation’s students. The next NAEP is scheduled to be administered in 2008, and must stay on track. The FRSS and NAEP are essential to studying and improving access to the arts as a core academic subject.

Ask: The U.S. Department of Education’s research efforts must be strengthened by systematically including the arts in studies conducted on the condition of education, practices that improve academic achievement, and the effectiveness of Federal and other education programs.
Directory of Statewide Arts Education Organizations

Annette Alexander-Frank
Executive Director
Digital Arts, Film & Television
P.O. Box 1443
Royal Oak, MI 48066-1443
O: 248-547-0247
F: 248-547-1223
an@frank.comcast.net

Joanne Berry
Vice President
Theatre Alliance of Michigan
701 W. Ohio
Bay City, MI 48706
H: 989-864-7611
jberryim@aol.com

Ana Luisa Cardona
Arts Education Consultant
Michigan Department of Education
Office of School Improvement
P.O. Box 30008
Lansing, MI 48909
O: 517-335-0466
F: 517-335-2473
cardona@michigan.gov

Kim Dabbs
Executive Director
Michigan Youth Arts Festival
988 South Adams, Suite 207
Birmingham, MI 48009
O: 248-649-8888
F: 248-649-6688
info@myafonline.org

Donna M. Edwards
Director, Education Initiatives
ArtServe Michigan
17515 W. Nine Mile Rd., Suite 1025
Southfield, MI 48075
O: 248-557-8288 ext. 13
F: 248-557-8581
education@artservemichigan.org

Jon Fitzgerald
Executive Director
Michigan Interscholastic Forensic Association
2011 S. State
Ann Arbor, MI 48104
O: 734-764-1131
F: 734-998-6779
jonfitz@umich.edu

Madeline Fritz
President
Michigan Art Education Association
7971 West Opal Lake Road
Gaylord, MI 49735-9084
H: 939-939-8984
mfritz@qtlakes.com

Lora Frankel
Executive Director
VSA arts of Michigan
Mailing: P.O. Box 02805
Detroit, MI 48202-2805
100 W. Alexandrine
Detroit, MI 48201
O: 313-332-3303
F: 313-332-3387
lora@vsami.org

Susan Garza
Michigan Council Teachers of English
817 Star Dr.
DeWinton, MI 48423
O: 810-591-9184
sgarza@spacenetschools.com

Marilyn Hastings
Michigan Federation of Music Clubs
1917 Danbury East
Okemos, MI 48864-1872
H: 517-349-4447
maichrd@comcast.net

Virginia Kerwin
Executive Director
Michigan School Vocal Music Association
P.O. Box 1131
Big Rapids, MI 49307-1131
O: 231-592-9344
F: 231-592-9345
kerwin@msvma.org

Chuck Norris
President
Michigan Music Educators Association
7326 Magnolia Drive
Janison, MI 49420
O: 616-331-3385
norrisc@qvsu.edu
Paul Stanifer  
Executive Director  
*Michigan School Band & Orchestra Association*  
3965 Okemos Rd., Suite A3  
Okemos, MI 48864-4206  
O: 517-347-7321  
800-9-MSBOA-9  
F: 517-347-7325  
stanifer@msboa.org or msboa@msboa.org

Diane Winder  
*American String Teachers Association*  
Eastern Michigan University  
Dept. of Music  
N-101 Alexander Music Bldg.  
Ypsilanti, MI 48197  
O: 734-487-1421  
F: 734-487-6939  
Diane.Winder@emich.edu

William Tennant  
*American String Teachers Association*  
1009 S. Swegles  
St. Johns, MI 48879  
H: 989-224-8159  
wetennant@verizon.net

Renee Wood  
President  
*Michigan Dance Council*  
PO Box 381103  
Clinton Twp., MI 48038  
H: 586-322-2005  
president@michigandance.org
SOUND FILES FROM THE INTERNET

www.vgmusic.com  Sound effects from games:

www.hauntedillinois.com  (these are already downloaded and need to be converted from .midi’s to .wav’s but you can sample them here)

www.alfreesoundeffects.com
Go to free downloads to hear the sounds.

www.wavcentral.com

www.grsites.com/sounds/

www.koumis.com/soundfx.htm

http://simplythebest.net/sounds/

http://www.ibiblio.org/jimmy/folkden/index.html

www.jlovewavs.com

http://freeaudioclips.com/
KALPA provides online registration and tracking of professional development requirements. In the following pages, you will find the procedures and instructions for registering for professional development workshops.

**Obtain a username and password**
Please complete this online PDF form and return to Diana Donaldson. You will receive an e-mail when your account is activated.

**Log-on**
Go to: www.kalpapdms.com

When you enter the Web site, you will be asked to enter our district id, login name and password. Our district id is 13020. Your login name will be the first part of your groupwise e-mail address. Your password is the last four digits of your Social Security number. Be sure to remember this login name and password for future use.

For example:  
Login Name: scarlson (scarlson@battle-creek.k12.mi.us)  
Password: 1234

![Professional Development Manager](image)
Once you enter the KALPA's welcome page, you will see News with important messages posted for your convenience.

After reviewing the news, please click on "Enter Your Learning Path." Your personal Professional Development Plan will be displayed.
Pre-register
There are two ways to register for professional development workshops. One option is to click on "Available Courses," which is located on the left side of your screen. This will provide a drop down menu of all workshops in alphabetical order. When you select a course, it will show you all the information about that course. If you are interested in attending this course, click the "Register" button at the bottom of the screen. The course will be added to your Professional Development Plan (PDP).

The other option is to click on "Registration" on the PDP screen. Click on "All Courses" to search by keyword or session number, or you can click on "Calendar" to search by date. You will get a listing of workshops. Click in the check box for your selected workshops, and then click the "Register" button. It's that simple to register for a workshop!

You will not be able to register for a workshop that is already full, but you may try again later in case someone has cancelled his/her registration. Please note that you will not be able to register for workshops that have overlapping dates and times. For example, you will not be permitted to register for two classes on Tuesday at 9:00 a.m. If you have already registered and wish to change, you will need to cancel your registration for the first class then register for the second class.

