ARIZONA ACADEMIC STANDARDS

GRADE 3

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The Arts Standards 1997

Foundations (Grades 1-3)

The Arts Standards Rationale

Dance, music, theatre and visual arts are everywhere in our lives, adding depth and dimension to the environment we live in and shaping our experiences, often so deeply or subtly that we are unaware of their presence. In any civilization, the arts are inseparable from the very meaning of the term "education." To be truly educated, one must have knowledge and skills in **Creating Art, Art in Context** and **Art As Inquiry**. In addition to specialized instruction in the arts, the knowledge and skills will be further enhanced by integration of the arts across the other curricular areas. Building mastery at each of the readiness, foundations, essentials, proficiency and distinction levels is the overriding principal of a rigorous arts education. As students continue to use a wide range of subject matter, symbols, images and expressions, they grow more sophisticated in their knowledge and use of the arts to investigate, communicate, reason and evaluate the merits of their work. As a result of developing these capabilities, students can arrive at their own knowledge, beliefs and values for making personal and artistic decisions and be better prepared to live and work in a constantly changing, expanding society.

All students will achieve the essentials level (see standards section of this document) in the four arts disciplines (music, visual arts, theatre and dance) and attain the proficiency level in at least one art form on or before graduation. All levels are built upon previous levels. Since students will achieve the proficiency level at different ages or rates, schools will provide curriculum to allow students who go beyond proficiency to study at the distinction level.

Education in the arts benefits students by:

- cultivating the whole child by building multiple literacies (e.g., developing intuition, reasoning, imagination and dexterity) into unique forms of expression and communication
- initiating them into a variety of ways of perceiving and thinking that will help them see and grasp life in new ways
- teaching the analyzation of nonverbal communication and the making of informed judgments
- enhancing understanding of themselves and others
- acquiring the tools and knowledge to take charge of their own learning—assessing where they have been, where they are and where they want to go
- promoting the processes of thinking, creating and evaluating
- developing attributes of self-discipline and personal responsibility, reinforcing the joy of learning and self-esteem, and fostering the thinking skills and creativity valued in the workplace
- demonstrating the direct connection between study, hard work and high levels of achievement
- giving them knowledge of potential career pathways or involvement in the arts
- encouraging experimentation with and utilization of current technology
- fostering a lifelong appreciation for and support of the arts

An education in the arts also benefits society and the workplace because students gain powerful skills for:

- understanding human experiences, both past and present
- learning to adapt to and respect others' ways of thinking, working and expressing themselves
- learning artistic modes of analyzing different situations, which brings an array of expressive, analytical and developmental tools to everyday experiences
- encouraging experimentation with, and utilization of, new electronic media and global networks to give them marketable workplace skills
- understanding the influences of the arts to create and reflect cultures
- understanding the impact of design on virtually all we use in daily life, and in the interdependence of work in the arts with the broader worlds of ideas and action
- learning adaptability and flexibility to meet the needs of a complex and competitive society
- learning the importance of teamwork and cooperation
- making decisions in situations where there are no standard answers
- bringing their own contributions to the nation's storehouse of culture
- communicating their thoughts and feelings in a variety of modes, giving them a vastly more powerful repertoire of self-expression
- carrying our individual and collective images and ideas from one generation to another
- recognizing the essential role the arts have in sustaining the viability of cultures

Whenever possible and within the limits and needs of individual districts, students need direct contact with objects, professional artists and performers through partnerships with state and local resources (e.g., museums, symphonies, artists in residence, traveling exhibits, theatre companies, art centers, dance companies).

Inservice and support to teachers, parents and students will be an ongoing process as innovative and integrated approaches for learning are developed within the four arts disciplines and across the other subject areas.

Success will be realized when all students have equal access to all the arts.

Research Supporting the Value of the Arts as Core Subjects

- The arts have far-reaching potential to help students achieve education goals. Students of the arts continue to outperform their non-arts peers on the Scholastic Assessment Test, according to the College Entrance Examination Board. In 1995, SAT scores for students who had studied the arts more than four years were fifty-nine points higher on the verbal and forty-four points higher on the mathematics portion than students with no course work or experience in the arts.

  The College Board, Profile of SAT and Achievement Test Takers, 1995

- The percentage of students at or above grade level in second grade mathematics was highest in those with two years of test arts, less in those with only one year and lowest in those with no test arts.

  Learning Improved by Arts Training, Nature: International Weekly Journal of Science, by Alan Fox, Donna Jeffrey and Faith Knowles, May 1996

- Researchers at the University of California, Irvine, studied the power of music by observing two groups of preschoolers. One group took piano lessons and sang daily in chorus. The other did not. After eight months the musical three year olds were expert puzzlemasters, scoring 80 percent higher than their playmates did in spatial intelligence--the ability to visualize the world accurately. This skill later translates into complex mathematics and engineering skills. "Early music training can enhance a child's ability to reason," says Irvine physicist Gordon Shaw.

  Scientists argue that children are capable of far more at younger ages than schools generally realize…the optimum "window of opportunity for learning" lasts until about the age of ten or twelve, says Harry Chugani of Wayne State University's Children's Hospital of Michigan.

  Why Do Schools Flunk Biology?, Newsweek, by LynNell Hancock, February 1996

- Classes were more interactive, there were more student-initiated topics and discussions, and more time was devoted to literacy activities and problem solving activities in schools using the arts-based "Different Ways of Knowing" program. The program also produced significant positive effects on student achievement, motivation and engagement in learning.

  Different Ways of Knowing: 1991-94 National Longitudinal Study Final Report, by J.S. Catterall,1995

- Self-concept is positively enhanced through the arts, according to a review of fifty-seven studies, as are language acquisition, cognitive development, critical thinking ability and social skills. The authors examined studies of measurable results in the emotional and social development of children. The relationship between music participation and self-concept was strongly in evidence.

  The Effects of Arts and Music Education on Student's Self-Concept, by J. Trusty and G. M. Oliva,1994

- As critics, the children learned to emphasize the value of rules, resources and bases for common knowledge in dramatic interpretation. As characters, they shifted perspective from self to other through voice, physical action, and connection to other characters.

  Learning to Act/Acting to Learn: Children as Actors, Critics, and Characters in Classroom Theatre, by Shelby Wolf, 1994

- Research at New York University revealed that critical thinking skills in the arts are transferred to other subjects,[1] which is something Ann Alejandro, a teacher in the Rio Grande Valley in South Texas, observes in her classroom everyday: "I am convinced of the parallels between teaching children how to draw and teaching them how to read and write. In all cases, students need to learn how to see, to interpret data from the word, the canvas, and the page."[2]

- The writing quality of elementary students was consistently and significantly improved by using drawing and drama techniques, compared to the control group, which used only the discussion approach. Drama and drawing techniques allowed the students to experiment, evaluate, revise and integrate ideas before writing began, thus significantly improving results.

  Drama and Drawing for Narrative Writing in Primary Grades, by B.H. Moore and H. Caldwell, 1993

- Students improved an average of one to two months in reading for each month they participated in the "Learning to Read Through the Arts" program in New York City. Students' writing also improved, the study revealed. "Learning to Read Through the Arts," an intensive, integrated arts curriculum, has been designated a model program by the National Diffusion Network and has been adopted by numerous schools and districts across the country.

  Chapter 1 Developer/Demonstration Program: Learning to Read Through the Arts, 1992-93; Office of Educational Research, New York City Board of Education, 1993, 1981, 1978

- Originality and imagination scores were significantly higher for preschool children with disabilities after participation in a dance program than for those participating in the adopted physical education program.

  Effect of a Dance Program on the Creativity of Preschool Handicapped Children, by D. Jay, 1991

- "Humanitas Program" students in Los Angeles high schools wrote higher quality essays, showed more conceptual understanding of history, and made more interdisciplinary references than non-Humanitas students. Low-achieving students made gains equivalent to those made by high-achieving students. The Humanitas Program incorporates the arts into a broad humanities curriculum, drawing upon the relationship between literature, social studies and the arts. The program has reached 3.500 students in twenty high schools.

  The Humanitas Program Evaluation Project 1990-91, by P. Aschbacher and J. Herman, 1991

- High-risk elementary students with one year in the "Different Ways of Knowing" program gained eight percentile points on standardized language arts tests; students with two years in the program gained sixteen percentile points. Non-program students showed no percentile gain in language arts. Students with three years in the program outscored non-program students with significantly higher report card grades in the core subject areas of language arts, mathematics, reading and social studies. Participants showed significantly higher levels of engagement and increased beliefs that there is value in personal effort for achievement. In total, 920 elementary students in fifty-two classrooms were studied in this national longitudinal study in Los Angeles, south Boston, and Cambridge, Massachusetts.

  Different Ways of Knowing: 1991-94 National Longitudinal Study Final Report, by J.S. Catterall, 1995

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[1] *National Arts Education Research Center Principal Research Findings, 1987-1991, by Jerrold Ross and Ellyn Berk, 1992*

[2] *Like Happy Dreams-Integrating Visual Arts, Writing and Reading, by Ann Alejandro, 1994*

Table 1. The Arts Standards

MUSIC

STANDARD 1: Creating Art
Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

STANDARD 2: Art in Context
Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

STANDARD 3: Art As Inquiry
Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

VISUAL ARTS

STANDARD 1: Creating Art
Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

STANDARD 2: Art in Context
Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

STANDARD 3: Art As Inquiry
Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

THEATRE

STANDARD 1: Creating Art
Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

STANDARD 2: Art in Context
Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

STANDARD 3: Art As Inquiry
Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

DANCE

STANDARD 1: Creating Art
Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

STANDARD 2: Art in Context
Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

STANDARD 3: Art As Inquiry
Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

The Arts Standards Integration Statement

Because the Arizona Department of Education has an expectation that the content areas will be integrated across the curriculum, this document provides suggested integration links for each discipline and its related standard. Arizona's Arts Standards address competence in the arts disciplines first of all. 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. A key factor in this approach to learning is the need for students to acquire enough prior knowledge and experience in one discipline to make applications in another.

Integration means identifying concepts shared among two or more content areas and including performance objectives for each discipline in the instructional model. All subject matter disciplines are comprised of concepts. A concept is an idea which applies to multiple content areas but which may represent the idea in different ways when used within each individual content area. Concepts can be very concrete or they can be representative of abstract ideas.

Learning is an integrative process. In a balanced curriculum, opportunities for students to use what is learned in one discipline to clarify or enhance an idea, concept, or skill in another occur almost daily. As learners work across the disciplines, there are many opportunities to discover relationships that lead to the process of forming ideas and concepts. This way of learning provides an intellectual stimulation involving thinking, feeling, and doing behaviors that enable students to be more flexible and inventive in their approaches to problem solving processes. All teachers, regardless of discipline, are encouraged to find links between their subjects and the area of the arts.

Integration links which appear in Arizona's Arts Standards follow the performance objectives (POs) within the standards. The links identify other disciplines and the concepts they share with the arts. These references suggest a few examples of the many ways creative teachers will make connections between content areas.

Credits: Visual and Performing Arts Framework for California Public Schools (1983)
National Standards for Arts Education (1994)

THE ARTS STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

MUSIC

STANDARD 1: CREATING ART (Music)

Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

- **1AM-F1. Sing/play a varied repertoire of songs from different genres and diverse cultures**

  PO 1. Sing and/or play American folk songs
  PO 2. Identify folk songs from various cultures
  PO 3. Sing and/or play folk songs from diverse cultures
  PO 4. Sing and/or play songs of various genres

  Possible links to: Foreign Language - culture, communication, communities; Social Studies - culture, race, region, location, history, values

- **1AM-F2. Sing/play, matching timbre and dynamics, in response to conductor cues (e.g., *ostinatos* [repeating patterns], partner songs [each student has his own part which fits together with others], in rounds, in groups)**

  PO 1. Explain a variety of conducting cues
  PO 2. Respond to specific conducting cues
  PO 3. Demonstrate simple conducting patterns and cues in 2/4, 3/4, and 4/4 time signatures
  PO 4. Properly respond to conductor's cues in performance

  Possible links to: Mathematics - shapes, measurement; Science - cycle, rhythm

- **1AM-F3. Read/perform whole, half, dotted half, quarter, eighth notes, and rests in 2/4, 3/4, and 4/4 time**

  PO 1. Identify meter and note/rest values of stated time signatures
  PO 2. Compare and contrast meter and note/rest values
  PO 3. Sing and/or play a simple rhythm pattern

  Possible links to: Mathematics - numbers, count, add, divide, time

- **1AM-F4. Sing/play expressively, on pitch and in rhythm with appropriate dynamics, phrasing, interpretation, timbre, diction, posture and tempo**

  PO 1. Listen to and describe the elements of expressive music
  PO 2. Perform a piece with expression
  PO 3. Compare and contrast music performed with and without expression

  Possible links to: Comprehensive Health - bodily balance; Social Studies – values

- **1AM-F5. Perform independent instrumental parts while other students sing or play contrasting parts**

  PO 1. Perform instrumental part alone
  PO 2. Perform instrumental part with contrasting parts of group

  Possible links to: Science - cause/effect, interaction

- **1AM-F6. Identify form, tension and release, and balance in music from listening to examples**

  Possible links to: Art - color, line, form, balance, texture

- **1AM-F7. Improvise in consistent style, meter and tonality (e.g., simple rhythmic variations, simple melodic embellishments) on familiar melodies, short melodies**

  PO 1. Identify a variety of elements for a given style
  PO 2. Perform a song in the specific style chosen (in PO 1)
  PO 3. Improvise musical segments in various styles

  Possible links to: Social Studies - culture, region, history, socialization, values

- **1AM-F8. Sing/perform with expression and technical accuracy a variety of musical literature representing diverse genres and cultures, with level of difficulty 2 on a scale of 1-6, including some songs performed from memory**

  PO 1. Sing/play numerous pieces within specific styles
  PO 2. Perform music of various styles for an audience
  PO 3. Perform music from memory

  Possible links to: Foreign Language - communication, culture, communities;
  Social Studies - culture, region, history, socialization, values

- **1AM-F9. Create/arrange short songs and instrumental pieces within specified guidelines, using a variety of sound sources**

  Note: Sound sources may include, but are not limited to, body percussion, found objects, non-pitched instruments, pitched instruments, computer generated sound sources

  Possible links to: Comprehensive Health - kinesiology, skeletal; Science - sound, electricity

- **1AM-F10. Listen to musical examples with sustained attention and self-discipline**

  Possible links to: Social Studies - socialization, values

- **1AM-F11. Use standard musical notation to record personal musical ideas and the ideas of others**

  PO 1. Identify constructs of standard musical notation
  PO 2. Write standard musical notation
  PO 3. Notate simple rhythmic and melodic dictation accurately

  Possible links to: Art – symbolism

STANDARD 2: ART IN CONTEXT (Music)

Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

- **2AM-F1. Identify various uses (e.g., songs of celebration, game songs, marches, dance music, work songs) of music in daily experiences and describe characteristics that make certain music suitable for each use**

  PO 1. Describe how music is used in daily experiences
  PO 2. List and classify songs used in different settings
  PO 3. Describe characteristics that make music suitable for each setting

  Possible links to: Foreign Language - culture, communities; Social Studies - culture, race, region, location, history

- **2AM-F2. Identify by genre or style examples of music from historical periods and cultures**

  PO 1. Identify historical periods and cultures
  PO 2. Classify musical examples into appropriate periods and cultures

  Possible links to: Foreign Language - culture, communication, communities; Social Studies - culture, race, region, location, history

- **2AM-F3. Identify and describe the roles of musicians (e.g., orchestra conductor, folk singer, church organist) in various musical settings and cultures**

  PO 1. Discuss the roles of different musical careers
  PO 2. List and classify a variety of musical careers that fit various settings and cultures
  PO 3. Describe the roles of musicians in various musical settings

  Possible links to: Social Studies - culture, race, region, location, history

- **2AM-F4. Explain personal preference for a specific musical work, using appropriate terminology**

  PO 1. Describe characteristics that make music suitable for each setting

  Possible links to: Foreign Language - culture, communities; Social Studies - culture, race, region, location, history

STANDARD 3: ART AS INQUIRY (Music)

Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

- **3AM-F1. Use appropriate terminology (e.g., tempo, meter, style, tonality, quarter notes/whole notes, types of musical instruments and voices) to describe and explain music**

  PO 1. Identify various musical terms
  PO 2. Describe a piece of music using appropriate terminology

- **3AM-F2. Explain personal preferences for specific musical works and styles**

- **3AM-F3. Identify and discuss the similarities and differences in music produced by themselves and others, using technology as one means of communicating personal ideas in a variety of forums (e-mail, Internet, MIDI technology, web pages)**

- **3AM-F4. Describe criteria for evaluating performances and compositions**

  PO 1. List constructs of performance (i.e., diction, articulation, style, genre)
  PO 2. Outline which constructs occurred in a given performance
  PO 3. Evaluate a given performance based upon the criteria from PO 2

- **3AM-F5. Identify ways in which the principles and subject matter of other disciplines taught in the school are interrelated with music**

  PO 1. Identify various principles of music
  PO 2. Identify various principles of other disciplines
  PO 3. Describe the interrelationship of principles from PO 1 and PO 2

  Possible links to: Art - color, line, form, space, texture, balance, rhythm, harmony, emotional, meaning; Comprehensive Health/Dance - time, force, energy, rhythm, motion, movement, kinesiology; Foreign Language - culture, communication, communities; Mathematics - numbers, count, add, divide, measurement, time, geometry, line; Science - equilibrium of force and structure, sound, cycle, chance, cause/effect, energy, balance, theory; Social Studies - culture, race, region, location, history

VISUAL ARTS

STANDARD 1: CREATING ART (Visual)

Students know and apply the arts, disciplines, techniques and processes to communicate in original or interpretive work.

- **1AV-F1. Select and use subjects, themes and symbols in works of art**

  PO 1. Use subjects in a work of art
  PO 2. Use themes in a work of art
  PO 3. Use symbols in a work of art

  Possible links to: Language Arts - subjects and themes; Social Studies - subjects and themes; Technology - use of electronic encyclopedias, indexes, catalogs as references

- **1AV-F2. Use additional arts media (e.g., crayon, photography, pastels, video), techniques, and processes to communicate a variety of ideas, experiences and responses**

  PO 1. Use unfamiliar art media in a work of art
  PO 2. Use unfamiliar techniques and processes in a work of art
  PO 3. Demonstrate how different media, techniques and processes can be used to communicate a variety of ideas, experiences and responses

  Possible links to: Language Arts - viewing and presenting recognized use of various visual media; Physical Science - properties of materials; Social Studies - source of subjects and themes; Technology - use of electronic encyclopedias, indexes, catalogs as references

- **1 AV-F3. Demonstrate knowledge and use of a variety of techniques, processes and media to create two-and three-dimensional artworks**

  PO 1. Create a two-dimensional artwork using a variety of techniques, processes and/or media
  PO 2. Create a three-dimensional artwork using a variety of techniques, processes and/or media

  Possible links to: Mathematics - patterns and geometry; Physical Science - demonstrate properties and effects of materials; Technology - interrelationships to produce a product or solve a problem

- **1AV-F4. Apply the elements of art and principles of design (e.g., showing perspective by varying the size of objects in a landscape) to create and control mass, form and space constructions**

  PO 1. Create an artwork with overlapping objects to show depth on a two-dimensional surface
  PO 2. Use varying sizes of objects in a composition to show depth (e.g., foreground objects appear larger than background objects)

  Possible links to: Mathematics - measurement and discrete mathematics; Science – optical Illusions; Technology - interrelationships to produce a product or solve a problem

- **1AV-F5. Organize and develop visual solutions to given problems such as using color and line to influence a response (e.g., joy, warmth, happiness, sadness) from the viewer**

  PO 1. Determine a variety of possible solutions to a given artistic problem (e.g., brainstorming)
  PO 2. Select best options to a given artistic problem
  PO 3. Create a work based on selected solution to the given artistic problem

  Possible links to: Mathematics - hypothesis generation and experimentation; Science - history and nature; Social Studies - symbols in society

- **1AV-F6. Use visual structures (e.g., organizational principles, expressive features, sensory qualities) to organize the components of own work into a cohesive and meaningful whole**

  PO 1. Create a finished work of art based on organizational principles (e.g., rhythm, emphasis, unity)
  PO 2. Use expressive qualities to create meaning in a finished work of art

  Possible links to: Language Arts - organization of idea; Mathematics - patterns and Fibonacci series; Science - balance and gravity

- **1AV-F7. Expand knowledge and use of different arts media (e.g., metals, paper casting, computer graphics, fiber arts)**

  PO 1. Describe characteristics of art media

  Possible links to: Science - properties of material; Social Studies - natural resources; Technology - product production, problem solving

- **1AV-F8. Demonstrate responsible use of tools and materials**

  Possible links to: Technology - proper use of tools; Workplace Skills - responsibility, task completion

STANDARD 2: ART IN CONTEXT (Visual)

Students demonstrate how interrelated conditions (social, economic, political, time, and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

- **2AV-F1. Select and demonstrate an understanding of how subject matter communicates meaning, themes, and ideas in works made by themselves and others**

  PO 1. Match similar subject matter in art images/object
  PO 2. Match various subject matter with various meanings or themes (i.e., smiling face with happiness or cityscape with growth of society)

  Possible links to: Social Studies - cultural awareness

- **2AV-F2. Demonstrate how elements of time period and location influence art**

  PO 1. Identify characteristics of particular periods of time within the history of art
  PO 2. Recall past information to suggest various influences on art images/objects (e.g., it looks like ...)

  Possible links to: Language Arts – articulation; Social Studies - time and place influences

- **2AV-F3. Identify and describe how history, culture and visual arts can and do influence one another**

  PO 1. Identify art images/objects from a particular culture
  PO 2. Tell what changes occur over time in a particular culture
  PO 3. Find commonalities in art images/objects from various cultures and time periods
  PO 4. Restate the purpose an art image/object served based on the cultural history of the maker (e.g., Kachina dolls to the Hopi)

  Possible links to: Foreign Language - cultural awareness and influences; *Mathematics - number lines/timelines; Social Studies - historical influences*

- **2AV-F4. Identify realistic, abstract, and non-objective artworks**

  PO 1. Identify realistic art works
  PO 2. Identify abstract artworks
  PO 3. Identify nonobjective artworks

- **2AV-F5. Describe careers (e.g., children's book illustrator, sculptor, graphic designer, painter, arts teacher, photojournalist, museum curator, architect, film animator) in the visual arts**

  PO 1. Identify careers in the visual arts
  PO 2. Explore possible career options in visual art
  PO 3. Identify the skills needed and career options in the creation of a product (e.g., the process of book making from idea to completion)
  PO 4. Present visual arts career information (e.g., role-playing, posters)

  Possible links to: Language Arts – articulation; Social Studies – historical preservation; Technology - skills required for various careers; Workplace Skills - career awareness

STANDARD 3: ART AS INQUIRY (Visual)

Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

- **3AV-F1. Identify and discuss the similarities and differences of art produced by themselves and others, using technology as one means of communicating personal ideas in a variety of forums**

  PO 1. Compare works of art produced by themselves to communicate a personal idea
  PO 2. Compare works of art produced by others to communicate a personal idea
  PO 3. Use electronic media to describe similarities and differences between art works

  Possible links to: Language Arts - purposeful writing; Technology - keyboard skills, word processing

- **3AV-F2. Understand there are various purposes for creating works of art**

  PO 1. Explain various purposes for art (e.g., function, ceremonial)
  PO 2. Identify various uses for art works in time and context
  PO 3. Determine the other purposes the artwork could have served

  Possible links to: Language Arts – articulation; Mathematics – categorizing; Social Studies - time and place concepts; Technology - electronic information sources

- **3AV-F3. Provide a rationale for why they like or dislike specific artworks based on the art elements, principles of design values and themes**

  PO 1. Use the elements of art to provide a rationale for one's own like or dislike of a specific artwork
  PO 2. Use the principles of design to provide a rationale for like or dislike of a specific artwork
  PO 3. Use values and themes to provide a rationale for one's own like or dislike of a specific artwork

  Possible links to: Language Arts – articulation; Mathematics – categorizing; Social Studies - time and place; Workplace Skills - electronic information sources

- **3AV-F4. Use appropriate visual art terminology to describe artworks**

  PO 1. Describe artworks using the elements of art and principles of design
  PO 2. Describe artworks based on its art form, tools, media, and processes used (e.g., sculpture, chisel, stone, and reduction)

  Possible links to: Foreign Language - terminology deviations; Language Arts - articulation, vocabulary; Workplace Skills- content vocabulary

- **3AV-F5. Describe how personal experiences and outside influences may affect the work of an artist, as well as the perceptions of the viewer**

  PO 1. Identify the influences and experiences of the artist in relationship to a particular artwork
  PO 2. Identify the influences and experiences of the viewer in relationship to a particular artwork
  PO 3. Compare the influences and experiences of the artist and viewer in relation to a particular artwork

  Possible links to: Language Arts – articulation; Social Studies - social context; Technology - use electronic information sources

THEATRE

STANDARD 1: CREATING ART (Theatre)

Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

- **1AT-F1. Working within a group use selected characters, environments, and actions to improvise a dramatic problem; formalize by recording and/or writing the dialogue and stage directions**

  PO 1. Describe characters within a dramatic activity
  PO 2. Sequence the events in the dramatic activity
  PO 3. Describe the environment
  PO 4 Choose appropriate props to enhance the scene
  PO 5. Improvise a dramatic scene
  PO 6. Write or record improvised dialogue and stage movement

  Possible links to: Language Arts - writing process, information gathering

- **1AT-F2. Imagine and clearly describe (e.g., through variations of movement and gesture, vocal pitch, volume and tempo) characters, their relationships, what they want and why**

  PO 1. Describe the imagined characters and their wants and needs (motivation), and basic relationships with the other characters in the scene
  PO 2. Demonstrate the character motivations and relationships through dialogue and movement

  Possible links to: Science- social perspectives

- **1AT-F3. As a character, play out her/his wants by interacting with others, maintaining concentration, and contributing to the action of classroom improvisations (e.g., scenes based on personal experience and heritage, imagination, literature and history)**

  PO 1. Develop small group improvisations based on characters' wants and needs
  PO 2. Interact in role with other characters in the improvisation
  PO 3. Use an imaginative range of movement and dialogue that is appropriate to the characters within the improvisation

  Possible links to: Language Arts – literature; Social Studies - history

- **1AT-F4. Draw or verbally describe mental images for the time, place and mood of classroom dramatizations**

  PO 1. As a group, decide on a time, place and mood for the improvisation
  PO 2. Use line, shape, texture, color, space, balance and pattern to depict the mental image that was developed through the group process

  Possible links to: Language Arts – literature; Social Studies - historical frameworks; Visual art - drawing, elements/principles of design

- **1AT-F5. Collaborate to choose elements of scenery, objects, sound, lighting, clothing and makeup to suggest the place, mood and characters for classroom dramatizations**

  PO 1. Choose available scenery pieces and/or props to suggest the chosen environment
  PO 2. Choose to lighten or partially darken the room to enhance the mood of the improvisation
  PO 3. Choose or create sound exploring a variety of sound media (e.g., body percussion, pitched and unpitched percussion, voices, found sounds, electronic sources) to enhance the meaning and mood of the improvisation
  PO 4. Choose available clothing, accessories, and props to suggest character

  Possible links to: Music - rhythm, tempo; Science - sound

STANDARD 2: ART IN CONTEXT (Theatre)

Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts.

- **2AT-F1. Research information (e.g., social, economic, political, time, place) to enrich classroom dramatizations**

  Given a story to improvise:

  PO 1. Use a variety of sources (e.g., library books, family information, pictures) to develop an image of the look, sound, touch, taste of the time and place of the story

  Possible links to: Comprehensive Health – senses; Foreign Language - culture

- **2AT-F2. Identify, by genre, examples of theatre about historical periods and cultures**

  Given an opportunity to see a production (television, film, theatre) about a different time or culture:

PO 1. Identify the culture by country of setting and time
PO 2. Explain the differences between comic and serious drama

Possible links to: Foreign Language – culture; Social Studies – history; Visual Art - art history

- **2AT-F3. Demonstrate how interrelated conditions (e.g., social, economic, political, time, place) influence the characters and stories in theatre**

  PO 1. Describe how place (e.g., cold or hot climate, desert or rain forest) and time (e.g., past, present or future) affects the characters in a play, film or television show

  Possible links to: Foreign Language – culture; Social Studies - history, economics; Visual Art - art history

- **2AT-F4. Discuss the role of theatre, film, television and electronic media in their lives and in the lives of others**

  PO 1. Graph how much television, film and theatre is viewed by one's self and others

STANDARD 3: ART AS INQUIRY (Theatre)

Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

- **3AT-F1. Describe how the performers communicate their characters and how the costumes, set, lights and sound contribute to classroom dramatizations and dramatic performances**

  PO 1. Describe the movement and vocal choices of the actors that helped to depict or distinguish their character
  PO 2. Discuss how costumes, set, lights, and sound helped to communicate the time, place and mood of the play

  Possible links to: Technology - tools

- **3AT-F2. Infer a character's motivations and emotions and predict future action or the resolution to a conflict in the drama**

  PO 1. Identify the characters' feelings at several specified moments in the play and speculate why they felt that way
  PO 2. Determine the motivations of two different characters in the play and determine the optional ending that each character would like to see
  PO 3. Discuss what might or could happen after the play ends

Possible links to: Comprehensive Health – relationships

- **3AT-F3. Identify ways in which the principles and subject matter of other disciplines taught in the school are interrelated with theatre**

  PO 1. Identify how a "good" speaking voice is similar to a singing voice
  PO 2. Discuss the effect of the music's genre, style, tempo, etc., in a theatre production
  PO 3. List elements of the short story that are similar to those of a drama
  PO 4. Relate subject matter of a play (time, place, story) to an historical event or personal/social problem
  PO 5. Identify and explore how actor movement is similar to dance in its use of space, range, tempo, and energy of movement
  PO 6. Discuss the visual art elements used in a theatrical presentation
  PO 7. Discuss how physical fitness is important to actors

  Possible links to: Comprehensive Health – fitness; Foreign Language - culture, communication; Mathematics - placement, balance, ratio

  3AT-F4. Analyze classroom dramatizations and, using appropriate terminology, constructively suggest alternative ideas for dramatizing roles, arranging environments, and developing situations, along with means of improving the collaborative process of planning, playing, responding, and evaluating

  PO 1. Discuss appropriate ways to give, take, and use constructive criticism
  PO 2. Describe what was effective about character dialogue and actions in telling a story
  PO 3. Suggest alternative dialogue and/or actions to tell a story or communicate character or movement
  PO 4. Suggest vocal techniques (e.g., volume, tempo, range, energy, clarity) that improve communication of character
  PO 5. Evaluate how well participants in classroom dramatizations worked together (e.g., listening, accepting ideas of others)

  Possible links to: Science – life, sound; Workplace Skills - relationship skills

- **3AT-F5. Explain personal preferences for specific dramatizations**

  PO 1. Identify a character that one enjoyed and explain one's own reaction
  PO 2. Identify and explain why a story, incident, or problem found in a play is interesting

- **3AT-F6. Compare and contrast art forms by describing theatre, film, television or electronic media productions, using technology as one means of communicating personal ideas in a variety of forums**

  PO 1. View several dramatic pieces (e.g., an historical/biographical play, fantasy, cartoon) and summarize each story
  PO 2. Compare and contrast characters, action, and environment within those productions

DANCE

STANDARD 1: CREATING ART (Dance)

Students know and apply the arts disciplines, techniques and processes to communicate in original or interpretive work.

- **1AD-F1. Demonstrate appropriate kinesthetic response and ability to concentrate while performing movement skills**

  PO 1. Demonstrate sustained focus while working on a movement task
  PO 2. Demonstrate accuracy in performing locomotor and nonlocomotor movement
  PO 3. Move in response to words, emotions, sounds, imagery or music

  Possible link to: Language Arts - word recognition

- **1AD-F2. Create a movement phrase with a beginning, middle and end with and without a rhythmic accompaniment with shapes at low, middle and high levels**

  PO 1. Suggest possible beginnings, middles, and endings for a movement phrase
  PO 2. Demonstrate shapes at low, middle and high levels
  PO 3. Create and demonstrate a complete movement phrase with, or without, accompaniment
  PO 4. Create individual and group design

  Possible link to: Mathematics - shapes, lines

- **1AD-F3. Discuss own impressions (e.g., based on life experiences, concepts from other sources) of a dance**

  PO 1. Observe and discuss a dance
  PO 2. Describe selected parts of a dance
  PO 3. Discuss how dance relates to personal experience

  Possible link to: Social Studies – values

- **1AD-F4. Demonstrate movement qualities (e.g., energy, force, power)**

  PO 1. Demonstrate the difference between tension and relaxation in stillness and motion
  PO 2. Demonstrate the differences between strong, light and heavy movement
  PO 3. Demonstrate the ability to vary the intensity of dynamics by changing the amount of energy used in a given movement

  Possible link to: Science - energy, change, motion

- **1AD-F5. Invent multiple solutions to movement problems**

  PO 1. Create several endings to a movement phrase
  PO 2. Change the order of a movement sequence
  PO 3. Combine dynamics in a movement phrase

  Possible link to: Mathematics - problem solving, addition, subtraction

- **1AD-F6. Create a dance phrase, then vary it, making changes in time, space and energy/force**

  PO 1. Create a dance phrase, then vary the tempo
  PO 2. Create a dance phrase, then vary the directions and level
  PO 3. Create a dance phrase, then vary the energy used

  Possible link to: Art - line, form; Music - tempo

- **1AD-F7. Demonstrate the ability to copy, lead, follow and mirror**

  PO 1. Follow and/or copy movements and shapes of a designated leader
  PO 2. Improvise with a partner or group as if looking into a mirror while sitting, standing and/or moving through space
  PO 3. Lead movements to be imitated by a group or partner

STANDARD 2: ART IN CONTEXT (Dance)

Students demonstrate how interrelated conditions (social, economic, political, time and place) influence and give meaning to the development and reception of thought, ideas and concepts in the arts

- **2AD-F1. Observe and describe the action and movement elements (e.g., time, space, energy/force) in a brief movement study**

  PO 1. Identify the movements in a brief movement study
  PO 2. Identify the dance elements of time (e.g., meter, tempo), space (e.g., directions, levels), and energy (e.g., intensity, dynamics) in a brief movement study
  PO 3. Analyze the dance elements of time, space, and energy in a brief movement study

- **2AD-F2. Describe how dances are similar and different in terms of one of the dance elements (e.g., space, shape, level, pathways)**

  PO 1. Observe various forms and styles of dance (e.g., ballet, modern, jazz)
  PO 2. Identify the similarities and differences between various dance styles

  Possible link to: Mathematics - one-to-one correspondence

- **2AD-F3. Select and demonstrate folk dances from various cultures and describe the cultural and historical context of each**

  PO 1. Observe and perform simple folk and ethnic dances
  PO 2. Identify similarities and differences between dances of different cultures and historical periods
  PO 3. Explain how dance is part of today's cultures

  Possible link to: Social Studies - culture, geography

- **2AD-F4. Identify and describe roles of dancers (e.g., Hopi butterfly dancers, ballet dancers, square dancers, Ballet Folklorico performers, modern dancers, East Indian Classical dancers) in various dance settings and cultures**

  PO 1. Define the role of dancers in various dance settings and cultures
  PO 2. Identify ways that the dancers' roles define, express, and communicate culture

  Possible link to: Social Studies - geography

- **2AD-F5. Explain how healthful practices enhance one's own ability to dance**

  PO 1. Identify appropriate warm-up activities
  PO 2. Identify the eating and sleeping habits that enhance the ability to dance

  Possible link to: Comprehensive Health – nutrition

STANDARD 3: ART AS INQUIRY (Dance)

Students demonstrate how the arts reveal universal concepts and themes. Students reflect upon and assess the characteristics and merits of their work and the work of others.

- **3AD-F1. Present their own dances to peers and discuss their meaning with competence and confidence**

  PO 1. Perform dance compositions for others
  PO 2. Describe what their dance is about
  PO 3. Explain the choices made to create the dance

  Possible link to: Language - verbal communication

- **3AD-F2. Discuss differing interpretations of and reactions to a dance produced by themselves and others, using technology as one means of communicating personal ideas in a variety of forums**

  PO 1. Use another medium (e.g., tape recorder, computer, camcorder) to communicate personal impressions of dance

- **3AD-F3. Recognize and explore multiple solutions to a given movement problem**

  PO 1. Identify multiple solutions to a given movement problem
  PO 2. Create multiple solutions to a given movement problem
  PO 3. Share multiple solutions to a given movement problem

- **3AD-F4. Identify ways in which the principles and subject matter of other disciplines taught in the school are interrelated with dance**

  PO 1. Explore the correlation between dance and other subject areas

ARTS GLOSSARY

AB A two-part compositional form with an A theme and a B theme; the binary form consists of two distinct, self-contained sections that share either a character or quality, such as the same tempo, movement quality, or style. [M, D]

ABA A three-part compositional form in which the second section contrasts with the first section. The third section is a restatement of the first section in a condensed, abbreviated or extended form. [M, D]

Abstract Not representational. Removed from the representative, yet retaining the essence of the original. [D, M, T, V]

Action The core of a theatre piece; the sense of forward movement created by the sense of time and/or the physical and psychological motivations of characters. [T]

Aesthetics A branch of philosophy that focuses on the nature of beauty, the nature and value of art, and the inquiry processes and human responses associated with those topics. [D, M,T,V]

Aesthetic Criteria Criteria developed about the visual, aural and oral aspects of the witnessed event, derived from cultural and emotional values and cognitive meaning. [D, M, T, V]

Aesthetic Qualities The perceptual aspects, emotional values and cognitive meanings derived from interpreting a work of art; the symbolic nature of art. [D, M, T, V]

Alignment The relationship of the skeleton to the line of gravity and the base of support. [D, V]

Alla breve The meter signature indicating the equivalent of 2/2 time. [M]

Articulation In performance, the characteristics of attack and decay of tones and the manner and extent to which tones in sequence are connected or disconnected. [D, M]

Artistic Choices Selections made by artists about situation, action, direction and design in order to convey meaning. [D, M, T, V]

Art Form Graphic or visual representation usually distinguished by process (i.e. painting, drawing, sculpture, photography) [V]

Note: Legend D-Dance, M-Music, T-Theatre. V-Visual Arts

Art Media Material used in the creation and study of visual art, such as paint, clay, cardboard,

canvas, film, videotape, models, watercolors, wood and plastic. [V]

Aural Having to do with the ear or the sense of hearing. [D, M]

Axial Movement Any movement that is anchored to one spot by a body part, using only the available space in any direction without losing the initial body contact. Movement is organized around the axis of the body rather than designed for travel from one location to another; also known as nonlocomotor movement. [D]

Call and Response A structure that is most often associated with African music and dance forms, although it is also used elsewhere. One soloist/group performs with the second soloist/group entering "in response" to the first. [D, M]

Canon Choreographic form that reflects the musical form of the same name, in which individuals and groups perform the same movement/phrase beginning at different times. [D, M]

Character A created being in a drama. [T]

Characterization The creative process whereby an actor understands the fundamental personality of a part and then projects it to the audience in such a way that the character becomes a living, convincing human being. [T]

Choreography, Choreographic Describes a dance sequence that has been created with specific intent. [D]

Classical A dramatic form and production technique(s) considered of significance in earlier times, in any culture or historical period. [D, M, T, V]

Classroom Instruments Instruments typically used in the general music classroom (e.g., recorder-type instruments, chorded zithers, mallet instruments, simple percussion instruments, fretted instruments, keyboard instruments and electronic instruments). [M]

Classroom Production The exploration of all aspects (e.g., visual, oral, aural) of a dramatic work in a classroom setting where experimentation is emphasized. Classmates and teachers are the usual audience. [T]

Clef One of the three symbols that indicate the location on the staff of G above Middle C, Middle C or F below Middle C. [M]

Constructed Meaning The personal understanding of dramatic/artistic intentions and actions and their social and personal significance, selected and organized from the aural, oral and visual symbols of a dramatic production. [T]

Context A set of interrelated conditions (e.g., social, economic, political) that influence the

context and give meaning to the reception of thoughts, ideas, or concepts and specific cultures and eras. [D, M, T, V]

Criticism Describing and evaluating the media, processes and meanings of works, and making comparative judgments. [D, M, T, V]

Drama A literary composition intended to portray life or character or to tell a story usually involving conflicts and emotions exhibited through action and dialogue, designed for theatrical performance. [T]

Dramatization The art of composing, writing, acting or producing plays. [T]

Dramatic Media Means of telling stories by way of stage, film, television, radio, laser discs or other electronic media. [T]

Dynamics, Dynamic Levels The expressive content of human movement, sometimes called qualities or effects. Dynamics manifest the interrelationships among the elements of space, time, and force/energy. Degrees of loudness. See also movement quality. [D, M]

Electronic Media Means of communication characterized by the use of technology including (but not limited to) computers, multimedia, CD-ROM, MIDI, sound boards, light boards, virtual reality, video, film. Used as tools to create, learn, explain, document, analyze, etc. [D, M, T, V]

Elements of Art Visual arts components, such as line, texture, color, form, value and space. [V]

Elements of Dance The use of the body moving in space and time with force/energy. [D]

Elements of Music Melody, rhythm, harmony, pitch, dynamics, timbre, texture, form, text or lyrics. [M]

Ensemble The dynamic interaction and harmonious blending of the efforts of many artists. [T, M]

Environment Physical surroundings that establish place, time, and atmosphere/mood; physical conditions that reflect and affect the emotions, thoughts, and actions of characters and the audience. [D, M, T, V]

Folk Work created and performed by a specific group within a culture. Generally these works originated outside the courts or circle of power within a society. [D, M, T, V]

Form The overall structural organization of a music composition (e.g., AB, ABA, call and

response, rondo, theme and variations, sonata-allegro) and the interrelationships of music events within the overall structure. [M] The structural organization of a drama (e.g., plot sequence; logical, realistic use of character and time/non-realistic use of character and time. [T] An element of art that is three-dimensional and encompasses volume. [V]

Formal Production The staging of a dramatic work for presentation for an audience. [T]

Front of House Box office and lobby (i.e., business services). [T]

Found Objects Objects that are used to create elements of music that were not originally designed for music (i.e., pencil, string, rubber band) [M] Objects that were not originally considered art media that are used to create works of art (e.g., tin foil, string, wire). [V

Genre A type or category of music (e.g., sonata, opera, oratorio, art song, gospel, suite, jazz, madrigal, march, work song, lullaby, barbershop, Dixieland). [M] A type or category of dramatic literature (e.g., comedy, tragedy, melodrama, farce, serious drama). [T]

Harmony, Harmonics Agreeable relationship between parts of a design or composition giving unity of effect or an aesthetically pleasing whole. [D, V] The combination of tones of a chord into music of three or more parts. [M]

Improvisation Movement that is created spontaneously, ranging from free form to highly structured environments, but always with an element of chance. Provides the dance with the opportunity to bring together elements quickly, and requires focus and concentration. Is instant and simultaneous choreography and performance. [D] The spontaneous use of movement and speech to create a character in a particular situation. [T] Music that is performed spontaneously either melodically or harmonically, alone or in ensemble, without written notation. [M]

Kinesphere The movement space, or the space surrounding the body in stillness and in motion, which includes all directions and levels both close to the body and as far as the person can reach with limbs or torso. [D]

Kinesthetic The sensation of movement or action in the muscles, tendons and joints in response to stimuli while dancing or viewing dance. [D]

Level of Difficulty For purposes of these standards, music is classified into six levels of difficulty:*

Level 1 Very easy. Easy keys, meters and rhythms; limited ranges.
Level 2 Easy. May include changes of tempo, key and meter; modest ranges.
Level 3 Moderately easy. Contains moderate technical demands, expanded ranges and v varied interpretive requirements.
Level 4 Moderately difficult. Requires well-developed technical skills, attention to phrasing and interpretation, and ability to perform various meters and rhythms in a variety of keys.
Level 5 Difficult. Requires advanced technical and interpretive skills; contains key signatures with numerous sharps or flats, unusual meters, complex rhythms, subtle dynamic requirements.
Level 6 Very difficult. Suitable for musically mature students of exceptional competence. [M]

Locomotor Movement Movement that travels from place to place, usually identified by weight transference on the feet. Basic locomotor steps are the walk, run, leap, hop, and jump and the irregular rhythmic combinations of the skip (walk and hop), slide (walk and leap), and gallop (walk and leap). [D]

Major/Minor Key A key or tonality in the major/minor mode
Major The intervals between the scale tones are all whole steps except those between 3-4 and 7-8, which are half steps.
Minor In the natural form the intervals between the scale tones are all whole steps except those between 2-3 and 5-6, which are half steps. The more common melodic form requires a half step between 7-8 ascending, but reverts to the natural form descending. [M]

Meter The grouping in which a succession of rhythmic pulses or beats is organized; indicated by a meter signature at the beginning of a work. [M]