Please register prior to attending professional development. This allows our presenters to be prepared. It also prevents classes being canceled due to lack of participation!
Special Requests
If you attend professional development that is not listed in our KALPA catalog, you may enter a special request. Special requests require the approval of your supervisor. Special requests should only be entered if fewer than 3 BCPS staff attended. Please use the course catalog as often as possible. District and Building dates should not be entered as special requests!

Print a Report
In addition to the quick registration process, you will be able to view and print your schedule at any time. From the Professional Development Plan screen, click on “Reports” to print a list of workshops for which you have registered.

Receiving PD Credit
When you have completed a workshop, log-on to KALPA to change your course status to taken (or not taken if you did not attend). To change the status, click on the blue underlined registered in the status column. A pop-up screen will appear, select the correct option and click update. To move your courses to the proper bucket (district, building, misc/other or new teacher) click on the blue underlined credit hour. A pop-up screen will appear, select the correct option and click update. If the bucket you need is not available, please contact Diana Donaldson.

Tutorial
There is a tutorial available if you need assistance using the Web site. From your Professional Development plan screen, click on “Tutorial” to access the information. If you need additional assistance, please contact Diana Donaldson at 788-6604.
**SCHOOL ADMINISTRATION OFFICES**  
**(BY DEPARTMENT)**

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<tr>
<td>Norm Russell/Dennis Carr - Maintenance</td>
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<tr>
<td>SUPERINTENDENT</td>
<td>Charles E. Coleman Ed.D.</td>
<td>9465</td>
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<tr>
<td>Administrative Assistant - Susan Lampas</td>
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<tr>
<td>Board of Education Assistant - Nichole Greene</td>
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**COMMUNICATIONS DEPARTMENT**

<table>
<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Susan Robbins</td>
<td>9486</td>
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**EDUCATIONAL SUPPORT SERVICES**

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<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Assistant Superintendent – Gerry Mann</td>
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<tr>
<td>Administrative Secretary – Jackie Stefanski</td>
<td></td>
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</tr>
<tr>
<td>Operation Grad - Jim Sherman</td>
<td>2410 ext. 113</td>
<td></td>
</tr>
<tr>
<td>Director of Student Services - Ruth Carr (9313)</td>
<td>9482</td>
<td></td>
</tr>
<tr>
<td>Sandi Brunner (9312)</td>
<td>FAX: 660-5830</td>
<td></td>
</tr>
<tr>
<td>Mary Ann Morales (9311)</td>
<td></td>
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<tr>
<td>Bilingual Instruction - Jeanne Miralrio</td>
<td>9637</td>
<td></td>
</tr>
<tr>
<td>Student Recovery - Leon Buford</td>
<td>660-5812</td>
<td></td>
</tr>
<tr>
<td>Director, Math &amp; Science - Connie Duncan</td>
<td>9440</td>
<td></td>
</tr>
<tr>
<td>Cindy Oldner/Lea Reitz</td>
<td>FAX: 9589</td>
<td></td>
</tr>
<tr>
<td>Director of Alt. Education - Maurice Ware</td>
<td>9672</td>
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<tr>
<td>Adult Education - Charlie Jones</td>
<td>9515</td>
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<tr>
<td>Nina LaGrand</td>
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<td>Jerry Peterson</td>
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<tr>
<td>Mary Brandimore - ESL</td>
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<tr>
<td>Linda Jones</td>
<td>9514</td>
<td></td>
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<tr>
<td>FAX: 9545</td>
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**FINANCIAL SERVICES**

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<thead>
<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Director, Deborah Nozicka</td>
<td>9506</td>
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<tr>
<td>Administrative Secretary Dorene Hughey</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chief Accountant/Purchasing Agent - Kathy Domenico</td>
<td>9504</td>
<td></td>
</tr>
<tr>
<td>Alphia Snyder</td>
<td>9505</td>
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<tr>
<td>Asst. Accountant - Michelle Pham</td>
<td>9512</td>
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<tr>
<td>Wendy Davis</td>
<td>9511</td>
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<tr>
<td>Doreen Stauffer</td>
<td>9510</td>
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<tr>
<td>Angela Biergeder – Student Activities</td>
<td>9513</td>
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<tr>
<td>Payroll Supervisor - Gayla Asher</td>
<td>9508</td>
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<tr>
<td>Kathy Outman</td>
<td>9509</td>
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<tr>
<td>FAX: 965-9507</td>
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**HUMAN RESOURCES**

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<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Assistant Superintendent - Larry Yarger</td>
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<tr>
<td>Personnel Manager - Dianne Hatley</td>
<td>9476</td>
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<tr>
<td>Admin. Asst. - Tina Powell</td>
<td>9468</td>
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<tr>
<td>Admin. Asst. - Angela Belson</td>
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<tr>
<td>Admin. Asst. - Jonathon Dungey</td>
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<td></td>
</tr>
<tr>
<td>FAX: 9490</td>
<td></td>
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<tr>
<td>Facilities and Operations Director - Denny Welling</td>
<td>9425</td>
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</tr>
<tr>
<td>Lynne Thompson</td>
<td>FAX: 9442</td>
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<tr>
<td>Facilities Director - Mike Crooks</td>
<td>9441</td>
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<tr>
<td>Kathy Lichtenberger</td>
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<tr>
<td>Jay Ostrander (Stock Room)</td>
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<tr>
<td>Transportation, Asst. Director - Ronald Jamierson</td>
<td>9434/9435</td>
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<tr>
<td>Giles Herb/Sharon Cubbon</td>
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<tr>
<td>Energy Manager - Steve Osborn</td>
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**FOOD SERVICE DIRECTOR**

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<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Food Service Director – Jeff Bennett (9521)</td>
<td>9503</td>
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<tr>
<td>Deb Duane</td>
<td></td>
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<tr>
<td>Jerri Stafford</td>
<td>FAX - 965-9522</td>
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**CURRICULUM & INSTRUCTION**