Meter Signature An indicator of the meter of a musical work, usually presented in the form of a fraction; the denominator indicates the unit of measurement (note) and the numerator indicates the number of units (notes) that make up a measure. [M]

MIDI (Musical Instrument Digital Interface) Standard specifications that enable electronic instruments such as the synthesizer, sampler, sequencer and drum machine from any manufacturer to communicate with one another and with computers. [M]

Motivation What a character wants and why. [T]

*****Adapted with permission from the New York State School Music Association (NYSSMA) Manual, Edition XXIII, published by the NYSSMA, 1991

Movement Quality The identifying attributes created by the release, follow-through and termination of energy, which are key to making movement become dance. Typical terms denoting qualities include sustained, swing, percussive, collapse, and vibratory and effort combinations such as float, dab, punch and glide. [D]

Ostinato A short musical pattern that is repeated persistently throughout a composition. [M]

Palindrome A choreographic structure used with a phrase or longer sequence of movement in which the phrase, for example, is first performed proceeding from the first movement to the second movement; when the last movement of the phrase is completed, the phrase is retrograded from the penultimate movement to the first movement. (A commonly used example in prose is "Able was I ere I saw Elba." In this example, the letters are the same forward to the "r" in "ere" as they are backward to that "r.") [D]

Pantomime Originally a Roman entertainment in which a narrative was sung by a chorus while the story was acted out by dancers. Now used loosely to cover any form of presentation, which relies on dance, gesture and physical movement without the use of the voice. [D, T]

Pentatonic A musical scale using only five tones with a minor third between three and four, all other intervals being whole steps. [M]

Perception Sensory awareness, discrimination and integration of impressions, conditions and relationships with regard to objects, images and feelings. [V]

Portfolio collected evidence of a student's progress in the visual arts. [V]

Principles of Design Underlying characteristics in the visual arts and theatrical design, such as reception, balance, emphasis, contrast and unity. [T, V]

Process A complex operation involving a number of methods or techniques (e.g., addition or subtraction processes in sculpture; etching and intaglio processes in printmaking; casting or constructing processes in making jewelry). [V]

Process of Critiquing A strategy which enables a viewer to assess works of art through perceiving, analyzing and discussing its properties and qualities (e.g., Broudy's Aesthetic Scanning, Anderson's Form & Context, the Feldman Approach, the Mittler Approach, and Parsons Model). [V]

Projection A confident presentation of one's body and energy to communicate vividly meaning to an audience. [D, M, T]

Range The whole ascending or descending series of sounds capable of being produced by a voice or instrument. [M The scope or extent of one's abilities in movement, technique, etc. [D, T]

Real Work of Art The original work of art rather than a reproduction. [V]

Rhythmic Acuity The physical expression of auditory recognition of various complex time elements. [D, M]

Role The characteristic and expected social behavior of an individual in a given position (e.g., mother, employer). Role portrayal is likely to be more predictable and one-dimensional than character portrayal (see characterization) and is appropriate for early improvisation exercises. [T]

School A group of artists located in a particular region with common theology. Some examples of schools are the New York School, the Ashcan School, the Hudson River School and the Pont Aven School. [V]

Script The written dialogue, description and directions provided by the playwright. [T]

Space The performance area used by an individual or ensemble. [D, T]
The open place between the lines of the staff. [M] The emptiness or area between, around, above, below, or within objects. [V]

Staff The five parallel horizontal lines and four spaces on which music is written. [M]

Staves Plural of staff. [M]

Style The distinctive or characteristic manner in which the elements of music are treated. In practice, the term may be applied to, for example, composers (the style of Copeland), periods (Baroque style), media (keyboard style), nations (French style), form or type of composition (fugal style, contrapuntal style), or genre (operatic style, bluegrass style). [M] A distinctive manner of moving; the characteristic way dance is done, created or performed that identifies the dance of a particular performer, choreographer or period. [D] The manner in which a play is written or performed (e.g., classical, Shakespearean, grealistic, absurdist). [T] An artist's characteristic manner of expression. Also, works of art by a group of artists with commonalities in their work such as impressionistic, expressionistic, realistic and surrealistic. [V]

Symbol An image, object, sound or movement that stands for or represents something else. [D, M, T, V]

Technical Skills The ability to perform with appropriate timbre, intonation, breath support, articulation, and diction and to play or sing the correct pitches and rhythms. [M]

Techniques Specific methods or approaches used in a larger process (e.g., graduation of value or hue in painting; conveying linear perspective through overlapping, shading, or varying size and color). [V]

Technology Electronic media (e.g., video, computers, compact discs, lasers, audio tape, satellite

equipment) used as tools to create, learn, explain, document, analyze, or present artistic work or information. [D, M, T, V]

Tempo The rate of speed at which a performance or elements of a performance occur. [D. M. T]

Tension The atmosphere created by unresolved, disquieting or inharmonious situations that human beings feel compelled to address. [M, T] A design created by unresolved, disquieting or inharmonious shapes or elements. [V]

Text The basis of dramatic activity and performance; a written script or an agreed-upon structure and content for improvisation. [T] The words or lyrics of a piece of vocal music. [M]

Theatre Literacy The ability to create, perform, perceive, analyze, critique and understand dramatic performances. [T]

Theatre The imitation/representation of life, performed for other people; the performance of dramatic literature, drama; the milieu of actors and playwrights, the place that is the setting for dramatic performances. [T]

Timbre The character or quality of a sound that distinguishes one instrument, voice or other sound source from another. [M]

Tonality The harmonic relationship of tones with respect to a definite center or point of rest; fundamental to much of Western music circa 1600. [M]

Tools Instruments and equipment used by students to create and learn about art, such as brushes, scissors, brayers, easels, knives, kilns and cameras. [V]

Transposition A change in a composition, either in the transcript or the performance, into another key. [M]

Value The significance of an idea to an individual or group.

Visual Arts Problems Specific challenges based on thinking about and using visual arts components. [V]

Warm Up Movements and/or movement phrases designed to raise the core body temperature and bring the mind into focus for the activities to follow. [M, T, D]

Comprehensive Health Standards 1997

Foundations (Grades 1-3)

Comprehensive Health Standards Rationale

Parents and Guardians

It is understood that parents and guardians are the primary educators in their children's health; therefore, it is important to include the applicable statutes and state Board of Education rule in the comprehensive health education standards. Parents and guardians must be provided opportunities to preview school district policies, curriculum and take-home materials.

The ultimate goal of comprehensive health education is to help young people in Arizona achieve their fullest potential by attaining their highest level of health and wellness as students and adults. Basic to health education is the knowledge about the importance of the interrelationships of physical, behavioral, and social well-being and the prevention of diseases and other health problems. Students should learn to accept responsibility for personal health decisions and practices, work with others to maintain a healthy environment, as well as become informed consumers.

Rationale for Standard 1*:* Students comprehend concepts related to health promotion and disease prevention.

Comprehension of health promotion strategies and disease prevention concepts enables students to become health literate, self-directed learners, which establishes a foundation for leading healthy and productive lives.

Rationale for Standard 2: Students demonstrate the ability to access accurate health information.

Accessing valid health information and health promoting products and services is important in the prevention, early detection and treatment of most health problems. Applying skills of information analysis, organization, comparison, synthesis and evaluation to health issues provides a foundation for individuals to move toward becoming health literate and responsible, productive citizens.

Rationale for Standard 3: Students demonstrate the ability to practice health-enhancing behaviors and reduce health risks.

Research confirms that many diseases and injuries can be prevented by reducing harmful and risk-taking behaviors. Accepting responsibility and practicing health-enhancing behaviors can contribute to a positive quality of life.

Rationale for Standard 4: Students analyze the influence of culture, media, technology and other factors on health.

Health is influenced by a variety of factors that coexist within society. The ability to analyze, evaluate and interpret the influence of culture, media and technology on health is important in a rapidly changing world. The health literate, responsible and productive citizen draws upon the contributions of these factors to strengthen individual, family and community health.

Rationale for Standard 5: Students demonstrate the ability to use interpersonal skills to enhance health.

Personal, family and community health are enhanced through effective communication. The ability to organize and to convey information, beliefs, opinions, and feelings (both verbal and nonverbal) are skills that strengthen interactions and can reduce or avoid conflict. When communicating, individuals who are health literate demonstrate care, consideration, and respect for self and others.

Rationale for Standard 6: Students demonstrate the ability to use goal setting and decision-making skills to enhance health.

Decision-making and goal setting are essential lifelong skills needed to implement and sustain health-enhancing behaviors. These skills make it possible for individuals to transfer health knowledge into healthy lifestyles, thus improving the quality of life.

Rationale for Standard 7: Students demonstrate the ability to advocate for personal, family and community health.

Quality of life is dependent on an environment that protects and promotes the health of individuals, families and communities. Responsible citizens who are health literate communicate and advocate for positive health in their communities.

§ 15-102. Parental involvement in the school; definition

A. The governing board, in consultation with parents, teachers and administrators, shall develop and adopt a policy to promote the involvement of parents and guardians of children enrolled in the schools within the school district, including:
    1. A plan for parent participation in the schools which is designed to improve parent and teacher cooperation in such areas as homework, attendance and discipline.
    2. Procedures by which parents may learn about the course of study for their children and review learning materials.
    3. Procedures by which parents who object to any learning material or activity on the basis that it is harmful may withdraw their children from the activity or from the class or program in which the material is used. Objection to a learning material or activity on the basis that it is harmful includes objection to a material or activity because it questions beliefs or practices in sex, morality or religion.
B. The policy adopted by the governing board pursuant to this section may also include the following components:

1. A plan by which parents will be made aware of the district's parental involvement policy and the provisions of this section, including:
   (a) Rights under the family educational rights and privacy act of 1974 relating to access to children's official records.
   (b) The parent's right to inspect the school district policies and curriculum.
2. Efforts to encourage the development of parenting skills.
3. The communication to parents of techniques designed to assist the child's learning experience in the home.
4. Efforts to encourage access to community and support services for children and families.
5. The promotion of communication between the school and parents concerning school programs and the academic progress of the parents' children.
6. Identifying opportunities for parents to participate in and support classroom instruction at the school.
7. Efforts to, with appropriate training, support parents as shared decision makers and to encourage membership on school councils.
8. The recognition of the diversity of parents and the development of guidelines that promote widespread parental participation and involvement in the school at various levels.
9. The development of preparation programs and specialized courses for certificated employees and administrators that promote parental involvement.
10. The development of strategies and programmatic structures at schools to encourage and enable parents to participate actively in their children's education.

C. For the purposes of this section, "parent" means the parent or person who has custody of the child.

R7-2-303. Sex Education

A. Instruction in sex education in the public schools of Arizona shall be offered only in conformity with the following requirements.

1. Common schools: Nature of instruction; approval; format.
   a. Supplemental/elective nature of instruction. The common schools of Arizona may provide a specific elective lesson or lessons concerning sex education as a supplement to the health course study.
      i. This supplement may only be taken by the student at the written request of the student's parent or guardian.
      ii. Alternative elective lessons from the state-adopted optional subjects shall be provided for students who do not enroll in elective sex education.
      iii. Elective sex education lessons shall not exceed the equivalent of one class period per day for one-eighth of the school year for grades K-4.
      iv. Elective sex education lessons shall not exceed the equivalent of one class period per day for one-quarter of the school year for grades 5-8.

   b. Local governing board approval. All elective sex education lessons to be offered shall first be approved by the local governing board.
      i. Each local governing board contemplating the offering of elective sex education

shall establish an advisory committee with membership representative of district size and the racial and ethnic composition of the community to assist in the development of lessons and advise the local governing board on an ongoing basis.

ii. The local governing board shall review the total instruction materials for lessons presented for approval.

iii. The local governing board shall publicize and hold at least two public hearings for the purpose of receiving public input at least one week prior to the local governing board meeting at which the elective sex education lessons will be considered for approval.

iv. The local governing board shall maintain for viewing by the public the total instructional materials to be used in approved elective sex education lessons within the district.

c. Format of instruction.

i. Lessons shall be taught to boys and girls separately.

ii. Lessons shall be ungraded, require no homework, and any evaluation administered for the purpose of self-analysis shall not be retained or recorded by the school or the teacher in any form.

iii. Lessons shall not include tests, psychological inventories, surveys, or examinations containing any questions about the student's or his parents' personal beliefs or practices in sex, family life, morality, values or religion.

2. High Schools: Course offering; approval; format.

a. A course in sex education may be provided in the high schools of Arizona.

b. The local governing board shall review the total instructional materials and approve all lessons in the course of study to be offered in sex education.

c. Lessons shall not include tests, psychological inventories, surveys, or examinations containing any questions about the student's or his parents' personal beliefs or practices in sex, family life, morality, values or religion.

d. Local governing boards shall maintain for viewing by the public the total instructional materials to be used in all sex education courses to be offered in high schools within the district.

3. Content of instruction: Common schools and high schools.

a. All sex education materials and instruction shall be age appropriate, recognize the needs of exceptional students, meet the needs of the district, recognize local community standards and sensitivities, shall not include the teaching of abnormal, deviate, or unusual sexual acts and practices, and shall include the following:

i. Emphasis upon the power of individuals to control their own personal behavior. Pupils shall be encouraged to base their actions on reasoning, self-discipline, sense of responsibility, self-control and ethical considerations such as respect for self and others; and

ii. Instruction on how to say "no" to unwanted sexual advances and to resist negative peer pressure. Pupils shall be taught that it is wrong to take advantage of, or to exploit, another person.

b. All sex education materials and instruction which discuss sexual intercourse shall:
   i. Stress that pupils should abstain from sexual intercourse until they are mature adults;
   ii. Emphasize that abstinence from sexual intercourse is the only method for avoiding pregnancy that is 100 percent effective;
   iii. Stress that sexually transmitted diseases have severe consequences and constitute a serious and widespread public health problem;
   iv. Include a discussion of the possible emotional and psychological consequences of preadolescent and adolescent sexual intercourse and the consequences of preadolescent and adolescent pregnancy;
   v. Promote honor and respect for monogamous heterosexual marriage; and
   vi. Advise pupils of Arizona law pertaining to the financial responsibilities of parenting, and legal liabilities related to sexual intercourse with a minor.

B. Certification of compliance. All districts offering a local governing board-approved sex education course of lesson shall certify, under the notarized signature of both the president of the local governing board and the chief administrator of the school district, compliance with this rule except as specified in paragraph (C). Acknowledgment of receipt of the compliance certification from the state Board of Education is required as a prerequisite to the initiation of instruction. Certification of compliance shall be in a format and with such particulars as shall be specified by the Department of Education.

C. All districts offering state Board approved sex education lessons or courses prior to the effective date of this rule shall comply with this rule on or before June 30, 1990.

§ 15-716. Instruction on acquired immune deficiency syndrome; department assistance

A. Each common, high and unified school district may provide instruction to kindergarten programs through the twelfth grade on acquired immune deficiency syndrome and the human immunodeficiency virus.

B. Each district is free to develop its own course of study for each grade. At a minimum, instruction shall:
   1. Be appropriate to the grade level in which it is offered.
   2. Be medically accurate.
   3. Promote abstinence.
   4. Discourage drug abuse.
   5. Dispel myths regarding transmission of the human immunodeficiency virus.

C. No district shall include in its course of study instruction which:
   1. Promotes a homosexual life-style.
   2. Portrays homosexuality as a positive alternative life-style.
   3. Suggests that some methods of sex are safe methods of homosexual sex.

D. At the request of a school district, the department of health services or the department of education shall review instruction materials to determine their medical accuracy.

E. At the request of a school district, the department of education shall provide the following assistance:
   1. A suggested course of study.
   2. Teacher training

3. A list of available films and other teaching aids.

F. At the request of a parent, a pupil shall be excused from instruction on the acquired immune deficiency syndrome and the human immunodeficiency virus as provided in subsection A of this section. The school district shall notify all parents of their ability to withdraw their child from the instruction.

Physical Activity Standards Rationale

A wealth of information has been accumulated to point to the importance of physical activity in promoting health and wellness. Evidence also indicates that habits (lifestyles) established in youth are likely to influence adult lifestyles and associated health and wellness. Physical activity, a primary risk factor for many chronic health conditions, is an integral part of comprehensive school health education but also must be promoted as an important educational goal. Meeting physical activity standards includes both promotion of physical activity among youth and promotion of lifelong physical activity that will enhance workplace skills, fitness and wellness associated with quality of life. Achieving lifetime physical activity standards results in learning real life skills. Higher order skills include decision-making and problem solving required to become informed, lifetime physical activity consumers.

Rationale for Standard 1: Students demonstrate proficiency and the achievement of higher order cognitive skills necessary to enhance motor skills.

Movement competence implies the development of sufficient ability to enjoy participation in physical activities and re-establish a foundation to facilitate continued motor skill acquisition and increased ability to engage in developmentally appropriate daily physical activities. In addition to achieving competence in a few movement forms, which increases the likelihood of lifetime activity participation, the students apply concepts from exercise science disciplines that will help them achieve independence in developing movement competence in new movement forms. The focus is on movement forms appropriate for lifetime activity involvement and the establishment of personal competence.

Rationale for Standard 2: Students comprehend basic physical activity principles and concepts that enable them to make decisions, solve problems and become self-directed lifelong learners who are informed physical activity consumers.

Accessing accurate physical activity information, products and services is important to become informed, responsible physical activity consumers.

Rationale for Standard 3: Students exhibit a physically active lifestyle.

The intent of this standard is to establish patterns of regular participation in meaningful physical activity. This standard connects what is taught in school with students' choices for physical activity outside of school. Students are more likely to participate in physical activities if they have had opportunities to develop interests that are personally meaningful to them.

Rationale for Standard 4: Students achieve and maintain a health-enhancing level of physical fitness. The intent of this standard is for the student to achieve a health-enhancing level of physical fitness. Students should be encouraged to develop personal fitness levels above those necessary for health-enhancement, based on unique personal needs and interests and necessary for many work situations and active leisure participation. Health-related fitness components

include cardiorespiratory endurance, muscular strength and endurance, flexibility, and body composition. Expectations for students' fitness levels should be established on a personal basis, taking into account variation in entry levels, rather than setting a single standard for all children at a given grade level.

Rationale for Standard 5: Students develop self-initiated behaviors that promote effective personal and social interactions in physical activity settings.

The intent of this standard is achievement of self-initiated behaviors that promote personal and group success in activity settings. Behaviors such as safe practices, adherence to rules and procedures, etiquette, cooperation and teamwork, ethical behavior in sports, and positive social interaction are necessary for all students to develop effective communication skills.

Rationale for Standard 6: Students demonstrate understanding and respect for differences among people in physical activity settings.

The intent of this standard is to develop respect for similarities and differences through positive interaction among participants in physical activity. Similarities and differences include characteristics of culture, ethnicity, motor performance, disabilities, physical characteristics (e.g., strength, size, shape), gender, race and socioeconomic status.

Rationale for Standard 7: Students develop behavioral skills (self-management skills) essential to maintaining a physically active lifestyle.

The intent of this standard is for students to develop an awareness of the intrinsic benefits of participation in lifelong physical activity. Physical activity can provide opportunities for enjoyment, physical fitness and personal challenge.

Table 1. Comprehensive Health Education Standards

STANDARD 1
Students comprehend concepts related to health promotion and disease prevention.
STANDARD 2
Students demonstrate the ability to access accurate health information.
STANDARD 3
Students demonstrate the ability to practice health-enhancing behaviors and reduce health risks.
STANDARD 4
Students analyze the influence of culture, media, technology and other factors on health.
STANDARD 5
Students demonstrate the ability to use interpersonal skills to enhance health.
STANDARD 6
Students demonstrate the ability to use goal setting and decision-making skills to enhance health.
STANDARD 7
Students demonstrate the ability to advocate for personal, family and community health.

Table 2. Physical Activity Standards

STANDARD 1

Students demonstrate proficiency and the achievement of higher order cognitive skills necessary to enhance motor skills.

STANDARD 2

Students comprehend basic physical activity principles and concepts that enable them to make decisions, solve problems and to become self-directed lifelong learners who are informed physical activity consumers.

STANDARD 3

Students exhibit a physically active lifestyle.

STANDARD 4

Students achieve and maintain a health-enhancing level of physical fitness.

STANDARD 5

Students develop self-initiated behaviors that promote effective personal and social interaction in physical activity settings.

STANDARD 6

Students demonstrate understanding and respect for differences among people in physical activity settings.

STUDENT 7

Students develop behavioral skills (self-management skills) essential to maintaining a physically active lifestyle.

ADDENDUM

A Brief Description of Ten Major Content Areas in Comprehensive School Health Education

1. **Community Health** includes topics such as individual responsibility; healthful school, home and community environments; community health resources and facilities; official and nonofficial health agencies; health service careers; pollution control; community involvement; current issues; and trends in medical care.

2. **Consumer Health** addresses health care resources i.e., knowing what is available and how to be an educated consumer.

3. **Environmental Health** addresses individual and community responsibility, pollution, effects of environment on health, environmental protection agencies, population density, world health, waste disposal, sanitation, laws and career choices.

4. **Family Life Education** covers information about family dynamics, building relationships, child abuse, choices about relationships, family planning, parenting skills, sex education, and sexually transmitted diseases such as HIV infection and AIDS.

5. **Injury Prevention and Safety** includes learning about first aid and emergency health care and addresses the prevention of unintentional injuries. (Many schools include violence prevention and homicide as health issues within this content area.)

6. **Mental and Emotional Health** includes building self-esteem, effectively coping with stress, and communication skills, among others.

7. **Nutrition** addresses a balanced diet, food preparation, reading and understanding food labels, differences in nutritional needs for pregnant women, and more.

8. **Personal Health** includes physical fitness and lifetime activities, cardiovascular health, sleep, rest, relaxation, recreation, growth and development, oral health, vision and hearing, body systems and their functions, aging, personal wellness plans, and positive health habits and choices.

9. **Prevention and Control of Disease** addresses heart disease, stroke, diabetes, cancer, HIV/AIDS and others.

10. **Substance Use and Abuse** refers to the use and misuse of tobacco, alcohol, and other drugs and often includes topics such as positive decision-making, individual responsibility, substances beneficial to humankind, the classification of substances and their effects on the body, and the formation of habits and their influence.

The ten major content areas in this addendum are provided to assist local school districts in developing sequential curricula. It will be left to the discretion of the local district to determine the emphasis of each of the content areas. The Comprehensive Health Education and Physical Activity Standards are the required competency indicators, while the addendum is a tool to be used by school districts as a cross-reference.

COMPREHENSIVE HEALTH STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

STANDARD 1

Students comprehend concepts related to health promotion and disease prevention.