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<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Assistant Superintendent - Kathy Griffey Ed.D.</td>
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<tr>
<td>Administrative Secretary - Marti Ellery</td>
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<tr>
<td>Director, Outdoor Education Center - Del Bachert</td>
<td>721-8161</td>
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<tr>
<td>El East - 721-1066</td>
<td></td>
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<tr>
<td>Terry Warren</td>
<td>FAX: 721-1071</td>
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<tr>
<td>Coord. Humanities &amp; Lang. Arts - Robin Abbott</td>
<td>9794</td>
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<tr>
<td>Coord. Fine Arts &amp; Talent Dev. - Loraine Cowe</td>
<td>9645</td>
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<tr>
<td>Coord. Math &amp; Science - Teresa Ballard</td>
<td>660-5821</td>
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<tr>
<td>Reading Specialist - Sandra Bolden</td>
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**ECE Department:**

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<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Grant/compliance: Chandra Youngblood (AJ)</td>
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<tr>
<td>Parent Coord: Winnie Wallace (LA)</td>
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<tr>
<td>Curriculum: Toni Miller (LA)</td>
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<tr>
<td>ECE Secretary: Kathy Niedzwiecki (AJ)</td>
<td>9765</td>
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<tr>
<td>FAX: 965-4109</td>
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<tr>
<td>Director, 21st CCLC - Jennifer Bonner</td>
<td>9680</td>
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<tr>
<td>DeeAnn Brauer</td>
<td>965-3883</td>
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<tr>
<td>FAX: 965-9432</td>
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**Resource Development Coordinator - Jeff Greene** | 9646 |
| Stephanie Kent | 788-6604 |

**Technology (Automated options):**

<table>
<thead>
<tr>
<th>Role</th>
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<tbody>
<tr>
<td>Director, Stephanie Casterline</td>
<td>660-5856</td>
<td></td>
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<tr>
<td>Network Administrator, Ben Garberick</td>
<td>965-9667</td>
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<tr>
<td>Database Analyst, Andrew Pleasant</td>
<td>965-9492</td>
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<tr>
<td>Applications Trainer, Kevin Bullard</td>
<td>660-5800</td>
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<tr>
<td>Technician Supervisor, Chad Osborne</td>
<td>660-5810</td>
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<tr>
<td>FAX: 965-9600</td>
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**CALHOUN AREA TECHNOLOGY CENTER** | 968-2271 |
| Director - Gene Niedzwiecki | 231 |
| Principal - Jan Vogel | 289 |
| Dean of Students - Linda Newell | 273 |
| FAX: 968-4344 |

**CISD Special Education**

<table>
<thead>
<tr>
<th>Role</th>
<th>Name</th>
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<tbody>
<tr>
<td>Supervisor, Middle School - Jeanine Mattson-Gearhart</td>
<td>9783</td>
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<tr>
<td>Khi Palmer</td>
<td>9775</td>
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<tr>
<td>Supvr. High School, Oper. Grad, MYC - Jennifer Gwillim</td>
<td>9759</td>
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<tr>
<td>Supvr. Elem. – Lynn Bonyng</td>
<td>9448</td>
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<tr>
<td>Early Childhood Education</td>
<td>441-1853</td>
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<tr>
<td>Psychologists</td>
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<tr>
<td>Melissa Denton</td>
<td>9444</td>
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<tr>
<td>Dale Snow</td>
<td>9446</td>
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<tr>
<td>Marisa Brown</td>
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<tr>
<td>Michele Leither</td>
<td>441-1860</td>
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<tr>
<td>Opal Nelson</td>
<td>9450</td>
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**Social Workers**

<table>
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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Constance Porter - Post</td>
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<tr>
<td>David Krajewski – W.K. Kellogg</td>
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<tr>
<td>Lynn Bailey-Neal – Ann J. Kellogg</td>
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<tr>
<td>Susan Burrill - BCCCHS</td>
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<tr>
<td>Jean Wright - Wilson</td>
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<tr>
<td>Pamela Dedaux - Northwestern</td>
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<tr>
<td>John McDade – Springfield Middle School</td>
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<tr>
<td>Connie Lutes – Valley View</td>
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</table>
BATTLE CREEK CENTRAL HIGH SCHOOL
TELEPHONE NUMBERS
2006 - 2007

MAIN OFFICE
Bruce Barney, Principal ......................................................... 9526
Bernie Gordier, Secretary ....................................................... 9531
Judy Pollack, Attendance ....................................................... 9570
Tracy Nofs, Grade Principal for Curriculum & Instruction ........ 9548

SMALL LEARNING COMMUNITIES
Jennifer Kay, Facilitator ....................................................... 9580

PHYSICAL WORLD & STRIDE SMALL LEARNING COMMUNITY (new enrollment A-F)
Gus Calbert ............................................................... 9563
Jean White, Secretary ....................................................... 9563

BUSINESS & HUMAN EXPERIENCE SMALL LEARNING COMMUNITY (new enrollment G-N)
Toni McClenny .......................................................... 9546
Linda Sheldon, Secretary .................................................... 9546

HEALTH & VISUAL ARTS SMALL LEARNING COMMUNITY (new enrollment O-Z)
Terris Todd ............................................................. 9552
Amy Vandybogurt, Secretary ........................................... 9552

ALUMNI OFFICE .......................................................... 965-9569

ATHLETIC DIRECTOR - Fred Jones ........................................ 9535
Karolyn Ferguson, Secretary ............................................. 9536
FAX: - 965-3851

AUDIO VISUAL - FAX: 9564 ................................................. 9564

BUSINESS DEPARTMENT OFFICE ........................................ 9540

CAFETERIA ............................................................... 9567

CONFERENCE ROOM (C-18) .................................................. 9557

COUNSELING CENTER ....................................................... 9573
Marc Collisti ............................................................ 9578
John Burrill .............................................................. 9574
Renee Purdy .............................................................. 9579
Whitni Townes ........................................................... 9577
Tony Warren ............................................................... 9576
Suzi Sturdivant, Secretary ............................................. 9573
Arla Sessions, Registrar .................................................. 9575
FAX: 788-6648

FORENSICS/DEBATE ........................................................ 9571

LOUNGE ................................................................. 9566

MCQUISTON LEARNING CENTER ....................................... 9541

MEDIA CENTER, Mary Jean Oberdoerster, Librarian ............... 9565
Ellen Steudle, Secretary ................................................ 9565

MUSIC DEPARTMENT ..................................................... 9559
Band ........................................................................... 9560
Vocal and Orchestra ....................................................... 9560

POHI - A6 ................................................................. 9592

POLICE LIAISON OFFICER - Vince Munoz .......................... 9530

PUBLICATIONS .......................................................... 9562

ROTC - Col. Linda Fronczak ............................................ 660-5867
Sgt. Moore ................................................................. 965-9599
FAX: 660-3528

SPECIAL EDUCATION DEPT. - Amanda Gutshall .................. 9542

STADIUM ................................................................. 9458

STUDENT HEALTH CENTER FAX: 9572 .............................. 9539

UPWARD BOUND - Grindl Williams, Director ....................... 9555
Pearlie McNutt, Retention & Records Coordinator ............... 9550
Shawna Smith, Educational Specialist .............................. 9550
Becky Goodwin, Secretary ............................................ 9550
FAX: 9558
EXAMPLE SUBSTITUTE LESSON PLAN:

Sub for Linda Hanson--Room B-16

Monday, March 19, 2007

No students allowed in the black file cabinets. Students DO NOT need access to anything on the teacher’s desk. They should come in, get their student folder from the student file cabinets in the corner, sit down, and log in.

Seating charts are attached.

1st Hour, Computer Animation 1 and 2

Animation 2 students are working on individual projects—Nursery Rhyme. Nobody is finished. Everybody works. No playing on the Internet.

Animation 1 Assignment List
They should work on and finish in this order:
1. Chapter C Lessons – start wherever they left off, finish the chapter. The book files are in their H: drives.
2. Name Movie—to be turned in on Tuesday.
3. ManyAliens movie assignment—continue working on this one.

David Henry is on independent study doing Microsoft Office 1st and 4th hour. His manual is in the black cabinet in the front corner. It’s OK if he gets it out of the drawer.

2nd Hour, Computer Aided Film/Video Production 1 and 2

*** Dan Lonchar is allowed to come in and work on a computer any time during the day.

No cameras or film crews out of the room today. Everyone stays.
Play the DVD Random Access. They can work on editing on the computer while it is playing.
They should pay close attention to the talk show portion.

3rd Hour, Computer Animation 1 and 2—Same plan as 1st Hour

Advisory

Current Event: they should read the article, “Is It Time to Bring Back the Draft?” Please collect the articles before they leave. They can use the computers when they’re finished reading.

4th Hour, Computer Animation 1 and 2—Same plan as 1st Hour

5th Hour, Planning Period
6th Hour, Web Design

Hand out Lesson 6 packet. They have done these types of assignments before so they know how to use the packet. They should keep the packets in their folders.
VISUALLY IMPAIRED

General description of Population:

- A student who has a visual impairment, which significantly interferes with learning.

Common Characteristics:

- Student may need materials adapted (i.e., Braille, large print)
- Student may wear corrective lenses
- Student may appear to be frowning/grimacing or squinting while trying to focus
- Student may have difficulty with mobility

Instructional Strategies:

- Provide hands-on experiences
- Low-vision training (visual utilization)
- Provide extra time
- Use concrete examples as much as possible
- Plan ahead so materials can be adapted by teacher consultant for the visually impaired
- Reproduce handout materials in large print or Braille or give assignments and/or tests to the teacher consultant at least two days in advance so that they can be appropriately reproduced for the student
- Use worksheets with black lines
- Allow students with visual needs to sit in the front of the classroom
- When writing on chalk board, read aloud as you write
- Avoid using overhead projectors
- Pair students with a “buddy” for movement and instrument playing
- Use barred instruments with clearly visible *pitch letter names-Braille

Behavioral Strategies:

- Describe expected behaviors in detail and ask student to repeat so you know if the student understood them
- Encourage independence; make the student responsible for his/her own behaviors
- Utilize good organization skills to keep frustration level down
• Encourage student choices when appropriate
• Be consistent

**AUTISTIC IMPAIRED**

**General Description of Population:**

• Autism is a disability that severely impairs the way sensory input is processed, causing problems in communication, social behavior and in learning.

**Common Characteristics:**

• Language develops slowly or not at all; words are used without attaching the usual meaning
• Uneven patterns of intellectual functioning
• Difficulty in understanding and expressing emotions
• Behavior problems (i.e., throwing temper tantrums) often resulting in a lack of communication skills
• Disturbance in the capacity to relate appropriately to people, events and objects; less responsive to social cues
• Resistance to change in routines
• Overly sensitive to touch and under responsive to pain. Sight, hearing, touch, smell and taste may be affected
• Play lacks spontaneity and imagination-may spend time alone rather than with others

**Instructional Strategies:**

• Maintain instruction at concrete level
• Be concise with verbal directions
• Keep instruction routine and predictable
• Expose student to general education peers in order to model appropriate social behaviors
• Use pictures or works to reflect daily routines or instruction
• Use a multi-sensory approach
• Be aware that too much sound may overstimulate

**Behavioral Strategies:**
• Be consistent and keep routines
• Specify consequences for inappropriate behavior
• Be firm and clarify expected behavior
• Constantly check to see if the student has comprehended what is said
• Assist student in communicating needs and wants
• Allow the student to be as independent as possible

**PHYSICAL OR HEALTH IMPAIRED**

**General Description of Population:**

- A term applied to a person who has a physical or other health impairment, which interferes significantly with learning or requires physical adaptation in the school environment.