- **1CH-F1. Describe relationships between personal health behavior (e.g., sleep, diet, fitness and personal hygiene) and individual well-being**

  PO 1. Explain positive effects of a balanced, healthy lifestyle (e.g., being alert, rested, energetic, healthy)
  PO 2. Explain importance of personal health-promoting behaviors (e.g., covering sneezes and coughs, proper hand washing, adequate sleep, healthy diet, physical activity)

- **1CH-F2. Identify indicators of mental, emotional, social and physical health during childhood**

  PO 1. Describe how feelings affect behavior (e.g., anger, fear, pride, happiness, saddness, frustration)
  PO 2. Recognize the importance of developing friendships
  PO 3. Describe at least three ways to prevent the spread of germs

- **1CH-F3. Describe the basic structure and functions of the human body systems**

  PO 1. Identify the parts of the digestive and circulatory system
  PO 2. Describe the functions of the digestive and circulatory systems

- **1CH-F4. Describe how heredity, family life and individual lifestyle affect personal health**

  PO 1. Explain how hereditary traits are passed on from parents to children (e.g., high blood pressure, diabetes, poor eyesight)
  PO 2. Explain how eating/activity habits effect lifestyle

- **1CH-F5. Describe how environmental health and personal health are related**

  PO 1. Show relationships of behavior to environment (e.g., weather and appropriate dress, pollen and allergies/asthma, pollution and respiration, pollution and skin)

- **1CH-F6. Identify health problems that should be detected and treated early and the reasons why**

  PO 1. Describe health problems and early detection
  PO 2. Describe the benefits of early treatment

- **1CH-F7. Identify the characteristics, causes, prevention and treatment of common childhood injuries and illnesses**

  PO 1. List common childhood illnesses, their causes and prevention
  PO 2. List common childhood injuries, their causes, prevention and treatment
  PO 3. Illustrate ways to keep germs from spreading
  PO 4. Illustrate ways to prevent injuries

STANDARD 2

Students demonstrate the ability to access accurate health information.

- **2CH-F1. Identify characteristics of accurate health information (e.g., research-based, current) and health promoting products (e.g., weight scales, thermometers, eye glasses) and services (e.g., school meal program, school nurse, after school activities)**

  PO 1. List sources of accurate/reliable health information
  PO 2. List health promoting products
  PO 3. Name health promoting services that contribute to health

- **2CH-F2. Demonstrate the ability to locate resources from home, school and community that provide accurate health information**

  PO 1. Describe health/emergency agencies that provide services (e.g., community health agencies, schools, poison control centers, Web sites)

- **2CH-F3. Explain how media influences the selection and use of health information, products and services**

  PO 1. Describe how advertisement affects choices
  PO 2. Identify ways media (movies) influence health decisions

- **2CH-F4. Demonstrate the ability to locate home and school health helpers**

  PO 1. Convey how to access appropriate health/emergency services

- **2CH-F5. Locate and describe the roles of resources (health workers and organizations) from the school and community**

  PO 1. State appropriate agencies to contact
  PO 2. Identify resources (e.g., parents, health department, fire department)

- **2CH-F6. Describe the consequences of appropriate and inappropriate use of drugs and medicine**

  PO 1. Identify safe practices of taking medicine and storing it properly
  PO 2. Identify the harmful affects of inappropriate use of drugs and medicine

- **2CH-F7. Identify when and how to seek emergency medical assistance and shelter**

  PO 1. Demonstrate how to contact parents and/or emergency services in emergency situations
  PO 2. Recall emergency numbers

STANDARD 3

Students demonstrate the ability to practice health-enhancing behaviors and reduce health risks.

- **3CH-F1. Identify responsible health behaviors and compare them to risky/harmful behaviors (e.g., responsible: tooth brushing, exercise, sleep, nutrition; risky: the use of tobacco, alcohol and other drugs)**

  PO 1. Discuss responsible health behavior vs. risky or harmful behaviors

- **3CH-F2. Identify personal health needs and strategies to maintain or improve one's well-being**

  PO 1. Discuss good health habits
  PO 2. Discuss ways to promote and maintain good health habits
  PO 3. Establish a plan for personal health standards

- **3CH-F3. Identify hazards found in the home, school and community and demonstrate ways to avoid or reduce the threats**

  PO 1. List hazards found in the home, school, and community
  PO 2. Discuss ways to avoid and/or reduce the threats

- **3CH-F4. Apply skills to manage stress**

  PO 1. Identify causes of stress
  PO 2. Describe ways to reduce stress

- **3CH-F5. Demonstrate first aid procedures and appropriate responses to common emergencies in the home, school and community**

  PO 1. Describe a minimum of three first aid procedures
  PO 2. Determine correct response in case of accident or sudden illness

STANDARD 4

Students analyze the influence of culture, media, technology and other factors on health.

- **4CH-F1. Describe personal health behaviors (e.g., nutrition, exercise) in a variety of cultures**

  PO 1. Demonstrate awareness of individual and ethnic variation of food choices and exercise

- **4CH-F2. Explain how the media influence health behaviors**

  PO 1. Describe how advertising influences health behavior
  PO 2. Describe how movies and cartoons influence health behavior

- **4CH-F3. Describe ways technology can influence personal health**

  PO 1. Explain how technology has influenced personal health (e.g., 911 system, X-rays, blood pressure cuffs, thermometers)

- **4CH-F4. Explain how information from school and family influences health**

  PO 1. Same as concept

STANDARD 5

Students demonstrate the ability to use interpersonal skills to enhance health.

- **5CH-F1. Distinguish between verbal and nonverbal communication**

  PO 1. Describe differences between nonverbal and verbal communication

- **5CH-F2. Describe characteristics needed to be a responsible friend and family member**

  PO 1. Explain what it means to care and be a friend
  PO 2. List characteristics needed to be responsible

- **5CH-F3. Describe ways to communicate care, consideration, and respect of self and others**

  PO 1. Explain how one communicates feelings (nonverbal and verbal)
  PO 2. Show use of effective "I" messages

- **5CH-F4. Demonstrate healthy ways to express needs, wants and feelings, and identify a variety of ways to deal with them constructively and appropriately**

  PO 1. Resolve conflict in socially acceptable ways
  PO 2. Formulate self-esteem building skills

- **5CH-F5. Demonstrate attentive listening skills to build and maintain healthy relationships**

  PO 1. Explain characteristics of attentive listening
  PO 2. Illustrate effective listening skills

- **5CH-F6. Describe refusal skills to enhance mental, emotional and physical health**

  PO 1. Explain how refusal skills enhance mental, emotional and physical health
  PO 2. Practice positive behavior towards others

- **5CH-F7. Identify negative and positive behaviors exhibited in conflict situations and strategies for mediating and resolving the conflict**

  PO 1. List negative and positive behaviors exhibited in conflict situations and strategies for mediating and resolving the conflict
  PO 2. Explain the difference between negative and positive behaviors exhibited in conflict situations and strategies for mediating and resolving the conflict

STANDARD 6

Students demonstrate the ability to use goal setting and decision-making skills to enhance health.

- **6CH-F1. Apply a sound decision-making process to resolve health issues and problems**

  PO 1. Explain positive strategies to resolve problems
  PO 2. Describe positive strategies to resolve health issues
  PO 3. Demonstrate positive decision-making to resolve a health issue or problem

- **6CH-F2. Explain the effects of personal health care choices**

  PO 1. Identify the effects of personal health choices (positive and negative)

- **6CH-F3. Set a personal health goal and track progress toward its achievement**

  PO 1. List a personal health goal
  PO 2. Chart progress toward achievement

STANDARD 7

Students demonstrate the ability to advocate for personal, family and community health.

- **7CH-F1. Describe a variety of methods to convey accurate health information and ideas**

  PO 1. Same as concept

- **7CH-F2. Collect information about health issues**

  PO 1. State health issues (safety, personal care, disease prevention, substance abuse prevention, nutrition, emotional and family life)

- **7CH-F3. List a variety of ways to support others in making positive health choices (e.g., exercising, making healthy food choices, hand washing)**

  PO 1. Same as concept

PHYSICAL ACTIVITY STANDARDS

STANDARD 1

Students demonstrate proficiency and the achievement of higher order cognitive skills necessary to enhance motor skills.

- **1PA-F1. Demonstrate mature form in all locomotor patterns and selected manipulative and nonlocomotor skills**

  PO 1. Perform all eight locomotor skills with mature form (walk, run, hop, jump, skip, slide, gallop and leap)
  PO 2. Perform four manipulative skills with mature form
  PO 3. Perform four nonlocomotor skills with mature form
  PO 4. Perform movement skills to a rhythm

- **1PA-F2. Adapt a skill area (e.g., dribbling, passing, dance sequence) to the demands of a game-like situation**

  PO 1. Demonstrate the ability to adapt movement skills to changing environmental conditions and expectations (e.g., partner needs for force production, tossing a ball to a moving partner, rising and sinking while twisting, using different rhythms)
  PO 2. Combine a variety of physical activities (e.g., various travel patterns in relation to music, locomotor and nonlocomotor combinations)

- **1PA-F3. Demonstrate beginning skills of a few specialized movement forms**

  PO 1. Dribble and pass a variety of objects to self and around stationary objects (hands, feet and equipment)
  PO 2. Throw and kick using mature form
  PO 3. Strike a ball repeatedly with hand or object
  PO 4. Toss and catch a ball alone or with a partner

- **1PA-F4. Combine movement skills in applied settings**

  PO 1. Demonstrate control in traveling activities, weight bearing, and balance activities on a variety of body parts
  PO 2. Demonstrate skills of chasing, fleeing, dodging to avoid others

- **1PA-F5. Apply critical elements to improve personal performance in fundamental and selected specialized movement skills**

  PO 1. Demonstrate critical elements of a fundamental skill (e.g., throwing, kicking, striking)
  PO 2. Use concepts of space, effort, and relationships that vary the quality of movement

- **1PA-F6. Use critical elements of fundamental and specialized movement skills to provide feedback to others**

  PO 1. Use feedback to improve personal performance
  PO 2. Recognize the critical elements of a fundamental movement or skill performed by a fellow student and provide feedback to that student

- **1PA-F7. Apply concepts that impact the quality of increasingly complex movement performance (e.g., maintaining a wide base of support in a balance activity)**

  PO 1. Understand that appropriate practice improves performance (e.g., a ball must be passed in front of a moving player; the lower the center of gravity, the more stable an object)

STANDARD 2

Students comprehend basic physical activity principles and concepts that enable them to make decisions, solve problems and to become self-directed lifelong learners who are informed physical activity consumers.

- **2PA-F1. Identify several activities related to each component of health-related physical fitness**

  PO 1. Identify the components of health-related physical fitness (i.e., cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, body composition)
  PO 2. Identify and demonstrate several activities related to each component of physical fitness

- **2PA-F2. Explain that muscles produce movement and begin to identify muscles**

  PO 1. Name and locate large muscle groups
  PO 2. Demonstrate activities that utilize specific muscle groups

- **2PA-F3. Demonstrate how to perform physical fitness tests**

  PO 1. Demonstrate correct form when performing physical fitness activities

STANDARD 3

Students exhibit a physically active lifestyle.

- **3PA-F1. Select and participate regularly in physical activities for the purpose of improving skill and health**

  PO 1. Participate regularly in physical activity for the purpose of improving skill performance
  PO 2. Participate regularly in physical activity for the purpose of developing a healthy lifestyle

- **3PA-F2. Identify the benefits derived from regular physical activity**

  PO 1. Describe health benefits that result from regular and appropriate participation in physical activity
  PO 2. Identify benefits of at least one activity they regularly participate in

- **3PA-F3. Identify several moderate to vigorous physical activities that provide personal pleasure**

  PO 1. Same as concept

STANDARD 4

Students achieve and maintain a health-enhancing level of physical fitness.

- **4PA-F1. Accomplish the health-related fitness standards as defined by Fitnessgram**

  PO 1. Identify the components of health-related physical fitness, (i.e., cardiorespiratory endurance, muscular strength, muscular endurance, flexibility, body composition)
  PO 2. Identify and demonstrate several activities related to each component of physical fitness

- **4PA-F2. Participate regularly in physical activity for the purpose of improving physical fitness (goal setting)**

  PO 1. Engage in appropriate physical activity that results in the improvement of health-related physical fitness

STANDARD 5

Students develop self-initiated behaviors that promote effective personal and social interactions in physical activity settings.

- **5PA-F1. Follow, with few reminders, activity-specific rules, procedures and etiquette**

  PO 1. Respond positively to an occasional reminder about a rule/infraction
  PO 2. Use expected behaviors in physical activity settings

- **5PA-F2. Utilize safety principles in activity situations**

  PO 1. Stop activity immediately at the signal to do so
  PO 2. Demonstrate and use equipment safely and responsibly
  PO 3. Use the rules of physical education on the playground

- **5PA-F3. Work cooperatively and productively with a partner or small group**

  PO 1. Use respect during all physical activity
  PO 2. Work cooperatively with another to complete an assigned task

- **5PA-F4. Work independently and on-task for short periods of time**

  PO 1. Demonstrate specific teacher-directed skills until a signal is given to end task
  PO 2. Demonstrate the ability to share equipment with other students before repeating a turn

- **5PA-F5. Interact with peers while participating in group activities**

  PO 1. Treat others with respect during physical activity
  PO 2. Resolve conflicts in socially acceptable ways

STANDARD 6

Students demonstrate understanding and respect for differences among people in physical activity settings.

- **6PA-F1. Participate in multicultural physical activities**

  PO 1. Identify one's own cultural/ethnic roots
  PO 2. Apply variations in activities and games enjoyed in classmates' homes and neighborhoods

- **6PA-F2. Explain the attributes that individuals with differences can bring to group activities**

  PO 1. Display consideration of others' abilities in physical activity settings

- **6PA-F3. Describe differences and similarities among the activities of a variety of national, cultural and ethnic backgrounds**

  PO 1. Share with peers an activity, dance or game in which he/she has participated with family or friends

STANDARD 7

Students develop behavioral skills (self-management skills) essential to maintaining a physically active lifestyle.

- **7PA-F1. Practice activities to increase skill and fitness competence (goal setting)**

  PO 1. Select activities that are personally challenging and rewarding
  PO 2. Explain how repeated practice will lead to skill and fitness success
  PO 3. Explain how gained competence provides increased enjoyment in movement and fitness activities

- **7PA-F2. Associate results of fitness testing to personal health status and ability to perform various activities**

  PO 1. Same as concept

Foreign and Native Language Standards 1997

Foundations (Grades 1-3)

Foreign and Native Language* Standards Rationale

Today's students prepare for the tomorrow in which they will need to function in varied contexts. The constant shrinking of the globe will expand their experience beyond that of previous generations to include contacts with other languages and cultures, both in their private lives and in their work. Languages are increasingly demanded in a wide range of professions. To succeed, students will need new tools, many of which are available primarily, if not solely, through the study of other languages. They include:

- ***the ability to communicate well for varied purposes.*** In other languages, as well as in English, effective communication requires an understanding of both the target language and culture under study and one's own, which implies the ability to interact confidently within many arenas, including the workplace and communities where the language is spoken.

- ***a solid foundation in basic subject matter and skills.*** All core subjects must contribute to this end, in an integrated fashion, to aid students in realizing the connections among the parts of their education. Basic subject matter includes the development of verbal reasoning, and listening skills and knowledge of the great achievements of human cultures, e.g., artistic, literary, scientific. The study of another language has been shown to enhance student performance in other academic fields. Learnings from other fields can also be reinforced in the foreign language classroom.

- ***an understanding and appreciation of the diversity of languages and cultures, including one's own.*** These tools aid students to function as responsible, informed, and confident citizens and enhance their personal development. They allow the finding of one's own place in the wider world.

Introduction to the Foreign Language Standards

The foreign language standards state what students need to know about languages and cultures, including their own; what students need to be able to do; and how this knowledge and these abilities relate to the subject matter of other core areas. The standards are stated clearly and in measurable terms:

- what students need to **know** in order to function successfully as they enter a new millennium that promises major changes in communications and contacts with other languages and cultures;

- what students need to be able to **do**. Knowing about a language and its culture(s), while essential, is not sufficient; students will develop skills for functioning effectively in varied contexts; and

*The Foreign Language Standards name was changed 10/22/01 to Foreign and Native Language by the state Board of Education.

- the integration of foreign languages into the rest of the curriculum so that the connections are clear and so that learning in all areas is facilitated, including the development of a deeper understanding of one's own language and culture. The five strands under which the standards are organized–Communication, Culture, Connections, Comparisons and Communities–are meant to be interwoven among themselves as well, rather than taught as separate entities. Meeting the standards for each one will contribute to reaching the standards of the others.

These standards for foreign language study are highly challenging for all students. They assume an extended sequence of learning throughout the students' school career, thus reflecting the likely nature of schools in the future. Meeting these standards will require the study of grammar–the forms and structures of the language–as well as effective learning strategies. Students will also need to use technologies that will bring the language and the culture to them in new ways and enhance their opportunities to learn.

In these standards we refer to "the target language," which may stand for "world language," "foreign language," "second language," or "heritage language" (i.e., the language that is the predominant language in the home).

Descriptions of Language Abilities for Each Level

Readiness

Students use basic vocabulary related to people, places, things and actions close to their own lives. They express themselves in phrases, short sentences and memorized material. Their language is characterized by an emerging control of the most common basic grammatical forms and structures. Because comprehension of oral and written language normally exceeds production, students are able to comprehend simple descriptions, narratives, and authentic materials such as advertisements, on topics studied in class. Pronunciation and fluency are such that students often might not be understood by native speakers. They are able to write accurately what they can say.

Foundations

Students speak and write extemporaneously using short sentences and sentence strings in present tense on topics within their experience with the language. They can describe, ask and answer questions; engage in simple conversations; and carry out simple realistic functions such as ordering a meal, buying something, or introducing themselves or others to a group. Since their knowledge of the forms and structures of the language has grown rapidly but their practice has been limited, their speech is likely to contain numerous linguistic errors. Students are comprehensible to sympathetic listeners who have experience with non-native speakers of their language. Their written language still mirrors their oral language, although they may be able to express more ideas more accurately in writing, given time to reflect, review and revise.

Essentials

Students speak with somewhat longer utterances and begin to display an ability to connect phrases and sentences to show relations between ideas expressed. Although patterns of errors are still common, students now speak and write extemporaneously in past, present and future time, using vocabulary related to their own lives and interests. Accent and intonation are generally accurate, although pauses and false starts may be common, as students give simple instructions and directions, make comparisons, solve problems together, and engage in conversations on a range of topics including leisure activities, professions and current events. In written work, students' spelling and punctuation are mostly accurate; and they organize their ideas well.

Proficiency

Students use paragraph-length connected discourse to narrate, describe, and discuss ideas and opinions. On topics of interest to them and within their experience, they show few patterns of linguistic errors, they are generally comprehensible to native speakers of the language, and their vocabulary is sufficient to avoid awkward pauses. They are able to circumvent linguistic gaps or lapses by "finding another way to say it." Given time to reflect and revise, they are able to express their ideas completely and interestingly in writing, with generally accurate grammar, vocabulary, spelling, accents and punctuation. They comprehend most authentic expository and fictional material produced for contemporary native speakers.

Distinction

Students show almost no patterns of linguistic errors and are able to carry out almost any task that they can execute in English, albeit with less fluency and control or breadth of vocabulary and grammar. They can argue a point effectively and extemporaneously, explaining their point of view in detail. In writing, their ideas are well organized and clearly, completely, and interestingly presented, with accurate use of the language's writing system. They can comprehend any non-technical material produced for the general public of native speakers in the standard language.

Table 1. Foreign and Native Language Standards

***STANDARD 1*: Communication**

Students understand and interpret written and spoken communication on a variety of topics in the target language

***STANDARD 2*: Communication**

Students engage in oral and written exchanges which include providing and obtaining information, expressing feelings and preferences, and exchanging ideas and opinions in the target language.

***STANDARD 3*: Communication**

Students present information and ideas in the target language on a variety of topics to listeners and readers.

***STANDARD 4*: Culture**

Students know "what to do when" and "what to say while doing it" in the culture and use this knowledge to interact appropriately. They also understand the relationships between cultural perspectives, products and practices within cultures.

***STANDARD 5*: Connections**

Students use the target language and authentic sources to reinforce and/or learn other content from the other subject areas.

***STANDARD 6*: Comparisons**

Students develop insights into their own language and their own culture through the study of the target language.

***STANDARD 7*: Communities**

Students use the target language within and beyond the school setting.

FOREIGN AND NATIVE LANGUAGE STANDARDS

STANDARD 1: COMMUNICATION

Students understand and interpret written and spoken communication on a variety of topics in the target language.

FOUNDATIONS (Grades 1-3)

- **1FL-F1. Comprehend and interpret a brief narrative or poem**
- **1FL-F2. Comprehend brief written messages and short personal notes**
- **1FL-F3. Comprehend simple recorded material**
- **1FL-F4. Follow simple written instructions**
- **1FL-F5. Identify parts of a short story, e.g., climax, main idea, conflict**
- **1FL-F6. Comprehend the main ideas or themes and identify and describe the main characters in selected literary texts**

STANDARD 2: COMMUNICATION

Students engage in oral and written exchanges which include providing and obtaining information, expressing feelings and preferences, and exchanging ideas and opinions in the target language.

FOUNDATIONS (Grades 1-3)

- **2FL-F1. Express feelings**
- **2FL-F2. Give and follow directions to carry out a specific task and ask questions for clarification**
- **2FL-F3. Exchange information about personal events and memorable experiences**
- **2FL-F4. State opinions about objects, people and events present in their everyday lives**
- **2FL-F5. Acquire goods or information through interaction**

STANDARD 3: COMMUNICATION

Students present information and ideas in the target language on a variety of topics to listeners and readers.

FOUNDATIONS (Grades 1-3)

- **3FL-F1. Perform short plays, poems and songs**
- **3FL-F2. Write or orally present brief messages that provide information**
- **3FL-F3. Present basic (biographical) information about self or others in front of a group**
- **3FL-F4. Read and recite short poems with appropriate expression and rhythm**
- **3FL-F5. Share their interpretations, reactions and feelings about a piece of literature**

STANDARD 4: CULTURE

Students know "what to do when" and "what to say while doing it" in the culture and use this knowledge to interact appropriately. They also understand the relationships between cultural perspectives, products and practices within cultures.

FOUNDATIONS (Grades 1-3)

- **4FL-F1. Identify and discuss (in English, if necessary) typical behaviors from the target culture in a variety of specific settings**
- **4FL-F2. Identify on a map the countries where the target language is spoken and the major cities and geographical features**
- **4FL-F3. Use culturally appropriate language and behaviors in basic school and social situations**
- **4FL-F4. Interpret cultural messages expressed in signs, symbols, advertisements, etc., in the target language**

STANDARD 5: CONNECTIONS

Students use the target language and authentic sources to reinforce and/or learn other content from the other subject areas.