**Common Characteristics:**
- Mild, moderate and severe physical needs
- Distractibility
- Needs assistance with problem solving
- Poor fine motor coordination
- Poor gross motor skills
- Physical limitation of limbs
- Medical/health problems

**MILD**
- 75 to 100 percent personally independent
- Able to walk without appliances
- Possibly one to three limbs involved mildly
- Able to attend regular school environment with minimal support
- May have mild perceptual problems which will need classroom adjustments
- May observe some inability to organize
- Works slower than most of class

**Moderate:**
- 50 to 90 percent personally independent
- Able to walk, but usually wears some type of appliance, either a brace or a splint
- May have more severity in lower extremities and one upper extremity
- Spasticity or flaccidity is present
• Perceptual problems may be present and will need remediation or adaptation in classroom
• Organizational skills impaired
• Fine motor problems apparent (written communication skills labored or slow)
• Electronic equipment enhances performance

Severe:
• 100 percent dependent in daily living skills
• Verbal/written output impaired
• Wheelchair user
• Poor to no hand function
• Needs adaptive appliances to function
• Needs supportive services for management of needs
• Environmental adaptations necessary
• Electronic equipment necessary for written/verbal output

Instructional Strategies - General:

• Present material in small amounts
• Do not over clutter blackboards
• Check knowledge through verbal responses
• Be flexible and creative
• Provide peer tutors or helpers
• Break all tasks into small parts
• Provide extra time for assignments
• Reduce homework amount, taking into consideration student's physical ability to complete it in a timely fashion

Additional Instructional Considerations:

• Maintain a communication link with all individuals involved with the student--parent(s), doctors, instructional assistants, therapists, special and general education teachers--to assure appropriate and coordinated instruction
• Agree on a schedule for support staff services that minimally infringes on basic instruction

Behavioral Strategies:
• Expect students to reach all classroom goals
- Make adaptations for physical management, not for behavioral expectation
- Do not become over-protective
- Promote student independence and responsibility for own behavior
- Provide positive reinforcement

**HEARING IMPAIRED**

**General Description of Population:**

- A student who has a hearing impairment, which interferes significantly with learning.

**Common Characteristics:**

- Hearing loss ranges from mild to profound
- Mild to severe language and communication deficits
- Vision is a primary channel for information intake
- Students may or may not wear hearing aids or an auditory trainer, depending on the hearing loss

**Instructional Strategies:**

- Provide proper physical setting which includes preferential seating and proper lighting
- Maintain good eye contact, speak in front of the students and utilize distinct lip movements when speaking
- Classes should emphasize language acquisition
- Provide proper physical setting conducive to communication needs
- Place student in a classroom away from auditory disturbances
- Provide opportunities for students to “feel” sound vibrations
- Utilize ASL when possible
- Require presence of interpreter

**Behavioral Strategies:**

- Involve students in discussion and developing classroom rules
- Promote respect for self and understanding of the rights of others as every school day progresses
- Maintain consistency
- Continuously repeat and reinforce expected classroom behavior
- Be consistent

**TRAUMATIC BRAIN INJURED**

**General Description of Population:**
- Students who have received a traumatic brain injury have difficulties with their ability to function cognitively, socially and physically.

**Characteristics:**
- High frustration levels
- Fatigue
- Possible irritability
- Difficulties in the following areas:
  - Registering new information
  - Seeing relationships (similarities/differences)
  - Understanding abstract levels of meaning (e.g., figures of speech, metaphors)
  - Holding several words or thoughts or intentions in mind at one time
  - Recalling pre-injury information
  - Recalling events form earlier in the day or previously
  - Setting goals
  - Perceiving strengths and weaknesses in an objective manner
  - Focusing attention and filtering out distractions
  - Maintaining attention
  - Organizing objects into appropriate groups
  - Perceiving the spatial orientation of objects
  - Recognizing objects, if too much is presented a once or too rapidly

**Instructional Strategies:**
- Provide sequential instruction
- Arrange the classroom environment to be distraction free
- Provide clear instructions
- Provide clear test instructions with examples
- Utilize highly structured tasks
Behavioral Strategies:

- Redirect behavior
- Change the subject/environment when needed
- Provide positive reinforcement
- Given student choices
- Allow student to explore what he or she really wants
- Structure situations so that the student can practice perceiving the feeling of others or how to respond appropriately

**TRAINABLE MENTALLY IMPAIRED**

General Description of Population:

- A term used to describe a (middle) range of mental impairment which moderately interferes with learning.

Common Characteristics:

- Understanding of concepts seems to be more concrete
- Immature social skills (tend to model immediate peer group)
- Distractible
- Responds best to one-to-two-step directions
- Delays in expressive and receptive language
- Poor retention skills
- Auditory processing delays

Instructional Strategies:

- Require demonstrated vs. verbal directions
- Use multi-sensory approaches (tactile, verbal and auditory materials)
- Use concrete, rather than abstract materials
- Use manipulative materials
- Encourage partial participation in large group activities
- Keep an open mind, think positively and be willing to take risks
- Maintain a sense of humor

Behavioral Strategies:

- Be consistent
Utilize various approaches to build self-esteem
Use reinforcers (behavior modification)
Utilize a circle of friends to reinforce

EDUCABLE MENTALLY IMPAIRED

General Description:

A term to describe a form of mental impairment, which significantly interferes with learning.

Common Characteristics:

- IQ scores between 55 and 70
- Lack of development in the cognitive domain
- Information learned in one setting may not be applied to another
- Interaction with environment may not result in the acquisition of new skills

Instructional Strategies:

- Be concrete and clear in instructions
- Use appropriate materials which are motivational and allow for success
- Work toward independence
- Reduce distractions
- Use a peer assistance program
- Encourage or provide group activities
- Use multi-sensory approach as much as possible
- Give immediate positive reinforcement
- Encourage students in leadership roles

Behavioral Strategies:

- Provide classroom rules in a clear and understandable manner
- Ask student to tell you the meaning of the classroom rules and consequences for not following the rules
- Make expectations clear
- Be firm, fair and flexible
- Be consistent
- Encourage students to make choices
LEARNING DISABLED

General Description:

- A student who has average or above average ability with a severe discrepancy between performance and potential in a specified area of learning.