FOUNDATIONS (Grades 1-3)

- **5FL-F1. Discuss topics in other school subjects in the target language including geographical terms, historical facts, mathematical terms and problems, and scientific information**

- **5FL-F2. Comprehend articles or short videos in the target language on topics being studied in other classes**

STANDARD 6: COMPARISONS

Students develop insights into their own language and their own culture through the study of the target language.

FOUNDATIONS (Grades 1-3)

- **6FL-F1. Identify and compare (in English, if necessary) cultural perspectives of people in both their own culture and the culture being studied relating to family, school, work and play**

- **6FL-F2. Recognize (in English, if necessary) the process of word/idea borrowing from one language by another**

- **6FL-F3. Distinguish between the sound system and the writing system of the target language and the same elements in their own language**

- **6FL-F4. Compare appropriate gestures in the target language and culture studied to their own**

STANDARD 7: COMMUNITIES

Students use the target language within and beyond the school setting.

FOUNDATIONS (Grades 1-3)

- **7FL-F1. Use the library to select books, magazines, CDs, etc., in the target language; share their content with others**

- **7FL-F2. Identify people in the community who use the target language in their work; invite them to share information with the class and ask the questions**

- **7FL-F3. Create original materials (e.g., short stories, poems, crafts) to exchange with classes in other communities or countries**

- **7FL-F4. Present information to others (in English, if necessary) about the target language and culture**

Reading Standard Articulated by Grade Level 2003

Grade 3

READING STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Strand 1: Reading Process

Reading Process consists of the five critical components of reading, which are Phonemic Awareness, Phonics, Fluency, Vocabulary and Comprehension of connected text. These elements support each other and are woven together to build a solid foundation of linguistic understanding for the reader.

Concept 1: Print Concepts

Demonstrate understanding of print concepts.

PO 1. Alphabetize a series of words to the third letter.

PO2. Recognize the distinguishing features of a paragraph (e.g., indentation of first word, topic sentence, supporting sentences, concluding sentences).

Concept 2: Phonemic Awareness

Identify and manipulate the sounds of speech.

(Grades K-2)

Concept 3: Phonics

Decode words, using knowledge of phonics, syllabication, and word parts.

PO 1. Read multi- syllabic words fluently, using letter-sound knowledge.

PO 2. Apply knowledge of basic syllabication rules when decoding four- or five-syllable written words (e.g., in/for/ma/tion, mul/ti/pli/ca/tion, pep/per/o/ni).

PO 3. Apply knowledge of the following common spelling patterns to read words:

- that drop the final e and add endings such as: –ing, -ed, or –able (e.g., use/using/used/usable)
- with final consonants that need to be doubled when adding an ending (e.g., hop/hopping)
- that require changing the final y to i (e.g., baby/babies)
- that end in –tion, -sion, (e.g., election, vision)
- with complex word families (e.g., -ight, -ought); and
- that include common prefixes, suffixes and root words.

PO 4. *Read common abbreviations* (e.g., *Wed., Sept.) fluently*.

PO 5. Recognize high frequency words and irregular sight words.

PO 6. Use knowledge of word order (syntax) and context to confirm decoding.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex reading selections.

READING STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 4: Vocabulary

Acquire and use new vocabulary in relevant contexts.

PO 1. Use knowledge of prefixes to (e.g., un-, re-, in-, dis-) to determine the meaning of words.

PO 2. Use knowledge of suffixes (e.g., -ful, -ly, -less) to determine the meaning of words.

PO 3. Recognize words represented by common abbreviations (e.g., Mr. Ave., Oct.).

PO 4. Identify the words that comprise a contraction (e.g., can't=can not, it's=it is, aren't=are not).

PO 5. Determine the meaning of compound words, using knowledge of individual words (e.g., lunchtime, daydream, everyday).

PO 6. Determine the meaning of common synonyms, antonyms, and homonyms.

PO 7. Determine the meanings and other features of words (e.g., pronunciation, syllabication, synonyms, parts of speech) using the dictionary, thesaurus, and CD-ROM and Internet when available.

Concept 5: Fluency

Read fluently.

PO 1. *Consistently read grade level text with at least 90 percent accuracy.*

PO 2. Read aloud from familiar prose and poetry with fluency and appropriate rhythm, pacing, intonation, and vocal patterns.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex reading selections.

READING STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 6: Comprehension Strategies

Employ strategies to comprehend text.

PO 1. Predict events and actions, based upon prior knowledge and text features.

PO2. Compare a prediction about an action or event to what actually occurred within a text.

PO 3. *Ask relevant questions in order to comprehend text.*

PO 4. Answer clarifying questions in order to comprehend text.

PO 5. Extract information from graphic organizers (e.g., webs, Venn diagrams, flow charts) to comprehend text.

PO 6. Connect information and events in text to experience and to related text and sources.

Strand 2: Comprehending Literary Text

Comprehending Literary Text identifies the comprehension strategies that are specific in the study of a variety of literature.

Concept 1: Elements of Literature

Identify, analyze, and apply knowledge of the structures and elements of literature.

PO 1. Compare (and contrast) literary elements across stories, including plots, settings, and characters.

PO 2. Describe characters (e.g., traits, roles, similarities) within a literary selection.

PO 3. Sequence a series of events in a literary selection.

PO 4. Make relevant connections (e.g., relationships, cause/effect, comparisons) between earlier events and later events in text.

PO 5. Identify the speaker or narrator in a literary selection.

PO 6. Identify rhyme, rhythm, repetition, and sensory images in poetry.

PO 7. Distinguish between/among fiction, nonfiction, poetry, plays, and narratives, using knowledge of their structural elements.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex reading selections.

READING STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 2: Historical and Cultural Aspects of Literature

Recognize and apply knowledge of the historical and cultural aspects of American, British, and world literature.

PO 1. Compare events, characters and conflicts in literary selections from a variety of cultures to their experiences.

Strand 3: Comprehending Informational Text

Comprehending Informational Text delineates specific and unique skills that are required to understand the wide array of informational text that is a part of our day-to-day experiences.

Concept 1: Expository Text

Identify, analyze, and apply knowledge of the purpose, structures, and elements of expository text.

PO 1. Identify the main idea and supporting details in expository text.

PO 2. Locate facts in response to questions about expository text.

PO 3. Locate specific information by using organizational features (e.g., title, table of contents, headings, captions, bold print, key words, glossary, indices, italics, key words) in expository text. (Connected to Research Strand in Writing)

PO 4. Use a variety of sources (e.g., trade books, encyclopedias, magazines, atlases, almanacs, electronic source, textbooks) to answer specific questions, and/or gather information. (Connected to Research Strand in Writing)

PO 5. Interpret information from graphic features (e.g., charts, maps, diagrams, illustrations, tables, timelines) of expository text. (Connected to Research Strand in Writing)

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex reading selections.

READING STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 2: Functional Text

Identify, analyze, and apply knowledge of the purpose, structures, clarity, and relevancy of functional text.

PO 1. *Follow a set of written multi-step directions.*

PO 2. Provide multi-step directions.

PO 3. Evaluate written directions for sequence and completeness.

PO 4. Interpret information in functional documents (e.g., maps, schedules, pamphlets) for a specific purpose.

Concept 3: Persuasive Text

Explain basic elements of argument in text and their relationship to the author's purpose and use of persuasive strategies.

PO 1. Distinguish fact from opinion in persuasive text (e.g., advertisements, product labels, written communications).

PO 2. Identify persuasive vocabulary (e.g., emotional words) used to influence readers' perspectives.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex reading selections.

Writing Standard Articulated by Grade Level 2004

Grade 3

Writing Standard Articulated by Grade Level

Grade 3

Strand 1: Writing Process

Research has established the major steps of the writing process. These steps are identified in the five concepts of this strand, each supported with specific performance objectives. While all steps are needed and used by effective writers as they compose text, different skills may be emphasized in individual assignments. These steps may be used recursively as a piece moves toward completion. Throughout the process, students should reflect on their own writing skills, set goals, and evaluate their own progress.

Concept 1: Prewriting Prewriting includes using strategies to generate, plan, and organize ideas for specific purposes.
PO 1. Generate ideas through a variety of activities (e.g., brainstorming, graphic organizers, drawing, writer's notebook, group discussion, printed material).
PO 2. Determine the purpose (e.g., to entertain, to inform, to communicate, to persuade) of a writing piece.
PO 3. Determine the intended audience of a writing piece.
*PO 4. Use organizational strategies (e.g., **graphic organizer**, **KWL chart**, logs) to plan writing.*
PO 5. Maintain a record (e.g., lists, pictures, journals, folders, notebooks) of writing ideas.
PO 6. Use **time management strategies**, when appropriate, to produce a writing product within a set time period.

Concept 2: Drafting Drafting incorporates prewriting activities to create a first draft containing necessary elements for a specific purpose.
PO 1. Use a **prewriting plan** to develop a draft with **main idea**(s) and supporting details.
PO 2. Organize writing into a logical sequence that is clear to the audience.

Concept 3: Revising Revising includes evaluating and refining the rough draft for clarity and effectiveness. (Ask: Does this draft say what you want it to say?)
PO 1. Evaluate the draft for use of ideas and content, organization, voice, word choice, and sentence fluency. (See Strand 2)
PO 2. Add details to the draft to more effectively accomplish the purpose.
PO 3. Rearrange words, sentences, and paragraphs to clarify the meaning of the draft.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Writing Standard Articulated by Grade Level

Grade 3

PO 4. Use a combination of sentence structures (i.e., **simple**, **compound**) to improve sentence fluency in the draft.
PO 5. Modify word choice appropriate to the application in order to enhance the writing.
PO 6. Apply appropriate tools or strategies (e.g., **peer review**, checklists, **rubrics**) to refine the draft.
PO 7. Use resources and reference materials to select more precise vocabulary.

Concept 4: Editing Editing includes proofreading and correcting the draft for conventions.
PO 1. Identify punctuation, spelling, and grammar and usage errors in the draft. (See Strand 2)
PO 2. Use resources (e.g., dictionary, word lists, spelling/grammar checkers) to correct conventions.
PO 3. Apply **proofreading marks** to indicate errors in conventions, although may be inconsistent or experimental.
PO 4. Apply appropriate tools or strategies (e.g., **peer review**, checklists, **rubrics**) to edit the draft.

Concept 5: Publishing Publishing includes formatting and presenting a final product for the intended audience.
PO 1. Prepare writing in a format (e.g., oral presentation, manuscript, multimedia) appropriate to audience and purpose.
PO 2. Share the writing with the intended audience.
PO 3. Use margins and spacing to enhance the final product.
PO 4. Write legibly.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
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Writing Standard Articulated by Grade Level

Grade 3

Strand 2: Writing Elements

Strand 2 focuses on the elements of effective writing. Good writing instruction incorporates multiple performance objectives into an integrated experience of learning for the student. The order of the concepts and performance objectives is not intended to indicate a progression or hierarchy for writing instruction. Instructional activities may focus on just one concept or many.

Concept 1: Ideas and Content Writing is clear and focused, holding the reader's attention throughout. Main ideas stand out and are developed by strong support and rich details. Purpose is accomplished.
PO 1. Express ideas that are clear and directly related to the topic.
PO 2. Provide content and selected details that are well-suited to audience and purpose.
PO 3. Use relevant details to provide adequate support for the ideas.

Concept 2: Organization Organization addresses the structure of the writing and threads the central meaning and the patterns that hold the piece together.
*PO 1. Organize content in a selected format. (e.g., **friendly letter**, **narrative**, expository text).* (See Strand 3)
PO 2. Create a beginning that captures the reader's interest.
PO 3. Place details appropriately to support the main idea.
*PO 4. Use **transitional words** and phrases (e.g., next, then, so, but, while, after that, because) to connect ideas.*
PO 5. Create an ending that provides a sense of **resolution** or closure.
PO 6. Construct a paragraph that groups sentences around a topic.

Concept 3: Voice Voice will vary according to the type of writing, but should be appropriately formal or casual, distant or personal, depending on the audience and purpose.
PO 1. Show awareness of the audience through word choice and style.
PO 2. Convey a sense of originality, sincerity, liveliness, or humor appropriate to topic and type of writing.

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
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Writing Standard Articulated by Grade Level

Grade 3

Concept 4: Word Choice Word choice reflects the writer's use of specific words and phrases to convey the intended message and employs a variety of words that are functional and appropriate to the audience and purpose.
PO 1. Use a variety of specific and accurate words that effectively convey the intended message.
PO 2. Use descriptive words and phrases that energize the writing.
PO 3. Apply vocabulary and/or terminology appropriate to the type of writing.
PO 4. Use **literal** and **figurative language** in a variety of ways (e.g., imitating, creating new words, **rhyming**), although may be inconsistent or experimental.

Concept 5: Sentence Fluency Fluency addresses the rhythm and flow of language. Sentences are strong and varied in structure and length.
PO 1. Write **simple and compound sentences**.
PO 2. *Write sentences that flow together and sound natural when read aloud.*
PO 3. Vary sentence beginnings, lengths, and patterns to enhance the flow of the writing.

Concept 6: Conventions Organization addresses the structure of the writing and threads the central meaning and the patterns that hold the piece together.
PO 1. Use capital letters for: a. ***proper nouns*** *(i.e., names, days, months*) b. titles c. names of places d. abbreviations e. literary titles (i.e., book, story, poem)
PO 2. Punctuate endings of sentences using: *a. periods* *b. question marks* c. *exclamation points*

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Writing Standard Articulated by Grade Level

Grade 3

PO 3. Use commas to punctuate: *a. items in a series* *b. greetings and closings of letters* *c. dates*
PO 4. Use quotation marks to punctuate **dialogue**, although may be inconsistent or experimental.
PO 5. Use a colon to punctuate time.
PO 6. Use apostrophes to punctuate: a. contractions b. singular possessive
*PO 7. Spell **high frequency words** correctly.*
PO 8. Use common spelling patterns/generalizations to spell words correctly, including: a. **word families** b. **regular plurals** c. **r-controlled** d. **diphthong** e. **consonant digraphs** f. **CVC words** g. **CCVC** h. **CVCC** i. **affixes**
PO 9. Spell simple **homonyms** correctly in context.
*PO 10. Use resources (e.g., dictionaries, **word walls**) to spell correctly.*
*PO 11. Use the following parts of speech correctly in **simple sentences**:* *a. nouns* *b. action verbs* *c. personal pronouns* *d. adjectives*
*PO 12. Use subject/verb agreement in **simple sentences**.*

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Writing Standard Articulated by Grade Level

Grade 3

Strand 3: Writing Applications

Writing skills particular to the modes listed here may be taught across the curriculum, although some modes may lend themselves more readily to specific content areas. It is imperative that students write in all content areas in order to increase their communication skills, and ultimately to improve their understanding of content area concepts. When appropriate, other content standards are referenced to show interdisciplinary connections.

Concept 1: Expressive

Expressive writing includes **personal narratives**, stories, poetry, songs, and dramatic pieces. Writing may be based on real or imagined events.

PO 1. Write a **narrative** based on imagined or real events, observations, or memories that includes:

a. characters
b. **setting**
c. **plot**
d. sensory details
e. clear language
f. logical sequence of events

PO 2. Write in a variety of expressive forms (e.g., poetry, skit) that may employ:

a. **figurative language**
b. **rhythm**
c. **dialogue**
d. **characterization**
e. **plot**
f. appropriate format

Concept 2: Expository

Expository writing includes non-fiction writing that describes, explains, or summarizes ideas and content. The writing supports a **thesis** based on research, observation, and/or experience.

PO 1. Record information (e.g., observations, notes, lists, charts, map labels and legends) related to the topic.

PO 2. Write an expository paragraph that contains:

a. a topic sentence
b. supporting details
c. relevant information

PO 3. Write in a variety of expository forms (e.g., summary, newspaper article, reflective paper, log, journal).

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Writing Standard Articulated by Grade Level

Grade 3

Concept 3: Functional Functional writing provides specific directions or information related to real-world tasks. This includes letters, memos, schedules, directories, signs, manuals, forms, recipes, and technical pieces for specific content areas.
PO 1. Write a variety of functional text (e.g., directions, recipes, procedures, ***rubrics,*** *labels, graphs/tables).* (See R03-S3C2; M03-S2C1)
PO 2. Write communications, including: a. *thank-you notes* b. ***friendly letters*** c. **formal letters** d. messages e. invitations
PO 3. Address an envelope for correspondence that includes: a. an appropriate return address b. an appropriate recipient address

Concept 4: Persuasive Persuasive writing is used for the purpose of influencing the reader. The author presents an issue and expresses an opinion in order to convince an audience to agree with the opinion or to take a particular action.
PO 1. Write persuasive text (e.g., advertisements, paragraph) that attempts to influence the reader. (See R03-S3C3)

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Writing Standard Articulated by Grade Level

Grade 3

Concept 5: Literary Response Literary response is the writer's reaction to a literary selection. The response includes the writer's interpretation, analysis, opinion, and/or feelings about the piece of literature and selected elements within it.
PO 1. Write a reflection to a literature selection (e.g., journal entry, book review). (See R03-S2C1)
PO 2. Write a book report or review that may identify the: a. **main idea** b. character(s) c. **setting** d. sequence of events e. problem/solution (See R03-S2C1)
PO 3. Write a response to a literature selection that connects: a. *text to self (personal connection)* b. *text to world (social connection)* c. *text to text (compare within multiple texts)* (See R03-S2C1)

Concept 6: Research Research writing is a process in which the writer identifies a topic or question to be answered. The writer locates and evaluates information about the topic or question, and then organizes, summarizes, and synthesizes the information into a finished product.
PO 1. Paraphrase information from at least one source (e.g., Internet, reference materials). (See R03-S3C1-03, -04, -05)
PO 2. Organize notes in a meaningful sequence. (See R03-S3C1-03, -04, -05)
PO 3. Write an informational report that includes **main idea**(s) and relevant details. (See R03-S3C1-03, -04, -05)

Italics denotes a repetition of a performance objective (learned in an earlier grade) that is to be applied to more complex writing.
The bulleted (lettered) items within a performance objective indicate specific content to be taught.
Words shown in bold print are referenced in the glossary.

Language Arts 1996
Writing (1996)
Listening and Speaking
Viewing and Presenting

Foundations (Grades 1-3)

Language Arts Standards Rationale

A Vision for Arizona's Students

Arizona's students must be able to communicate effectively in their schools and communities. The communication skills of reading, writing, listening, speaking, viewing and presenting form the core of language and literacy. The ultimate purpose of the following language arts standards is to ensure that all students be offered the opportunities, the encouragement and the vision to develop the language skills they need to pursue lifelong goals, including finding personal enrichment and participating as informed members of society. The language art standards presented in this document are organized into four areas:

- Reading
- Writing
- Listening and Speaking
- Viewing and Presenting

Reading, writing, listening and speaking are commonly recognized as language skills. Visual communication skills have long been applied in language arts classrooms through the use of media and visual resources. However, with the increase in the availability and variety of media, students are faced with numerous demands for interpreting and creating visual messages. In this document, viewing (interpreting visual messages) and presenting (creating visual messages) are the two aspects of visual communication. Resources available for teaching visual communication range from charts, graphs and photographs to the most sophisticated electronic media.

The interdependency of reading, writing, listening, speaking, viewing and presenting requires that language arts skills be integrated in two ways:

- Within language arts
- Across other content areas

Students use language skills to understand academic subject matter and to enrich their lives. They develop literacy at different rates and in a variety of ways. Consequently, interdependent language arts skills and processes should be taught in a variety of learning situations.

Assessment of language arts skills and processes should be comprehensive, authentic and performance based. Multiple assessment methods should be used to evaluate a student's knowledge base and the application of reading, writing, listening, speaking, viewing and presenting.

Assessment tasks should reflect those experiences encountered in the home, community and workplace. Issues concerning assessment of specific populations pose complex questions with no simple solutions. As programs and assessments are developed, these issues must be resolved to enable all students to meet the standards.

In conclusion, the standards in the language arts framework form the core of every student's ability to function effectively in society. Students will need a wide repertoire of communication strategies and skills to succeed as learners, citizens, workers and fulfilled individuals in the 21st century.

Table 1. Language Arts Standards

***STANDARD 1*: Reading - Removed from this document**
See Reading Standard Articulated by Grade Level

***STANDARD 2*: Writing - 2004-2005: Transition Year;**
2005-2006: Implement Writing Standard Articulated by Grade Level

Students effectively use written language for a variety of purposes and with a variety of audiences.

***STANDARD 3*. Listening and Speaking**

Students effectively listen and speak in situations that serve different purposes and involve a variety of audiences.

***STANDARD 4:* Viewing and Presenting**

Students use a variety of visual media and resources to gather, evaluate and synthesize information and to communicate with others.

LANGUAGE ARTS STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

STANDARD 2: WRITING

Students effectively use written language for a variety of purposes and with a variety of audiences.

- **W-F1. Use the writing process, including generating topics, drafting, revising ideas and editing, to complete effectively a variety of writing tasks**

  PO 1. Generate topics through prewriting activities (e.g., brainstorming, webbing, mapping, drawing, writer's notebook, K-W-L charts, scaffolds, group discussion)
  PO 2. Align purpose (e.g., to entertain, to inform, to communicate) with audience
  PO 3. Write a first draft with the necessary components for a specific genre
  PO 4. Revise draft content (e.g., organization, relevant details, clarity)
  PO 5. Edit revised draft using resources (e.g., dictionary, word lists and banks, thesaurus, spell checker, glossary, style manual, grammar and usage reference)
  PO 6. Proofread revised draft
  PO 7. Present final copy according to purpose (e.g., read aloud, display, publish, mail, send, perform)

- **W-F2. Use correct spelling, punctuation, capitalization, grammar and word usage, and good penmanship to complete effectively a variety of writing tasks**

  In final copy of student's own writing tasks:

  PO 1. Spell high frequency words correctly
  PO 2. Punctuate endings of sentences
  PO 3. Capitalize sentence beginnings and proper nouns
  PO 4. Use standard, age-appropriate grammar and word usage (e.g., basic subject-verb agreement, complete simple sentences, appropriate verb tense, regular plurals)
  PO 5. Write legibly

- **W-F3. Write a personal experience narrative or a creative story that has a beginning, middle, and end and uses descriptive words or phrases to develop ideas and advance the characters, plot and setting**

  PO 1. Write a narrative
  - establish a beginning, middle and end
  - use sensory details to describe

  -OR-

  PO2. Write a story
  - use sensory details to describe setting and characters
  - develop a story line with a problem and events leading to a solution

- **W-F4. Gather, organize and accurately, clearly and sequentially report information gained from personal observations and experiences such as science experiments, field trips and classroom visitors**

  PO 1. Record observations (e.g., logs, lists, graphs, charts, tables, illustrations)
  PO 2. Write an introductory statement
  PO 3. Report events sequentially
  PO 4. Write a concluding statement

- **W-F5. Locate, acknowledge and use several sources to write an informational report in their own words**

  PO 1. Use resources (e.g., video tapes, magazines, informational books, reference materials, interviews, guest speakers, Internet) and report information in their own words
  PO 2. Write an introductory statement, followed by details to support the main idea
  PO 3. List resources used by title

- **W-F6. Write well-organized communications, such as friendly letters, memos and invitations, for a specific audience and with a clear purpose**

  PO 1. Organize content, including necessary components of the selected format, for a specified audience
  PO 2. Place commas correctly in components (e.g., heading, greeting, closing, address) unique to letters, memos, invitations

STANDARD 3: LISTENING AND SPEAKING

Students effectively listen and speak in situations that serve different purposes and involve a variety of audiences.