Common Characteristics:

- Easily distracted
- Letter reversals and transposals
- Difficulty with retrieval and transfer of information
- Completing timed tasks
- Difficulty with spoken instructions
- Weak visual memory for symbols (letters)
- Can be impulsive
- Lack of planning and organizing skills
- Difficulty with abstract reasoning
- Difficulty with note taking
- Difficulty with writing
- Difficulty with expressing ideas

Instructional Strategies:

- Plan ahead and be flexible
- Shorten assignments
- Allow more time for work
- Use multi-sensory approach
- Praise in public; correct in private
- Allow student to use technology
- Provide student with note taking format
- Assist students with written and spelling answers
- Arrange for students supporting students (cooperative learning)
- Arrange the classroom to be motivational, but without distractions
- Analyze classroom activities and adapt environment whenever possible
- Ask probing questions to ensure learning and promote communication
- Give clear directions, stand and speak in front of student and write clearly
- Move gradually from concrete examples to abstract generalizations
Behavioral Strategies:

- Praise often
- Be consistent
- Be sure student know class rules
- Clarify often with student
- Set limits
- Constantly recognize student achievement
- Give clear and precise directions
- Be firm, but fair

EMOTIONALLY IMPAIRED

General Description of Population:

- Students whose behavior problems affect their education adversely to the extent that they cannot profit from a regular learning situation without special education support.

Common Characteristics:

- Attention-getting behavior
- Low self-esteem
- Limited problem solving skills
- Poor impulse control
- Defiance of authority figures
- Personal struggle with controlling self
- Conduct disorders
- Behavior adversely affects learning
- Poor communication skills
- Problems working in groups
- General mood of unhappiness
- Poor conflict resolution
- Can be aggressive

Instructional Strategies:

- Present materials at independent level, not frustration level
- Assign short, manageable tasks
- Give short expectation/directions to be repeated frequently
Follow through on everything
- Be willing to modify classroom expectations and homework problems
- Present materials for all learning styles (e.g., auditory, visual)
- Allow for peer tutoring
- Provide positive reinforcement
- Structure classroom environment

**Behavioral Strategies:**

- Use positive reinforcers
- Do not place hands on the student
- Keep a sense of humor and use it
- Give two choices only, either/or
- Be firm, fair and flexible
- Do not put unrealistic expectations on the student
- Make expectations clear
- Avoid power struggles
- Be consistent
- Provide time-out options
- Establish a detailed behavior plan with consequences and share this with the student
- Teach problem solving strategies to the students
100 Things to Do Before/During/After Reading

NOTE: These items are not mean to be fillers of time. Rather, they should be implemented purposefully, with objectives that are clearly defined.

Pantomime: Scene student chooses or the class calls out to you.
Dramatic monologue for a character in a scene: what are they thinking/feeling at that moment—why?
Dramatic monologue for a character while they are out of the book: where are they? Why? What are they thinking?
Business Card Book: Write the story in the most compelling way you can on paper the size of a business card.
Postcard: Write to a friend about this book; to the author; to a character in the book; write as if you were the character or author and write to yourself.
Mapmaker: Draw a map of the book’s setting.
Moviemaker: Write a one-page “pitch” to a producer explaining why the story would or would not make a great movie.
Trailer: Movie previews always offer a quick sequence of the best moments that make us want to watch it; storyboard or narrate the scenes for your trailer. Focus on verbs.
Billboard: As in the movies, take what seems the most compelling image(s) and create an ad.
Adjective-itis: Pick five adjectives for the book or character(s), and explain how they apply.
Collage: Create an individual or class collage around the themes or characters in the book.
Haiku/Limerick: Create one about a character.
Cliff’s Notes: Take a chapter and, using Cliff’s format, create your own.
Roundtable: Everyone has a chance to talk about what intrigues, bothers, confuses you about the text.
Silent Roundtable: The only rule is the teacher cannot say anything during the period allotted for class discussion of a text.
Silent Conversation: A student writes about a story on paper; then passes it to another who responds in writing to what they said; each subsequent respondent “talks” to/about all those before.
Fishbowl: Impromptu or scheduled, 2-4 students sit in the middle of a circle made up of the rest of the class, and talk about a text; the class makes observations about the conversation then rotate individually into the circle.
Movie Review: Write a review of (or discuss) a movie based on a text.
Dear Author: After reading a text, write to the author via the publisher (who always forwards them).
Surf the Net: Prior to, while, or after reading a text, check out the Web and its offerings about the text, its author, or its subject.
Time Line: create a time line that includes both the events in the text and historical information of the time. Try using post-its on a whiteboard or butcher papers.
Mandala: Create a mandala with many levels to connect different aspects of a text, its historical time, and culture.
Transparencies: Annotate a portion of text teach has copied to a transparency; use with markers and then get up to present interpretation to class.

Gender-Bender: Rewrite a scene and change the gender of the characters to show how they might act differently; can also have roundtable on gender differences.

Picture This: Bring in art related to the text’s time or themes; compare, describe, discuss.

Kids’ Books: Bring in children’s books about related themes and read these aloud to class.

Downgrade: Adapt myths or other texts for a younger audience; make into children’s books or dramatic adaptation on vide or live.

Draw!: Translate chapters into storyboards and cartoons; draw the most important scene in the chapter and explain its importance and action.

Oprah Book Club: Host a talk show: students play the host, author, and cast of characters; allow questions from the audience.

Fictional Friends: Who of all the characters would you want for a friend? Why? What would you do or talk about together?

State of the Union: The President wants to recommend a text to the nation. Tell him one important realization you had while reading the text and why he should recommend it.

Interview Question: When I interview prospective teachers, my first question is always “What are you reading and do you like it?”

Dear Diary: Keep a diary as if you were a character in the story. Write down events that happen during the story and reflect on how they affected the character and why.

Rosencrantz and Guildenstern: Write a story or journal from the perspective of characters with no real role in the story and show us what they see and think from their perspective.

Improv: Get up in front of class or in a fishbowl and be whatever character the class calls out and do whatever they direct. Have fun with it.

What If: Write about or discuss how the text would differ if the characters were something other than they are: a priest, another gender or race, a different age, or social class.

Interrupted Conversations: Pair up and trade off reading through some text; any time you have something to say about some aspect of the text, interrupt the reader and discuss, question, argue.

Found Poetry: Take sections of the text and, choosing carefully, create a found poem; then read these aloud and discuss.

13 Views: Inspires by Stevens’s poem “13 Ways of Looking at a Blackbird”: each stanza offers a different view of a character or chapter.

Personal Ad: What would a particular character write in a personal ad for a newspaper? After posting on board, discuss.