- **3LS-F1. Use effective vocabulary and logical organization to relate or summarize ideas, events and other information**

- **3LS-F2. Give and follow multiple-step directions**

- **3LS-F3. Prepare and deliver information by generating topics; identifying the audience; and organizing ideas, facts or opinions for a variety of speaking purposes such as giving directions, relating personal experiences, telling a story or presenting a report**

STANDARD 4: VIEWING AND PRESENTING

Students use a variety of visual media and resources to gather, evaluate and synthesize information and to communicate with others.

- **4VP-F1. Recognize different types of visual media**

- **4VP-F2. Plan and present a report, using two or more visual media**

- **4VP-F3. Access, view and respond to visual forms such as computer programs, videos, artifacts, drawings, pictures and collages**

- **4VP-F4. Interpret visual clues in cartoons, graphs, tables and charts that enhance the comprehension of text**

LANGUAGE ARTS GLOSSARY

Acknowledge To cite the source of information in a written piece.

Address To speak to; to deal with.

Adequate Sufficient, competent, satisfactory.

Advance To put forward, propose.

Allusion An indirect reference to something assumed to be familiar.

Analytic Noting relationships; reasoning from the interrelations of a subject.

Anticipate To foresee, to realize beforehand.

Appropriate Consistent with accepted standards; suited to an end or purpose.

Cluster A group of the same or similar elements.

Cohesive Consistent, tending to unify.

Complex Composite, intricate, complicated.

Concrete Precise, specific.

Contain To have within, to include, to have as component parts.

Contemporary In existence now; present, current, present-day.

Convey To communicate or make known.

Craft To construct, create.

Create To produce through artistic or imaginative effort.

Creative Original, inventive, innovative.

Credible Worthy of belief because of precision; valid, convincing, true.

Credit To acknowledge work done; to cite.

Effective Producing a desired effect; efficient.

Exclude To reject; to prevent from being included or considered.

Expository Explanatory, interpretive.

Figurative Language Use of figures of speech; symbolic language.

Genre Type or class; classification of literature.

Good Penmanship Readable formation of letters; the art of handwriting.

High Frequency Word A word that appears many more times than others in ordinary reading materials.

Idiomatic Pertaining to expressions of language that do not mean what they literally say.

Interpretive Serving to explain; explanatory.

K-W-L A reading comprehension strategy to determine what a student knows, wants to know and has learned.

List To itemize; to make a list of.

Maintain To support, sustain.

Meaningful Effectively conveying meaning, feeling or mood; important, significant.

Metaphor A figure of speech in which a comparison is implied by analogy, but not stated.

Paraphrase To restate text or passage in another form or words.

Personal Experience First-hand experience.

Perspective View, outlook.

Preserve To keep or maintain intact.

Reflective Characterized by, or disposed to, serious thought; contemplative, deliberative.

Relate To give account of; describe, report.

Relevant Having a bearing on, or connection with, the matter at hand.

Résumé A brief written account of personal, educational and professional qualifications and experience.

Scaffold To build one idea upon another.

Sensory Pertaining to the senses.

Simile A figure of speech in which two essentially unlike things are compared.

Skim To look through reading matter casually.

Symbolism Attributing symbolic meanings or significance to objects, events or relationships.

Traditional Conventional.

Mathematics Standard Articulated By Grade Level 2003

Grade 3

MATHEMATICS STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Strand 1: Number Sense and Operations

Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.

Concept 1: Number Sense

Understand and apply numbers, ways of representing numbers, the relationships among numbers and different number systems.

PO 1. Read whole numbers in contextual situations (through six-digit numbers).

PO 2. Identify six-digit whole numbers in or out of order.

PO 3. Write whole numbers through six-digits in or out of order.

PO 4. State whole numbers, through six-digits, with correct place value, by using models, illustrations, symbols, or expanded notation (e.g., 53,941 = 50,000 + 3,000 + 900 + 40 +1).

PO 5. Construct models to represent place value concepts for the one's, ten's, and hundred's places.

PO 6. Apply expanded notation to model place value through 9,999 (e.g., 5,378 = 5,000 + 300 + 70 + 8).

PO 7. Sort whole numbers into sets containing only odd numbers or only even numbers.

PO 8. Compare two whole numbers, through six-digits.

PO 9. Order three or more whole numbers through six-digit numbers (least to greatest, or greatest to least).

PO 10. Make models that represent proper fractions (halves, thirds, fourths, eighths, and tenths).

PO 11. Identify symbols, words, or models that represent proper fractions (halves, thirds, fourths, eighths and tenths).

PO 12. Use proper fractions in contextual situations.

PO 13. Compare two proper fractions with like denominators.

PO 14. Order three or more proper fractions with like denominators (halves, thirds, fourths, eighths, and tenths).

PO 15. Count amounts of money through $20.00 using pictures or actual bills and coins. PO 15. Count amounts of money through $20.00 using pictures or actual bills and coins.

PO 16. Use decimals through hundredths in contextual situations.

PO 17. Compare two decimals, through hundredths, using models, illustrations, or symbols.

GRADE 3

PO 18. Order three or more decimals, through hundredths, using models, illustrations, or symbols.

PO 19. Determine the equivalency among decimals, fractions, and percents (e.g., half-dollar = 50¢ = 50% and 1/4 = 0.25 = 25%).

PO 20. Identify whole-number factors and/or pairs of factors for a given whole number through 24.

PO 21. Determine multiples of a given whole number with products through 24 (skip counting).

Concept 2: Numerical Operations

Understand and apply numerical operations and their relationship to one another.

PO 1. Demonstrate the process of subtraction using manipulatives through three-digit whole numbers.

PO 2. Add two three-digit whole numbers.

PO 3. Subtract two three-digit whole numbers.

PO 4. Add a column of numbers.

PO 5. Select the grade-level appropriate operation to solve word problems.

PO 6. Solve word problems using grade-level appropriate operations and numbers.

PO 7. Demonstrate the process of multiplication as repeatedly adding the same number, counting by multiples, combining equal sets, and making arrays.

PO 8. Demonstrate the process of division with one-digit divisors (separating elements of a set into smaller equal sets, sharing equally, or repeatedly subtracting the same number).

PO 9. Demonstrate families of equations for multiplication and division through 9s.

PO 10. State multiplication and division facts through 9s.

PO 11. Demonstrate the commutative and identity properties of multiplication.

PO 12. Identify multiplication and division as inverse operations.

PO 13. Apply grade-level appropriate properties to assist in computation.

PO 14. Apply the symbols: $\times$, $\div$, /, $*$, %, and the grouping symbols ( ) and ",".

PO 15. Use grade-level appropriate mathematical terminology.

PO 16. Add or subtract fractions with like denominators (halves, thirds, fourths, eighths, and tenths) appropriate to grade level.

PO 17. Apply addition and subtraction in contextual situations, through $20.00.

MATHEMATICS STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 3: Estimation	
Use estimation strategies reasonably and fluently.	
PO 1.	Solve grade-level appropriate problems using estimation.
PO 2.	Estimate length and weight using U.S. customary units.
PO 3.	Record estimated and actual linear measurements for real-life objects (e.g., length of fingernail; height of desk).
PO 4.	Compare estimations of appropriate measures to the actual measures.
PO 5.	Evaluate the reasonableness of estimated measures.

Strand 2: Data Analysis, Probability, and Discrete Mathematics

Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.

Concept 1: Data Analysis (Statistics)	
Understand and apply data collection, organization and representation to analyze and sort data.	
PO 1.	Formulate questions to collect data in contextual situations.
PO 2.	Construct a horizontal bar, vertical bar, pictograph, or tally chart with appropriate labels and title from organized data.
PO 3.	Interpret data found in line plots, pictographs, and single-bar graphs (horizontal and vertical).
PO 4.	Answer questions based on data found in line plots, pictographs, and single-bar graphs (horizontal and vertical).
PO 5.	Formulate questions based on graphs, charts, and tables to solve problems.
PO 6.	Solve problems using graphs, charts and tables.

MATHEMATICS STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Concept 2: Probability
Understand and apply the basic concepts of probability.
PO 1. Name the possible outcomes for a probability experiment.
PO 2. Make predictions about the probability of events being more likely, less likely, equally likely or unlikely.
PO 3. Predict the outcome of a grade-level appropriate probability experiment.
PO 4. Record the data from performing a grade-level appropriate probability experiment.
PO 5. Compare the outcome of an experiment to predictions made prior to performing the experiment.
PO 6. Compare the results of two repetitions of the same grade-level appropriate probability experiment.

Concept 3: Discrete Mathematics – Systematic Listing and Counting
Understand and demonstrate the systematic listing and counting of possible outcomes.
PO 1. Make a diagram to represent the number of combinations available when 1 item is selected from each of 3 sets of 2 items (e.g., 2 different shirts, 2 different hats, 2 different belts).

Concept 4: Vertex-Edge Graphs
Understand and apply vertex-edge graphs.
PO 1. Color maps with the least number of colors so that no common edges share the same color (increased complexity throughout grade levels).

MATHEMATICS STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Strand 3: Patterns, Algebra, and Functions

Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.

Concept 1: Patterns
Identify patterns and apply pattern recognition to reason mathematically.
PO 1. Communicate a grade-level appropriate iterative pattern, using symbols or numbers.
PO 2. Extend a grade-level appropriate repetitive pattern (e.g., 5, 10, 15, 20, . . . rule: add five or count by five's).
PO 3. Solve grade-level appropriate pattern problems.

Concept 2: Functions and Relationships
Describe and model functions and their relationships.
PO 1. Describe the rule used in a simple grade-level appropriate function (e.g., T-chart, input/output model, and frames and arrows).

Concept 3: Algebraic Representations
Represent and analyze mathematical situations and structures using algebraic representations.
PO 1. Use variables in contextual situations.
PO 2. Solve equations with one variable using missing addends to sums of 18 (e.g., □ + 9 = 18, 9 + □ = 18); and using minuend through 18 (e.g., 18 - □ = 9, 18 - 9 = □).

Concept 4: Analysis of Change
Analyze change in a variable over time and in various contexts.
PO 1. Identify the change in a variable over time (e.g., an object gets taller, colder, heavier).
PO 2. Make simple predictions based on a variable (e.g., increases in allowance as you get older).

MATHEMATICS STANDARD ARTICULATED BY GRADE LEVEL

GRADE 3

Strand 4: Geometry and Measurement

Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.

Concept 1: Geometric Properties

Analyze the attributes and properties of 2- and 3- dimensional shapes and develop mathematical arguments about their relationships.

PO 1. Build geometric figures with other common shapes (e.g., tangrams, pattern blocks, geoboards).

PO 2. Name concrete objects and pictures of 3-dimensional solids (cones, spheres, and cubes).

PO 3. Describe relationships between 2-dimensional and 3-dimensional objects (squares/cubes, circles/spheres, triangles/cones).

PO 4. Recognize similar shapes.

PO 5. Identify a line of symmetry in a 2-dimensional shape.

Concept 2: Transformation of Shapes

Apply spatial reasoning to create transformations and use symmetry to analyze mathematical situations.

PO 1. Recognize same shape in different positions (turn/rotation).

Concept 3: Coordinate Geometry

Specify and describe spatial relationships using coordinate geometry and other representational systems.

PO 1. Identify points in the first quadrant of a grid using ordered pairs.

Concept 4: Measurement - Units of Measure - Geometric Objects

Understand and apply appropriate units of measure, measurement techniques, and formulas to determine measurements.

PO 1. Select the appropriate measure of accuracy:

- length – centimeters, meters, kilometers,
- capacity/volume – liters, and
- mass/weight – grams.

PO 2. Tell time with one-minute precision (analog).

PO 3. Determine the passage of time across months (units of days, weeks, months) using a calendar.

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PO 4. Measure a given object using the appropriate unit of measure:
- length – centimeters, millimeters, meters, kilometers,
- capacity/volume – liters, and
- mass/weight – grams.

PO 5. Record temperatures to the nearest degree in degrees Fahrenheit and degrees Celsius as shown on a thermometer.

PO 6. Compare units of measure to determine more or less relationships for:
- length – inches to feet; centimeters to meters,
- time – minutes to hours; hours to days; days to weeks; months to years, and
- money – pennies, nickels, dimes, quarters, and dollars.

PO 7. Determine relationships for:
- volume – cups and gallons,
- weight – ounces and pounds, and
- money – extend to amounts greater than one dollar.

PO 8. Compare the length of two objects using U.S. customary or metric units.

PO 9. Determine the perimeter using a rectangular array.

PO 10. Represent area using a rectangular array.

Strand 5: Structure and Logic

Every student should understand and use all concepts and skills from the previous grade levels. The standards are designed so that new learning builds on preceding skills and are needed to learn new skills. Communication, Problem-solving, Reasoning & Proof, Connections, and Representation are the process standards that are embedded throughout the teaching and learning of mathematical strands.

Concept 1: Algorithms and Algorithmic Thinking

Use reasoning to solve mathematical problems in contextual situations.

PO 1. Discriminate necessary information from unnecessary information in a given grade-level appropriate word problem.

Concept 2: Logic, Reasoning, Arguments, and Mathematical Proof

Evaluate situations, select problem-solving strategies, draw logical conclusions, develop and describe solutions and recognize their applications.

PO 1. Draw conclusions based on existing information (e.g., All students in Ms. Dean's 1st grade class are less than 7 years old. Rafael is in Ms. Dean's class. Conclusion: Rafael is less than 7 years old.).

Science Standard Articulated by Grade Level 2004

Grade 3

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

The goal in the development of the standard was to assure that the six strands and five unifying concepts are interwoven into a fabric of science that represents the true nature of science. Students have the opportunity to develop both the skills and content knowledge necessary to be scientifically literate members of the community.

Strands 1, 2, and 3 are designed to be explicitly taught *and* embedded *within* each of the content strands 4, 5, and 6, and are not intended to be taught in isolation. The processes, skills, and content of the first three strands are designed to "umbrella" and complement the content of Life Science, Physical Science, and Earth and Space Science.

Strand 1: Inquiry Process

Inquiry Process establishes the basis for students' learning in science. Students use scientific processes: questioning, planning and conducting investigations, using appropriate tools and techniques to gather data, thinking critically and logically about relationships between evidence and explanations, and communicating results.

Concept 1: Observations, Questions, and Hypotheses

Observe, ask questions, and make predictions.

PO 1. Formulate relevant questions about the properties of objects, organisms, and events of the environment using observations and prior knowledge.
(See M03-S2C1-01)

PO 2. Predict the results of an investigation based on observed patterns, not random guessing.

Concept 2: Scientific Testing (Investigating and Modeling)

Participate in planning and conducting investigations, and recording data.

PO 1. Demonstrate safe behavior and appropriate procedures (e.g., use of instruments, materials, organisms) in all science inquiry.

PO 2. Plan a simple investigation (e.g., one plant receives adequate water, one receives too much water, and one receives too little water) based on the formulated questions.

PO 3. Conduct simple investigations (e.g., related to plant life cycles, changing the pitch of a sound, properties of rocks) in life, physical, and earth and space sciences.

PO 4. Use metric and U.S. customary units to measure objects.
(See M03-S4C4-04)

PO 5. Record data in an organized and appropriate format (e.g., t-chart, table, list, written log).
(See W-F4-01)

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Concept 3: Analysis and Conclusions
Organize and analyze data; compare to predictions.

PO 1. Organize data using the following methods with appropriate labels:
- bar graphs
- pictographs
- tally charts

(See M03-S2C1-02)

PO 2. Construct reasonable interpretations of the collected data based on formulated questions.
(See M03-S2C1-03)

PO 3. Compare the results of the investigation to predictions made prior to the investigation.
(See M03-S2C2-05)

PO 4. Generate questions for possible future investigations based on the conclusions of the investigation.

PO 5. Record questions for further inquiry based on the conclusions of the investigation.

Concept 4: Communication
Communicate results of investigations.

PO 1. Communicate investigations and explanations using evidence and appropriate terminology.
(See W-F5-01)

PO 2. Describe an investigation in ways that enable others to repeat it.
(See LS-F1)

PO 3. Communicate with other groups to describe the results of an investigation.
(See LS-E1)

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SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Strand 2: History and Nature of Science

Scientific investigation grows from the contributions of many people. History and Nature of Science emphasizes the importance of the inclusion of historical perspectives and the advances that each new development brings to technology and human knowledge. This strand focuses on the human aspects of science and the role that scientists play in the development of various cultures.

Concept 1: History of Science as a Human Endeavor Identify individual and cultural contributions to scientific knowledge.
PO 1. Identify how diverse people and/or cultures, past and present, have made important contributions to scientific innovations (e.g., John Muir [naturalist], supports Strand 4; Thomas Edison [inventor], supports Strand 5; Mae Jemison [engineer, physician, astronaut], supports Strand 6,; Edmund Halley [scientist], supports Strand 6).
PO 2. Describe science-related career opportunities.

Concept 2: Nature of Scientific Knowledge Understand how science is a process for generating knowledge.
PO 1. Describe how, in a system (e.g., terrarium, house) with many components, the components usually influence one another.
PO 2. Explain why a system may not work if a component is defective or missing.

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SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Strand 3: Science in Personal and Social Perspectives

Science in Personal and Social Perspectives emphasizes developing the ability to design a solution to a problem, to understand the relationship between science and technology, and the ways people are involved in both. Students understand the impact of science and technology on human activity and the environment. This strand affords students the opportunity to understand their place in the world – as living creatures, consumers, decision makers, problem solvers, managers, and planners.

Concept 1: Changes in Environments Describe the interactions between human populations, natural hazards, and the environment.
PO 1. Describe the major factors that could impact a human population (e.g., famine, drought, disease, improved transportation, medical breakthroughs). PO 2. Describe the beneficial and harmful impacts of natural events and human activities on the environment (e.g., forest fires, flooding, pesticides).

Concept 2: Science and Technology in Society Understand the impact of technology.
PO 1. Identify ways that people use tools and techniques to solve problems. PO 2. Describe the development of different technologies (e.g., communication, entertainment, transportation, medicine) in response to resources, needs, and values. PO 3. Design and construct a technological solution to a common problem or need using common materials.

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Strand 4: Life Science

Life Science expands students' biological understanding of life by focusing on the characteristics of living things, the diversity of life, and how organisms and populations change over time in terms of biological adaptation and genetics. This understanding includes the relationship of structures to their functions and life cycles, interrelationships of matter and energy in living organisms, and the interactions of living organisms with their environment.

Concept 1: Characteristics of Organisms

Understand that basic structures in plants and animals serve a function.

PO 1. Describe the function of the following plant structures:
- roots – absorb nutrients
- stems – provide support
- leaves – synthesize food
- flowers – attract pollinators and produce seeds for reproduction

Concept 2: Life Cycles

Understand the life cycles of plants and animals.

PO 1. Compare life cycles of various plants (e.g., conifers, flowering plants, ferns).

PO 2. Explain how growth, death, and decay are part of the plant life cycle.

Concept 3: Organisms and Environments

Understand the relationships among various organisms and their environment.

PO 1. Identify the living and nonliving components of an ecosystem.

PO 2. Examine an ecosystem to identify microscopic and macroscopic organisms.

PO 3. Explain the interrelationships among plants and animals in different environments:
- producers – plants
- consumers – animals
- decomposers – fungi, insects, bacteria

PO 4. Describe how plants and animals cause change in their environment.

PO 5. Describe how environmental factors (e.g., soil composition, range of temperature, quantity and quality of light or water) in the ecosystem may affect a member organism's ability to grow, reproduce, and thrive.

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Concept 4: Diversity, Adaptation, and Behavior Identify plant and animal adaptations.
PO 1. Identify adaptations of plants and animals that allow them to live in specific environments. PO 2. Describe ways that species adapt when introduced into new environments. PO 3. Cite examples of how a species' inability to adapt to changing conditions in the ecosystem led to the extinction of that species.

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Strand 5: Physical Science

Physical Science affords students the opportunity to increase their understanding of the characteristics of objects and materials they encounter daily. Students gain an understanding of the nature of matter and energy, including their forms, the changes they undergo, and their interactions. By studying objects and the forces that act upon them, students develop an understanding of the fundamental laws of motion, knowledge of the various ways energy is stored in a system, and the processes by which energy is transferred between systems and surroundings.

Concept 1: Properties of Objects and Materials Classify objects and materials by their observable properties.
No performance objectives at this grade level

Concept 2: Position and Motion of Objects Understand spatial relationships and the way objects move.
No performance objectives at this grade level

Concept 3: Energy and Magnetism Investigate different forms of energy.
PO 1. Demonstrate that light can be: • reflected (with mirrors) • refracted (with prisms) • absorbed (by dark surfaces) PO 2. Describe how light behaves on striking objects that are: • transparent (clear plastic) • translucent (waxed paper) • opaque (cardboard) PO 3. Demonstrate that vibrating objects produce sound. PO 4. Demonstrate that the pitch of a sound depends on the rate of the vibration (e.g., a long rubber band has a lower pitch than a short rubber band).

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

SCIENCE STANDARD ARTICULATED BY GRADE LEVEL
GRADE 3

Strand 6: Earth and Space Science

Earth and Space Science provides the foundation for students to develop an understanding of the Earth, its history, composition, and formative processes, and an understanding of the solar system and the universe. Students study the regularities of the interrelated systems of the natural world. In doing so, they develop understandings of the basic laws, theories, and models that explain the world (NSES, 1995). By studying the Earth from both a historical and current time frame, students can make informed decisions about issues affecting the planet on which they live.

Concept 1: Properties of Earth Materials
Identify the basic properties of earth materials.

PO 1. Identify the layers of the Earth:
- crust
- mantle
- core (inner and outer)

PO 2. Describe the different types of rocks and how they are formed:
- metamorphic
- igneous
- sedimentary

PO 3. Classify rocks based on the following physical properties:
- color
- texture

PO 4. Describe fossils as a record of past life forms.

PO 5. Describe how fossils are formed.

PO 6. Describe ways humans use earth materials (e.g., fuel, building materials, growing food).

Concept 2: Objects in the Sky
Identify objects in the sky.

No performance objectives at this grade level

Concept 3: Changes in the Earth and Sky
Understand characteristics of weather conditions and climate.

No performance objectives at this grade level

Italics denote a repetition of a performance objective (learned in an earlier grade) that is to be applied to grade level content or at a higher level of complexity.
The bulleted items within a performance objective indicate specific content to be taught.

Social Studies Standards 2000

Foundations (Grades 1-3)

Social Studies Standards Rationale

To maintain the Union that supports our freedoms, citizens must rely on the knowledge, skills, and character of its citizens and those they elect to public office. Critical to the preservation and improvement of America's republican form of government is the study of America's founding principles, namely the principles as detailed in the United States Constitution, the Declaration of Independence, and in *The Federalist Papers*. The standards include study of the rich and diverse contributions people of many backgrounds have made to American life and institutions, and at the same time, emphasize our shared heritage as citizens and residents of the United States. They require that students acquire both core knowledge and a firm grasp of reasoning and practice in inquiry and research. Students must learn how to frame and test hypotheses, distinguish logical from illogical reasoning, frame reasoned options and arguments, and grasp reflective thinking and evaluation. The standards present the academic content and skills in the four interrelated disciplines of history, geography, civics/government, and economics that are essential to an understanding of human experience, past and present.

History

The study of history is essential in developing citizens who understand contemporary issues with a depth and wisdom drawn from the experience of the past. Through the study of history, which integrates the humanities (such as art and literature) and the social sciences (political science, economics, and geography), students will better understand their own society as well as others. Because most United States institutions and ideals trace their origins through Europe, the study of Western civilizations is a central feature of the standards, although students are also expected to learn about the significant contributions of other non-Western civilizations. Analyzing patterns and relationships within and among world cultures such as economic competition and interdependence, age-old ethnic enmities, and political and military alliances, helps learners carefully examine policy alternatives that have both national and worldwide implications. The deep study of history is further informed and enlivened by considering current events and issues. Important as well, students will develop understanding of chronological thinking, the connection between causes and effects, and between continuity and change. They will see how people in other times and places have grappled with the fundamental questions of truth, justice, and personal responsibility, understand that ideas have real consequences, and realize that events are shaped both by ideas and the actions of individuals.

Civics/Government

The goal of the civics standards is to develop in all students the requisite knowledge and skills for informed, responsible participation in public life; to ensure, through instruction, that students understand the essentials, sources, and history of the constitutions of the United States and Arizona, American institutions and ideals (ARS 15-710). Through these standards, students will understand the foundations, principles, and institutional practices of the United States as a representative democracy and constitutional republic. They will be aware of their rights as citizens and residents of the United States. They will understand the importance of each person

as an individual, the importance of respect for the human and civil rights of all people, and our shared heritage as citizens and residents of the United States. The civics standards also reflect the need to help students develop a basic understanding of politics and government and to practice the skills of good citizenship. Students should be able to obtain, understand, and evaluate information relating to the performance of public officials. Citizenship skills are also required for competent participation in the political process. These include the capacity to influence policies and decisions by working with others, clearly articulating interests and making them known to key decision and policy makers, building coalitions, negotiating, compromising, seeking consensus, and managing conflicts.

Geography

The goal of the geography standards is to provide an understanding of: 1) the human and physical characteristics of the Earth's places and regions, 2) how people of different cultural backgrounds interact with their environment, and 3) how the United States and the student's home state and community are affected by conditions and events in near and distant places. By learning to think spatially, students of geography will learn to analyze locations, places, and their myriad relationships. They will also have a framework to study local, regional, national, and global issues that concern them and understand their place in society. The essential skills of asking geographic questions; acquiring, presenting, and analyzing geographic information; and developing and testing geographic generalizations are central to the standards. The geographic reasoning that is represented is a way of studying human and natural features within a spatial perspective. Through geographic reasoning, students will understand the arrangement and interactions of human and physical systems on the surface of the Earth. As these patterns have changed over time and are important to governments and economies, geographic reasoning will help with students' understanding of history, civics, and economics.

Economics

The goal of the economics standards is to ensure that students understand economics well enough to make reasoned judgments about both personal economic questions and broader questions of economic policy. Through the standards, students will develop an economic way of thinking and problem solving in order to understand and apply basic economic principles to decisions they will make as consumers, members of the workforce, citizens, voters, and participants in a global marketplace. This type of critical thinking will prepare students to weigh not only the short-term effects of a decision, but also its long-term effects and possible unintended consequences. They will understand that because resources are scarce relative to wants, individuals and society must choose how to allocate goods and services among competing uses. Students will also understand that these choices and trade-offs significantly affect the quality of people's lives and explain historical developments and patterns, the results of trade, and the distribution of income and wealth in local, regional, national, and world economies. Understanding the process and components of economic reasoning also will provide a vital framework within which to analyze current issues and public policies, and to understand the complex relationships among economic, political, and cultural systems.

It is possible to spend a lifetime studying these areas without learning about every significant event. Our best hope in the years of formal schooling is that students learn to tell the important from the unimportant and to know enough about history, geography, economics, and civics and government to inform themselves about the vital connections between the present and the past. Our very first priority is to prepare our young people for the office of citizen. In conjunction with standards frameworks in other disciplines, these standards are designed to help all schools ensure that they promote a high level of academic rigor and provide sound opportunities for all students to learn.

Table 1. Social Studies Standards

***STANDARD 1*: History**

Students analyze the human experience through time, recognize the relationships of events and people, and interpret significant patterns, themes, ideas, beliefs, and turning points in Arizona, American, and world history.

***STANDARD 2*: Civics/Government**

Students understand the ideals, rights, and responsibilities of citizenship, and the content, sources, and history of the founding documents of the United States, with particular emphasis on the Constitution and how the government functions at the local, state, national, and international levels.

***STANDARD 3*: Geography**

Students analyze locations, regions, and spatial connections, recognizing the natural and cultural processes that impact the way in which people and societies live and interact with each other and their environment.

***STANDARD 4*: Economics**

Students develop economic reasoning skills to apply basic economic concepts, assess problems, make choices, and evaluate the choices of others as consumers, workers, and citizens participating in local, national, and global economies.

SOCIAL STUDIES STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

STANDARD 1: HISTORY

Students analyze the human experience through time, recognize the relationships of events and people, and interpret significant patterns, themes, ideas, beliefs, and turning points in in Arizona, American, and world history.

- **1SS-F1. Demonstrate the ability to place events in chronological sequence, with emphasis on :**

  Note: *Historical research and analytical skills are to be learned and applied to the content standards for grades 1-3*

  PO 1. using a timeline to place in order important events in a student's life
  PO 2. recognizing a sequence of events

- **1SS-F2. Describe everyday life in the past and recognize that some aspects change and others stay the same, with emphasis on:**

  Note: Historical research and analytical skills are to be learned and applied to the content standards for grades 1-3

  PO 1. using primary source materials, including photographs, artifacts, interviews, and documents to trace the history of a family from long ago
  PO 2. the economies, symbols, customs, and oral traditions of an Indian community of Arizona, including the significance of the Eagle Feather, trade networks, decorative arts, housing, songs, and dances
  PO 3. how past cultural exchanges influence present-day life, including food, art, shelter, and language

- **1SS-F3. Use stories to describe past events, people, and places, with emphasis on:**

  PO 1. contributions from past events and cultures
  PO 2. examples of individual action, character, and values
  PO 3. descriptions of daily life in past time and different places, including the various roles of men, women, and children

- **1SS-F4. Describe the stories of important American heroes and their contributions to our society, with emphasis on:**

  PO 1. those who secured our freedom, including George Washington, Benjamin Franklin, and Thomas Jefferson
  PO 2. those who fought for the rights and freedoms of others, including Chief Joseph, Chief Manuelito (Navajo, the Long Walk), Abraham Lincoln, Harriet Tubman, Martin Luther King, Jr., and Cesar Chávez

STANDARD 2: CIVICS/GOVERNMENT

Students understand the ideals, rights, and responsibilities of citizenship, and the content, sources, and history of the founding documents of the United States, with particular emphasis on the Constitution and how the government functions at the local, state, national, and international levels.

- **2SS-F1. Describe the varied backgrounds of people living in the United States and the ways they have become members of one nation, with emphasis on:**

  PO 1. our shared principles, goals, customs, and traditions
  PO 2. the diversity in one's school and community and the benefits and challenges of a diverse population

- **2SS-F2. Identify and describe the symbols, icons, songs, and traditions of the United States that exemplify cherished ideals and provide continuity and sense of community across time, with emphasis on:**

  PO 1. the Pledge of Allegiance, and the songs that express American ideals, including the National Anthem and America the Beautiful
  PO 2. the significance of the national holidays and the heroism and achievements of the people associated with them, including Thanksgiving, Presidents' Day, Martin Luther King, Jr. Day, the Fourth of July, Labor Day, and Veterans Day
  PO 3. the American symbols, landmarks, and essential documents, including the Declaration of Independence, the flag, the bald eagle, and the Statue of Liberty

- **2SS-F3. Describe the rights and responsibilities of citizenship, with emphasis on:**

  PO 1. the elements of fair play, good sportsmanship, and the idea of treating others the way you want to be treated
  PO 2. the importance of participation and cooperation in a classroom and community
  PO 3. why we have rules and the consequences for violating them
  PO 4. the responsibility of voting

- **2SS-F4. Describe the basic structure and concepts of the United States government, with emphasis on:**

  PO 1. making of rules by direct democracy and by representative democracy
  PO 2. the three branches of government as represented by the president, Congress, and the Supreme Court
  PO 3. how Arizona and the other states combine to make a nation
  PO 4. the levels of government, including the role of local, tribal, state, and national Governments

STANDARD 3: GEOGRAPHY[1]

Students analyze locations, regions, and spatial connections, recognizing the natural and cultural processes that impact the way in which people and societies live and interact with each other and their environment.

- **3SS-F1. Construct and interpret maps and other geographic tools, including the use of map elements to organize information about people, places, and environments, with emphasis on:**

  PO 1. identifying the characteristics and purposes of maps, globes, and other geographic tools
  PO 2. identifying and using symbols, the compass rose, cardinal directions, and a grid system to locate places of significance on maps and globes
  PO 3. making a map using a title, compass rose, legend, scale, and grid system
  PO 4. using a spatial perspective to plan a safe route from a home to school
  PO 5. using a globe and an atlas to locate a student's city and state
  PO 6. measuring distance on a map
  PO 7. labeling the continents, oceans, and major mountain ranges on a map

- **3SS-F2. Identify natural and human characteristics of places and how people interact with and modify their environment, with emphasis on:**

  PO 1. natural characteristics of places, including land forms, bodies of water, natural resources, and weather
  PO 2. human characteristics of places, including houses, schools, neighborhoods, and communities
  PO 3. the relationship between the physical features and the location of human activities
  PO 4. how people depend on the physical environment and its natural resources to satisfy their basic needs
  PO 5. how people can conserve and replenish certain resources
  PO 6. the ways in which people have used and modified resources in the local region, including dam construction, building roads, building cities, and raising crops

[1] See Appendix for reference to Physical Geography

STANDARD 4: ECONOMICS

Students develop economic reasoning skills to apply basic economic concepts, assess problems, make choices, and evaluate the choices of others as consumers, workers, and citizens participating in local, national, and global economies.

- **4SS-F1. Describe how scarcity affects students' daily lives, with emphasis on:**

  PO 1. the opportunity cost of a choice
  PO 2. natural resources, human resources, and capital resources, and how they are used to produce goods and services
  PO 3. the costs and benefits of personal spending and saving choices

- **4SS-F2. Describe the characteristics of production and exchange in an economy, with emphasis on:**

  PO 1. the use of money and barter in the exchange of goods and services
  PO 2. why some things are made locally, some elsewhere in the United States, and some in other countries
  PO 3. the work that people do to manufacture, transport, and market goods and services
  PO 4. the interdependence of consumers and producers of goods and services

APPENDIX

Physical geography

Physical geography is the study of the natural processes that interact to produce the Earth's varying physical environments. These natural processes are subdivided into climate, landforms, biota (both plants and animals) and water – with the focus to develop an understanding of why places have particular physical characteristics. These physical geography processes are presented in Standard 4 (Life Science) and Standard 6 (Earth and Space Science) in Arizona's **Science Standards**. They are listed below, as they connect directly with and form the foundation for the rest of the geography standards.

FOUNDATIONS (Grades 1-3)

Climate:

6SC-F3. Identify the seasons and their characteristics

6SC-F5. Identify major features of natural processes and forces that shape the Earth's surface, including weathering and volcanic activity

6SC-F7. Measure and record changes in weather conditions

Landforms:

6SC-F1. Describe the basic Earth materials (rocks, soils, water and gases) and their physical properties

Biota:

4SC-F4. Identify characteristics of plants and animals (including extinct organisms) that allow them to live in specific environments

4SC-F7. Explain the interaction of living and non-living components within ecosystems

SOCIAL STUDIES GLOSSARY*

Amendment (Constitutional) Changes in, or additions to, a constitution. Proposed by a two-thirds vote of both houses of Congress or by a convention called by Congress at the request of two-thirds of the state legislatures. Ratified by approval of three-fourths of the states.

Articles of Confederation The first constitution of the United States (1781). Created a weak national government; replaced in 1789 by the Constitution of the United States.

Balance of Payments A record of all economic transactions between the residents of a country and those of foreign countries for a one-year period. This includes the movement of goods (exports and imports), and also the flow of services and capital (e.g., purchases of tourists, investment income, gifts, pensions, and foreign aid).

Balance of Trade The difference between the total amount of exports and imports for a country in one year.

Barter The direct exchange of one good or service for another without the use of money.

B.C.E. and C.E. Before the Common Era (formerly known as B.C.) and Common Era (formerly known as A.D.).

Bicameral A legislative body composed of two houses.

Bill of Rights The first ten amendments to the Constitution. Ratified in 1791, these amendments limit governmental power and protect basic rights and liberties of individuals.

Bureaucracy Administrative organizations that implement government policies.

Business Cycle The periods of recession and expansion that an economy goes through because production does not increase continuously over time.

Cabinet Secretaries, or chief administrators, of the major departments of the federal government. Cabinet secretaries are appointed by the president with the consent of the Senate.

Capital Manufactured resources such as tools, machinery, and buildings that are used in the production of other goods and services (e.g., school buildings, books, tables, and chairs are some examples of capital used to produce education). This is sometimes called real capital.

Case Study The in-depth examination of an issue.

Checks and Balances The Constitutional mechanisms that authorize each branch of government to share powers with the other branches and thereby check their activities. For example, the president may veto legislation passed by Congress; the Senate must confirm major executive appointments; and the courts may declare acts of Congress unconstitutional.

Circular Flow Model A diagram showing how households, firms, and the government are interdependent. Circular flow of income diagrams are used to illustrate that there are several ways to measure national income flows.

Citizen A member of a political society who owes allegiance to the government and is entitled to its protection.

Civil Rights The protections and privileges of personal liberty given to all U.S. citizens by the Constitution and Bill of Rights.

Command Economy A type of economic system where the resources are state owned and their allocation and use is determined by the centralized decisions of a planning authority (e.g., the former Soviet Union).

Common or Public Good To the benefit, or in the interest, of a politically organized society as a whole.

Comparative Advantage The idea that countries gain when they produce those items that they are most efficient at producing.

Competitive Behavior When a business or individual acts in a self-interested way intending to increase wealth.

Concurrent Powers Powers that may be exercised by both the federal and state governments (e.g., levying taxes, borrowing money and spending for the general welfare).

Confederate Of, or pertaining to, a group of states more or less permanently united for common purposes.

Consumer A person or organization that purchases or uses a product or service.

Consumer Sovereignty The power consumers have in directing market economies because goods and services are produced and exchanged mostly to satisfy consumer wants.

Criminal Justice The branch of law that deals with disputes or actions involving criminal penalties. It regulates the conduct of individuals, defines crimes, and provides punishment for criminal acts.

Cultural Diffusion The adoption of an aspect (or aspects) of another group's culture, such as the spread of the English language.

Cultural Landscape The visual outcome of humans living in a place.

Culture The learned behavior of people, such as belief systems and languages, social relations, institutions, organizations, and material goods such as food, clothing, buildings, technology.

Deflation A general lowering of prices. The opposite of inflation.

Delegated Powers Powers granted to the national government under the Constitution, as enumerated in Articles I, II and III.

Demand How much a consumer is willing and able to buy at each possible price.

Democracy The practice of the principle of equality of rights, opportunity, and treatment.

Demographics The statistical data of a population (e.g., average age, income, education).

Developed Nation A country with high levels of well-being, as measured by economic, social, and technological sophistication.

Developing Nation A country with low levels of well-being, as measured by economic, social, and technological sophistication.

Diffusion The spread of people, ideas, technology and products between places.

Distribution The arrangement of items over an area.

Due Process of Law The right of every citizen to be protected against arbitrary action by government.

Eagle Feather A universal symbol among American Indian Nations embodying power, strength, and values.

Economic Growth An increase in an economy's ability to produce goods and services which brings about a rise in standards of living.

Ecosystem The interaction of all living organisms with each other and with the physical environment.

Emigration People leaving a country (or other political unit).

English Bill of Rights An act passed by Parliament in 1689 which limited the power of the monarch. This document established Parliament as the most powerful branch of the English government.

Entrepreneur A person who organizes, operates, and assumes the risk for a business venture.

Environment Everything near and on the Earth's surface. Natural or physical environment refers to climate, biosphere, hydrosphere, soil, and geology. Human or cultural environment refers to aspects of the environment produced by humans.

Equal Protection Clause The Fourteenth Amendment provision that prohibits states from denying equal protection of the laws to all people - that is, discriminating against individuals in an arbitrary manner, such as on the basis of race.

Equal Protection of the Law The idea that no individual or group may receive special privileges from, nor be unjustly discriminated by, the law.

Erosion The lowering of the land surface by physical processes such as flowing water, landslides, glacial ice, waves. and wind.

Exchange Rate The price of one currency in terms of another (e.g., pesos per dollar).

Ex Post Facto Law A law that makes criminal an act that was legal when it was committed. (Latin: "after the fact")

Federal Reserve System A system of 12 district banks and a Board of Governors that regulates the activities of financial institutions and controls the money supply.

Federal Supremacy Article VI of the Constitution providing that the Constitution and all federal laws and treaties shall be the "supreme Law of the Land." Therefore, all federal laws take precedence over state and local laws.

Federalism A form of political organization in which governmental power is divided between a central government and territorial subdivisions--in the United States, among the national, state, and local governments.

Federalist Papers A series of essays written by Alexander Hamilton, John Jay and James Madison that were published to support the adoption of the proposed United States Constitution.

Federalists Advocates of a strong federal government and supporters of the adoption of the U.S. Constitution.

Feudalism Political and economic system in which a king or queen shared power with the nobility, who required services from the common people in return for allowing them to use the noble's land.

Fiscal Policy How the government uses taxes and/or government expenditures to change the level of output, employment, or prices.

Foreign Policy Policies of the federal government directed to matters beyond U.S. borders, especially relations with other countries.

Founders People who played important roles in the development of the national government of the United States.

Framers Delegates to the Philadelphia Convention held in 1787, and those who wrote and ratified the Bill of Rights.

Free Enterprise The freedom of private businesses to operate competitively, for profit, and without government controls.

Freedom of Expression The freedoms of speech, press, assembly, and petition that are protected by the First Amendment.

Freedom of the Press Freedom to print or publish without governmental interference.

Geographic Grid A system to locate points on the Earth's surface (e.g., latitude and longitude).

Geographic Information System (GIS) A computer database that displays information like a map, but can do much more than just show patterns. A GIS database consists of "layers" of information about places (e.g., topography, vegetation, roads, buildings, sewers) that can be combined with a geographical perspective to solve societal problems.

Geographic Tool A device used to compile, organize, manipulate, store, report, or display geographic information, including maps, gazetteers, globes, graphs, diagrams, aerial photographs, satellite images, geographic information systems, and other computer databases and software.

Great Compromise An agreement made at the Constitutional Convention of 1787 that balanced the interest of the small and large states, resulting in the United States Senate being made up of two Senators from each state and a House of Representatives based on population.

Gross Domestic Product A measure of how much an economy produces each year, stated in the dollar value of final goods and services.

Human Capital The knowledge and skills that enable workers to be productive.

Human Characteristics The pattern that people make on the surface of the Earth, such as cities, roads, canals, farms, and other ways people change the Earth.

Immigration People moving to a country (or other political unit).

Impeachment The act of accusing a public official of misconduct in office by presenting formal charges against him or her by the lower house, with a trial to be held before the upper house.

Inalienable Rights Fundamental rights of the people that may not be taken away. A phrase used in the Declaration of Independence.

Incentive A benefit offered to encourage people to act in certain ways.

Inflation A general rise in the level of prices.

Initiative A form of direct democracy in which the voters of a state can propose a law by gathering signatures and having the proposition placed on the ballot.

Interdependence Reliance on people in other places for information, resources, goods, and services.

Isolationism The belief that the United States should not be involved in world affairs and should avoid involvement in foreign wars.

Judicial Review The doctrine that permits the federal courts to declare unconstitutional, and thus null and void, acts of the Congress, the executive, and the states. The precedent for judicial review was established in the 1803 case of *Marbury* v. *Madison*.

Justice Fair distribution of benefits and burdens, fair correction of wrongs and injuries, or use of fair procedures in gathering information and making decisions.

Land Use How people use the Earth's surface (e.g., urban, rural, agricultural, range, forest); often subdivided into specific uses (e.g., retail, low-density housing, industrial).

Landform A description of the Earth's shape at a place (e.g., mountain range, plateau, flood plain).

Latitude The angular distance north or south of the equator, measured in degrees along a line of longitude.

Legend The map key that explains the meaning of map symbols.

Liquidity The ease and speed with which something can be turned into cash (e.g., one can more quickly sell a common stock than a house; therefore, the stock is a more liquid asset than a house).

Longitude Angular distance east or west, almost always measured with respect to the prime meridian that runs north and south through Greenwich, England.

Loyal Opposition The idea that opposition to a government is legitimate. Organized opponents to the government of the day.