Holden Meets Hamlet: What would one character or person in one text say to another if given the chance to talk or correspond? Write a dialogue, skit, or letter.

Character Analysis: Describe a character as a psychologist or recruiting officer might: What are they like? Examples? Why are they like that?

Epistle Poem: Write a poem in the form and voice of a letter.

Write Into: Find a “hole” in the text where the character disappears (off camera) for a time and describe what they do when we can’t see them.
The Woody Allen: In *Take the Money*, Allen interviews the parents of a man who became a bank robber. Write an imaginary interview with friends and family of a character whom they try to help you understand.

Author Interview: Write an interview of a letter in which the character in a story asks the author a series of questions and reflects on how they feel about the way they were “made.”

The Kuglemass: Woody Allen wrote a story in which the character can throw any book into a time machine and it takes you inside the book and the era. What would you do, say, if you “traveled” into the text you are reading?

Time Machine: Instead of traveling into the book, write a scene or story in which the character(s) travel out of the book into today.

Biography: Write a biography of one of the characters who most interests you.

Autobiography: Have the character that most interests you write their autobiography of the time before, during, or after the story occurs.

P.S.: After you read the story, write an epilogue in which you explain—using whatever tense and tone the author does—what happened to the character(s) next.

Board Game: Have groups design board games based on the text then play them. This is especially fun and works well with the *Odyssey*.

Life Graph: Using the Life Graphy assignment, plot the events in the character’s life during the story and evaluate their importance; follow up with a discussion of graphs.

Second Chance: Talk or write about how it would change the story if a certain character had made a different decision earlier in the story.

Poetry Connection: Bring in poems that are thematically related to the text; integrate these into the larger discussion.

Reader Response: Pick the most important word/line/image/object/event in the text and explain why you chose it; be sure to support all analysis with examples.

Notes and Quotes: Draw a line down the middle of the page; on one side write down important quotes; on the other comment on and analyze the quotes.

Dear Classmates: Using email or some other means of corresponding, write each other about the text as you read it, having a written conversation about the text.

Convention Introduction: You have been asked to introduce the text’s author to a convention of teachers. What would you say? Write and deliver your speech.

Sing me a Song: Write a song/ballad/rap about the text, a character, or event in the text.

Write Your Own: Using the themes in the story, write your own story, creating your own characters and situation. It does not have to relate to the story at all aside from its theme.

Executive Summary: Take a 3x5 card and summarize what happened on one side; on the other, analyze the importance of what happened and the reasons it happened.

Pageant of the Masters: In Los Angeles this remarkable event asks groups to “stage” different classical paintings in real life. People would try to do a still life of some scene from a book or play; the class should then discuss what is going on in this human diorama.

Create a Diorama: Create a diorama of a particularly important scene.

Day in Court: Use the story as the basis for a court trial; students can be witnesses, expert witnesses called to testify, judge, jury, bailiff, reporter.
Censorship Defense: Imagine that the text you are reading has been challenged by a special interest group; students must write a letter defending the book, using specific evidence from the book to support their ideas.

Call for Censorship: In order to better understand all sides of an argument, imagine you are someone who feels this particular text should NOT be read and write a letter in which you argue it should be removed.

Speculation: Based on everything you know now in the text, what do you think will happen someday and why do you think that?

Questions, Anyone?: Students make a list of a certain number of questions they have about a particular character or aspect of the text; use these as the basis for class discussion.

Newspaper Connection: Have students read the newspapers and magazines to find articles that somehow relate to the issues and ideas in the text(s) you are reading; discuss.

Jigsaw: Organize the class into groups, each one with a specific focus; after a time rotate so that new groups are formed to share what they discussed in their previous group.

Open Mind: Draw an empty head (some people use a bathtub instead) and inside of it draw any symbols or words or images that are bouncing around the mind of the character of a story; follow it up with writing or discussing to explain and explore responses.

Interrogation: A student must come up before the class and, pretending to be a character or the author, answer questions from the class.

Post-its: If they are using a school book in which they cannot make notes or marks, encourage them to keep a pack of Post-its with them and make notes on these.

Just the Facts, Ma’am: Acting as a reporter, ask the students the basic questions to facilitate a discussion: who, what, where, why, when, and how?

SQ3R: when Reading a text, try this strategy: (S)urvey the assigned reading by first skimming through it; then formulate (Q)uestions by turning all chapter headings and subheadings into questions to answer as you read; next (R)ead the assigned section and try to answer those questions you formulated; now (R)ecite the information by turning away from the text as soon as you’ve finished reading the assigned section and reiterate it in your own words; finally (R)eview what you read by going back to your questions, the chapter headings, and asking yourself what they are all referring to, what they mean.

Brainstorming/Webbing: Put a character or other word in the middle of a web; have students brainstorm associations while you write them down; then have them make connections between ideas and discuss or writing about them.

Cultural Literacy: Find out what students already know and address what they need to know before reading a text.

Storyboard: Individually or in groups, create a storyboard for the chapter or story.

Interactive Story: If you have a student who is a computer genius, have them create a multimedia, interactive version of the text.

CyberGuides: Search the Net for virtual tours based on the books you might be studying.

Tableau: Similar to the Pageant of the Masters, this option asks you to create a still life setting; then someone steps up to touch different characters who come alive and atalk from their perspective about the scene.
Audio Books: There are many audio editions of books we teach now available; some are even read by famous stars who turn the book into its own audio performance. Recommend to students with reading difficulties or play portions of them in class.

Sound Off!: Play a video version of a book you are reading—only turn off the sound while students watch it. Have them narrate or discuss or write about what is happening, what the actors are revealing about the story through their gestures. Then compare what you saw with what you read.

Narrate Your Own Reading: Show kids how you read a text by reading it aloud and interrupting yourself to explain how you grapple with it as you go. Model your own thinking process; kids often don’t know what it “looks like” to think.

Magnetic Poetry: If working with a poem, enlarge it on a copier or computer and cut all words up into pieces; place in an envelope and have groups create poems from these words; later on discuss using the same words for different texts. Heavier stock paper is ideal.

Venn Diagram: Use a Venn diagram to help you organize your thinking about a text as you read it. Put differences between two texts on opposite sides and similarities in the middle.

Write an Essay: Using one of the different rhetorical modes (description, definition, etc.), write an essay in which you make meaningful connections between a text and your own experiences or other texts.

P.O.V.: How would it change the story if you rewrote it from a different point of view (1st to 3rd person)? Try it!

Daily Edition: Using the novel as the basis for your stories, columns, and editorials, create a newspaper or magazine based on or inspired by the book you are reading.

Read Recursively: On occasion circle back around to the beginning of the chapter or text to keep yourself oriented as to “the big picture.” This is especially important if you have questions to answer based on reading.

Oral History: If you are reading a historical text, have students interview people who have some familiarity

Guest Speaker: If you are reading a book that deals with a subject an expert might help students better understand, invite one in.

Storytelling: After reading a story, pair up with others and tell the story as a group, recalling it in order, piecing it together, and clarifying for each other when one gets lost.

Reciprocal Teaching: A designated student or group reads a section of a text and comes prepared to present or “teach” it to the class; follow up with discussion for clarification.

Make Your Own Test: Have students create their own test or essay questions about the text; this allows them to simultaneously think about the story and prepare for the text on it.

Recasting the Text: Students rewrite a poem as a story, a short story as a poem or play. All rewrites should then be read and discussed so as to understand how the different genres work.

Debates: Students reading controversial texts or novels with debatable subjects should debate the issues.

Literature Circles: Students gather in groups to discuss the text and then report out to the class for full-class discussion.
That Was Then, This Is Now: After reading the text, create a Before/After list to compare the ways in which characters or towns have changed over the course of the story. Follow up with a discussion of reasons.
Connection Double-Entry Diary

Name: ______________________

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<tr>
<th>Direct quote and page number:</th>
<th>This reminds me of...</th>
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Comprehension Constructor: Drawing Inferences

Name: ________________________________

Choose a question from your reading that hasn’t been answered to your satisfaction. Record the question below. Then, using the clues in the text, add any background knowledge you have to supply an inference. Remember many of these questions don’t have one right answer. Be brave!

1. Record a question you have from your reading that you are most curious about.

2. Go back to the text and record any textual evidence that might help you answer your question.

3. Combine the clues in the text with your background knowledge and try to answer the question you asked in number 1.
Directed Reading and Thinking Activity (DRTA): A Planning Sheet

Before Teaching: Setting Goals Set your teaching purposes.

1. Set goals for your DRTA.
   a. Affective goal—what emotional goal might you address through this activity?
   b. Conceptual goal—what content knowledge do you want students to gain through this reading? What issue do you want them to inquire into?
   c. Procedural goal—how are you helping students to know HOW to do something new as readers? What interpretive strategies are you assisting students to use?

Before Reading: Frontloading Activities Consider how to motivate your students to read this text. Also consider how to access or build background knowledge necessary for supporting their successful reading.

2. Design a frontloading activity.
   a. How will you prepare students to make personal connections during their reading?
   b. How will you activate personal background information and schema that will be useful during reading?
   c. How will you build background knowledge of important contexts, concepts, and vocabulary necessary to understanding?

Beginning to Read: Set a Purpose Consider how to preview the text and build positive expectations of it. Consider how to help students set a purpose that will motivate their reading and how to help students achieve entry into the text.

3. Support student entry into the reading transaction.
   a. Preview the whole text—get sense of structure and length.
   b. Read first section together or in small groups (or “think-aloud”).
   c. Consolidate important information and textual cues that need to be “carried forward” during the reading act.
   d. Make predictions about future action.
   e. Set personal (and academic/theme) purposes for reading—what do we want to find out?
   f. Continue to encourage the making of personal connections to the text.

During Reading: Guide Students’ Reading Consider how to encourage a deeper and fuller experience of the text.

4. Guide students’ reading by helping them to notice details and use particular strategies.
   a. Guide and support students to notice key details, stated and implied relationships, structural demands, and textual conventions.
   b. Help to continue to make personal connections.
   c. Guide them to notice and learn content.
After Reading  Consider how to encourage students to reflect on their experience of reading the text, what the text means, and how the construction of the text by the author contributed to textual meaning.

5. Take students back into the text.
   a. Alone and together.
   b. To reflect on constructedness and meaning of the text and reading experience.

Follow Up  Consider how to extend student understanding by asking them to go beyond the text, elaborate upon it, think how its meaning might apply to them in the context of their lives.

6. Design a final assignment to synthesize a coherent view of the text as a whole and consider thematic generalizations that go beyond the text.
   a. Student inquiry projects or writing that encourage further connections, motivates further inquiry, goes beyond the known to what may be known.
   b. Explore textual implications for students' own lives.
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## Visualization Double-Entry Diary

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Literacy Strategies

No matter which strategy you choose, be sure to write down the page #s!

MAKE A CONNECTION
"This reminds me of…"

ASK A QUESTION
"I wonder…"
"What is…"
"Why…"

NOTE THE AUTHOR'S TECHNIQUES
Sentence Structure
Paragraph Structure
Similes
Metaphors
Word Choice

SUMMARIZE
Give a synopsis of the plot, characters, setting, theme so far.

NOTE IMPORTANT QUOTES
Write down the quote, and a brief explanation of why it’s important.

NOTE THINGS YOU SEE, HEAR, SMELL, TASTE, OR FEEL IN YOUR MIND'S EYE
Write down the quote and note the words that help you “zoom in” on an image.
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**Think about *how you read***:

- I was distracted by...
- I started to think about...
- I got stuck when...
- I was confused/focused today because...
- One strategy I used to help me read this better was...
- When I got distracted I tried to refocus myself by...
- These word(s) phrases were new/interesting to me...I think they mean...
- I'll read better next time if I...
- When I read today I realized that...
- I had a hard time understanding...
# Highlight and Revisit

Name: _______________________

Title: ______________________

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Failure Notice

Ms. Hanson

Date: _____________

Current Grade: ________________

Class: ________________

Parent Signature: ________________________________

Phone # where I can reach you: ___________