Macroeconomics The branch of economics which considers the overall aspects and workings of a national economy such as national output, price levels, employment rates, and economic growth.

Magna Carta Document signed by King John of England in 1215 A.D. that limited the king's power and guaranteed certain basic rights. Considered the beginning of constitutional government in England.

Marginal Analysis Making decisions based on the impact of the next dollar spent or the change one more unit would bring about. For example, when a person doesn't make an all-or-nothing decision to eat a bag of potato chips but decides, instead, chip-by-chip, or at the margin, whether to eat another one.

Market Economic System A system in which most resources are owned by individuals and the interaction between buyers and sellers determines what is made, how it is made, and how much of it is made.

Market Price The price at which the quantity of goods and services demanded by consumers and the quantity supplied by producers are the same. This is sometimes called the equilibrium price.

Market Any setting in which exchange occurs between buyers and sellers.

Mayflower Compact The document drawn up by the Pilgrims in 1620, while on the Mayflower, before landing at Plymouth Rock. The Compact provided a legal basis for self-government.

Mercantilism An economic and political policy in which the government regulates the industries, trade, and commerce with the national aim of obtaining a favorable balance of trade.

Microeconomics The branch of economics concerned with the decisions made by individuals, households, and firms and how these decisions interact to form the prices of goods and services and the factors of production.

Monarchy A type of government in which political power is exercised by a single ruler under the claim of divine or hereditary right.

Monetary Policy Management of the money supply and interest rates to influence economic activity.

National Security Condition of a nation's safety from threats, especially threats from external sources.

Natural Hazard A process taking place in the natural environment that destroys human life, property, or both (e.g., hurricane, flooding).

Opportunity Cost The value of the next best alternative that must be given up when a choice is made (e.g., the opportunity cost of studying on a Saturday night is the fun you are missing by not going to the dance).

Price Ceilings Government policy which prevents the price of a good or service from exceeding a particular level (e.g., rent control or the price of gasoline during the 1970's).

Principle A basic rule that guides or influences thought or action.

Producers People who change resources into an output that tends to be more desirable than the resources were in their previous form (e.g., when people produce French fries, consumers are more inclined to buy them than the oil, salt, and potatoes individually).

Production Possibilities Curve The different combinations of various goods that a producer can turn out over a given period, given the available resources and existing technology.

Progressive Tax A tax structure where people who earn more are charged a higher percentage of their income (e.g., the federal income tax).

Projection A mathematical formula by which a geographic grid (and the shapes of land and water bodies) can be transferred from a sphere to a flat surface (e.g., a map or geographic information system).

Property Rights The rights of an individual to own property and keep the income earned from it.

Proportional Tax A tax structure where all people pay about the same percentage of their incomes in taxes (e.g., a flat rate tax).

Protectionism The practice of protecting domestic industries from foreign competition by imposing import duties or quotas.

Public Service Service to local, state, or national communities through appointed or elected office.

Quota A limit on how much of a good can be imported. The limit is set either by quantity or by the dollar value.

Ratify To confirm by expressing consent, approval, or formal sanction.

Referendum A form of direct democracy in which citizens of a state, through gathering signatures, can require that a legislative act come before the people as a whole for a vote. The process also allows the legislature to send any proposal for law to the people for a vote.

Region A larger-sized territory that includes many smaller places, all or most of which share similar attributes, such as climate, landforms, plants, soils, language, religion, economy, government or other natural or cultural attributes.

Regressive Tax A tax structure where people who earn more pay a smaller percentage of their income in taxes (e.g., sales taxes).

Representative Democracy A form of government in which power is held by the people and exercised indirectly through elected representatives who make decisions.

Republican Government A system of government in which power is held by the voters and is exercised by elected representatives responsible for promoting the common welfare.

Resources Land, labor, capital, and entrepreneurship used in the production of goods and services. A part of the natural environment that people value, such as soil, oil, iron or water.

Return How well you do by investing in one asset as opposed to another (e.g., if you buy a house in an up-and-coming neighborhood, you expect a better return when you sell it than if you buy a house next to where a new freeway is going to be built).

Revolution A complete or drastic change of government and the rules by which government is conducted.

Risk How much uncertainty accompanies your choice of investment (e.g., if you lend money to someone who has just escaped from prison, you are taking more of a risk than if you lend money to your mother).

Rule of Law The principle that every member of a society, even a ruler, must follow the law.

Scale The relationship between a distance on the ground and the distance on the map. For example, the scale 1:100,000 means that one unit of distance (e.g. an inch or millimeter) on the map equals 100,000 of these units on the Earth's surface.

Scarce A good or service that is insufficient in quantity to satisfy the demand or need for it.

Separation of Powers The division of governmental power among several institutions that must cooperate in decision making.

Sovereignty The ultimate, supreme power in a state (e.g., in the United States, sovereignty rests with the people).

Spatial Pertaining to distribution, distance, direction, areas and other aspects of space on the Earth's surface.

Specialization When a business focuses on producing a limited number of goods and leaves the production of other goods to other businesses. Specialization also describes how each person working to produce a good might work on one part of the production instead of producing the whole good (e.g., in a shoe factory one person cuts the leather, another person sews it, another glues it to the sole).

Standard of Living The overall quality of life that people enjoy.

Suffrage The right to vote.

Supply The quantity of a product or service a producer is willing and able to offer for sale at each possible price.

Tariff A tax on an imported good.

Thematic Map A map showing the distribution (or statistical properties) of cultural or natural features, such as a thematic map of unemployment or a thematic map of rainfall.

Theocracy Any government in which the leaders of the government are also the leaders of the religion and they rule as representatives of the deity.

Totalitarianism A centralized government that does not tolerate parties of differing opinion and that exercises dictatorial control over many aspects of life.

Treaty A formal agreement between sovereign nations to create or restrict rights and responsibilities. In the U.S., all treaties must be approved by a two-thirds vote in the Senate.

Unitary Government A government system in which all governmental authority is vested in a central government from which regional and local governments derive their powers (e.g., Great Britain and France, as well as the American states within their spheres of authority).

United Nations An international organization comprising most of the nations of the world, formed in 1945, to promote peace, security, and economic development.

Urbanization The process whereby more people live and work in cities.

Voluntary Exchange Trade between people when each one feels he or she is better off after the trade (e.g., if you sell your old exercise bike for cash, you gain because you would rather have the cash than the bike, but the other person gains because he or she would rather have the bike than the cash).

Technology Standards 2000

Foundations (Grades 1-3)

Technology Education Standards Rationale

Technology encompasses the tools and strategies for solving problems, using information, increasing productivity and enhancing personal growth. The word *technology* summons an image of a variety of tools ranging from shovels to gene splitters. When asked to develop the original Technology Standards, adopted in 1997, the Committee did so without the benefit of seeing the integration of various technologies into other curricular standards. Over the past four years, significant advances in technology have occurred. These changes have caused many national organizations to review what students need to know and be able to do in relation to technology. Therefore, when asked to review the current standards, the Revision Committee examined national standards (National Educational Technology Standards, Information Power, Information Technology in Education and Technology for All Americans), along with current Arizona standards. The Revision Committee also analyzed current research on technology skills important to business and industry. The Revision Committee reviewed technology that is currently integrated into other content area standards with the vision that as other standards are revised, technology will be seamlessly integrated.

The goal is to help students live, learn and work successfully and responsibly in an increasingly complex, technology-driven society. These Technology Standards are designed to provide foundational skills and processes that students need in order to work productively and creatively in their studies, at work and at home. Research on the transfer of learning strongly supports the position that instruction and educational activities should closely parallel the final desired behavior. It is essential that technology instruction be an integral part of a student's educational experience. Education's role is to help students meet the challenge of the future. Arizona must encourage, assist and provide all students with the required tools and instruction to enable them to acquire knowledge, develop skills and apply these tools successfully in our world.

The following definition of technology is supported in this document:

Technology is the application of tools to solve problems that extend human potential for the benefit of society

Table 1: Technology Education Standards

***STANDARD 1*: Fundamental Operations and Concepts**

Students understand the operations and function of technology systems and are proficient in the use of technology.

***STANDARD 2*: Social, Ethical and Human Issues**

Students understand the social, ethical and human issues related to using technology in their daily lives and demonstrate responsible use of technology systems, information and software.

***STANDARD 3*: Technology Productivity Tools**

Students use technology tools to enhance learning, to increase productivity and creativity and to construct technology-enhanced models, prepare publications and produce other creative works.

***STANDARD 4*: Technology Communications Tools**

Building on productivity tools, students will collaborate, publish, and interact with peers, experts and other audiences using telecommunications and media.

***STANDARD 5*: Technology Research Tools**

Students utilize technology-based research tools to locate and collect information pertinent to the task, as well as evaluate and analyze information from a variety of sources.

***STANDARD 6*: Technology as a Tool for Problem Solving and Decision-making**

Students use technology to make and support decisions in the process of solving real-world problems.

TECHNOLOGY EDUCATION STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

STANDARD 1: FUNDAMENTAL OPERATIONS AND CONCEPTS

Students understand the operations and function of technology systems and are proficient in the use of technology.

- **1T-F1. Communicate about internal technology operations using developmentally appropriate and accurate terminology**

  See: Language Arts (VP-F), Science (1SC-F4, PO1-2) and Workplace Skills (1WP-F5)[*]

  PO 1. Apply basic vocabulary related to the internal operations of the technology (e.g., disks, drives, RAM, ROM, CD-ROM port, CD-ROM and DVD)

- **1T-F2. Demonstrate functional operation of technology components**

  See: Comprehensive Health {Physical Activities} (1PA-F1) and Workplace Skills (7WP-F2)

  PO 1. Demonstrate correct ergonomic use of technology (e.g., correct posture, position of hands and feet, proper height of keyboard, proper lifting and moving of equipment)
  PO 2. Use multimedia resources (e.g., interactive books, educational software, elementary multimedia encyclopedias)
  PO 3. Access information sources (e.g., CD-ROMs, encyclopedias, pre-bookmarked Internet sites)
  PO 4. Communicate electronically, under teacher supervision (e.g., video, audio, e-mail)

  For Internet safety protocols see Technology 2T-F2, PO1

[*]*The use of cross-references to the other Arizona Academic Standards is intended to emphasize that technology is seen as an **integrated** component of the educational and learning process. Teachers may find additional opportunities for integrating the Technology Standards with other academic standards.*

- **1T-F3. Use developmentally appropriate technology resources to access information and communicate electronically**

  See: Language Arts (VP-F), Mathematics (1M-F7) and Workplace Skills (7WP-F1)

  PO 1. Operate keyboard and other common input and output devices (including adaptive devices for special needs when necessary)
    a) Use device in response to software (e.g., point and click, arrow and enter/return keys)
    b) Use keyboard effectively (e.g., knows locations and function of keys, begins touch-typing strategies by grade three)

  PO 2. Retrieve and save information (e.g., text documents, digital photos, music, video)

  PO 3. Print documents, text or image

STANDARD 2: SOCIAL, ETHICAL AND HUMAN ISSUES

Students understand the social, ethical and human issues related to using technology in their daily lives and demonstrate responsible use of technology systems, information and software.

- **2T-F1. Demonstrate respect for other students while using technology**

  See: Social Studies (2SS-F3, PO1-3)

  PO 1. Describe and practice respect for other students while using technology (e.g., do not duplicate software or documents without authorization; report behaviors that threaten the ability of others to legitimately use resources; allow peers to work uninterrupted; do not erase or damage files, documents or projects)

- **2T-F2. Practice responsible use of software**

  PO 1. Use equipment appropriately (e.g., use for assignments and school work versus personal pleasure; do not send threats)

  PO 2. Describe and practice legal and ethical behaviors when using technology (e.g., do not copy, alter, delete or move another person's work)

  PO 3. Demonstrate and practice safe and correct security procedures (e.g., protect password)

- **2T-F3. Discuss common uses of technology in daily life and the advantages and disadvantages those uses provide**

  See: Comprehensive Health (4CH-F2), Science (3SC-F4), Social Studies (4SS-F2, PO4)

  PO 1. Describe three-to-five uses of technology in daily life
  PO 2. Discuss the positive and negative impact of technologies such as television and computers on daily life (e.g., negative health impact; safe Internet use, such as knowing what information is safe to share when using e-mail, "talking" to strangers)

STANDARD 3: TECHNOLOGY PRODUCTIVITY TOOLS

Students use technology tools to enhance learning, to increase productivity and creativity, and to construct technology-enhanced models, prepare publications and produce other creative works.

- **3T-F1. Use prescribed technology writing or drawing tools for communicating and illustrating**

  See: Language Arts (W-F1, PO5), Science (6SC-F7) and Social Studies (1SS-F1)

  PO 1. Use word processing to create a document and, where developmentally appropriate, use editing tools
  PO 2. Insert a graphic into a word processing document

- **3T-F2. Use prescribed technology tools for data collection and basic analysis**

  See: Mathematics 2M-F1 and 2M-F2)

  PO 1. Use a spreadsheet or database application to perform simple data analysis (e.g., comparisons, collections, graphs and charts)

- **3T-F3. Use prescribed technology tools for publishing and presenting information**

  PO 1. Use a pre-designed template or stationery to publish a document (e.g., newsletter, slide show, greeting card, certificate)
  PO 2. Create a multimedia product with support from teachers, family or student partners (e.g., slide show, hyperstack, video)

STANDARD 4: TECHNOLOGY COMMUNICATIONS TOOLS

Building on productivity tools, students will collaborate, publish, and interact with peers, experts and other audiences using telecommunications and media.

- **4T-F1. Communicate with others using telecommunications, with support from teachers, family members or student partners**

  See: Language Arts (W-F4)

  PO 1. Communicate information electronically with support from teachers, family members or student partners (e.g., e-mail, videoconferencing, Web page)

- **4T-F2. Use technology tools for individual and collaborative communication activities to share products with audiences inside and outside the classroom**

  See: Language Arts (W-F1)

  PO 1. Plan, design, and present an academic product to classroom or community (e.g., slide show, progressive story, drawings, story illustrations, video production, digital images)

STANDARD 5: TECHNOLOGY RESEARCH TOOLS

Note: The performance objectives described in Standard 5 rely upon the mastery of skills and understanding of concepts from Standards 1-4 of this document

Students will utilize technology-based research tools to locate and collect information pertinent to the task as well as evaluate and analyze information from a variety of sources.

- **5T-F1. Recognize electronic information sources**

  See: Arts {Theatre} (2AT-F1), Language Arts (W-F5) and Workplace Skills (7WP-E2)

  PO 1. Identify potential sources of information about a topic (e.g., video or cassette tapes, Web pages, CD-ROMs)
  PO 2. Locate information in a resource selected by the teacher (e.g., Web page, CD-ROM)

STANDARD 6: TECHNOLOGY AS A TOOL FOR PROBLEM SOLVING AND DECISION-MAKING

Students use technology to make and support decisions in the process of solving real-world problems.

Note: Problem solving is inherent in all disciplines. Technology Standard 6 is designed to provide a cumulative (capstone) experience

- **6T-F1. Use technology resources for problem solving, self-directed learning and extended learning activities**

  See: Science 3SC in its entirety and Workplace Skills 3WP in its entirety

  PO 1. Based on a class-defined problem, use technology to:
  a) collect data
  b) interpret data
  c) express a solution to the problem

  PO 2. Based on a problem selected by the student, use technology to:
  a) collect data
  b) interpret data
  c) express a solution to the problem

TECHNOLOGY EDUCATION GLOSSARY

Acceptable Use Agreement/Policy (AUA or AUP)

A form that is signed by an individual, and when appropriate, legal guardian/parent, that acknowledges responsible behavior and use for the technology provided by the district, including the legal implications of the use of the Internet.

Adaptive Devices

Devices that help people with visual impairments, hearing losses, severe speech impairments, physical disabilities and/or severe learning disabilities cope with demands that are placed upon them from their environment. (See also Assistive Technology)

Assistive Technology

Any item, piece of equipment or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain or improve the functional capabilities of children with disabilities. (Federal Register, August 19, 1991, p. 41272.) (See also Adaptive Devices)

Alternative Keyboard

A self-contained word processing device with full-size keyboard and memory that allows editing, printing or direct transfer to a computer for storage and manipulation (brand names, e.g., AlphaSmart, Dream Writer).

Bit

A contraction of binary digit. It is the smallest unit of storage in a computer. The bit is represented by a zero (0) or one (1) for information; instructions and data may be represented by sets of bits. Compare byte.

Bookmark

A marker that allows a user to identify a site on the Internet to allow rapid access. Also, a marker that allows a user to mark a place in a word processing document.

Boolean (also Boolean Operator)

A system of logic that, when applied to searches, modifies search terms with the "operators" AND, OR and NOT. Boolean operators allow you to broaden or narrow the range of your search.

Browser

An application that allows people to scan and interact with a network. Netscape and Internet Explorer are examples of browsers.

Byte

A set of bits, typically eight, that comprises the smallest accessible unit in computer memory. It is the equivalent of one letter or one digit from 0 to 9.

CD (Compact Disc - Player/Reader)

A device attached to a computer that provides access to information such as encyclopedias, dictionaries, databases or music. These are devices that allow users to store or write to a CD.

CD-ROM (Compact Disc – Read Only Memory)

A CD-ROM format used to store large amounts of information. A flat round disc that is used to store digital data. The disc is read by a laser. You can only read information on a CD. You cannot record information on a CD.

Click

To press and release a mouse or trackball button once while the cursor is stationary.

Clip Art

Graphics that can be cut and pasted electronically into documents. Clip art can be photographs, diagrams, maps, illustration or cartoons.

Clipboard

A special file or memory area (buffer) where data is stored temporarily before being copied to another location. In Microsoft Windows and the Apple Macintosh operating systems, the Clipboard can be used to copy data from one application to another. The Macintosh uses two types of clipboards. The one it calls the Clipboard can hold only one item at a time and is flushed when you turn the computer off. The other, called the Scrapbook, can hold several items at once and retains its contents from one working session to another.

Copyright guidelines

Intellectual Property Rights (copyright) are guaranteed by the U.S. Constitution and Federal law. These protect the individual who produces creative works from the theft of their work by others. Within the U.S. (not necessarily a part of any international copyright agreements), Fair Use Guidelines provide limited privileges to educators. Legal citation: http://lcweb.loc.gov/. There are a number of additional sites that have helpful information on this topic, including: http://literacy.kent.edu/Oasis/Workshops/copytoc.html.

CPU (Central Processing Unit)

The CPU is the brains of the computer. Sometimes referred to simply as the processor or central processor, the CPU is where most calculations take place. In terms of computing power, the CPU is the most important element of a computer system.

Cropping

Used in computer graphics, cropping is a method used to cut off the sides of an image to make it the proper size or to remove unwanted parts. Most graphics applications allow you to crop images with a clip feature.

Cut

1) removes highlighted item and places a copy of it on the clipboard.
2) A process of replacing a video picture with another instantaneously, or making an abrupt change of image or sound.

Database

A collection of data arranged into categories. These can then be manipulated by the user to create reports.

Delete

Removing a character, word, line, paragraph or other specified amount of text from a document.

Digital Camera

A hardware product that captures an image and sends it to a computer.

Digital Photo

An image that is stored in bits and bytes on a computer. It can be manipulated and displayed on a computer screen.

Disc

A term used when referring to a compact disc or laser disc on which information is stored optically.

Disk

Media that stores computer information. There are two basic types: hard disks (or drives) and floppy disks.

Document

A file created by a program.

Drag

To hold down a mouse button while moving the mouse. It is a way to move objects, resize borders and objects or select text in blocks.

Drive

Any device that reads and writes information, such as a hard drive, floppy drive, CD ROM drive or tape drive.

Drawing Tools/Program

Software used to create any type of drawing, from a simple line sketch to a magnificent full-color poster. Drawing programs are used by graphic artists and designers.

E-mail (Electronic Mail)

The electronic transmission of letters, documents, messages and memos from one computer to another over a network.

Electronic Card Catalog

A computer-based version of the traditional library card catalog. A patron uses a computer to type in or select pre-determined search strategies to access items in a library's holdings.

Encryption Software

Encryption software puts data into a secret code so it is unreadable, except by authorized users. The most common form is public encryption, which is a way of encrypting messages in which each user has a public key and a private key. Messages are sent encrypted with the receiver's public key; the receiver decrypts them using the private key. Using this method, the private key never has to be revealed to anyone other than the user.

Enter Key/Return Key

A key located at the right end of the third row from the bottom on a keyboard. Pressing the Enter key performs a typed or highlighted command. In word processing, the Enter key starts a new paragraph.

Erase Disk

On the Macintosh, the term for formatting or initializing a disk.

Ergonomics

Science of body positioning to reduce physical, mental and emotional stress on the individual.

Ethernet

The most commonly used technology for networking computers.

Fair Use Guidelines

Support for educators and educational institutions within compliance of U.S. Intellectual Property Rights laws (copyright), Fair Use is an agreement between industry (copyright holders), education and the government allowing limited use without purchase of materials. http://fairuse.stanford.edu/

Filter

A device or program that separates data or signals in accordance to specific criteria. Currently, educational institutions are required to have some form of filter between students and the Internet. Compare to firewall.

Firewall

A system designed to prevent unauthorized access to or from a private network. Firewalls can be implemented in both hardware and software, or a combination of both, and are frequently used to prevent unauthorized Internet users from accessing private networks connected to the Internet, especially intranets. All messages entering or leaving the intranet pass through the firewall, which examines each message and blocks those that do not meet the specified security criteria. There are several types of firewall techniques: packet filters, application gateways, circuit-level gateways and proxy servers.

FireWire

Industry standard. A "bus" (device) that can move large amounts of data between computers and peripheral devices. Manufacturers of multimedia devices use this technology because it speeds up the movement of multimedia data and large files, and enables the connection of digital devices (e.g., digital camcorders, digital video tapes and music systems) directly to a personal computer.

Floppy Disk Drive

A device used to write and read data to a floppy disk and transfer the information to the computer's memory.

Floppy Disk

A 3.5 inch removable disk that's flexible (although it's protected by a hard plastic case). Also called a diskette. Compare disk.

Flow chart

A flow chart is a graphical representation of a computer program or order of operations. The process of flow charting includes defining the project, determining the steps in the project, creating a graphical representation, and testing assumptions about the project (or process).

Folder

In graphical user interfaces such as Windows and the Macintosh environment, a folder is an object that can contain multiple documents. Folders are used to organize information.

Font

A single style of typeface and size (e.g., Times New Roman, 12pt).

Format/Formatting

1) (noun) The layout, presentation or arrangement of data on a screen or paper.
2) (verb) The process whereby a disk is made ready for storing data by organizing the surface into tracks and sectors. Synonymous with initialization. Compare Erase Disk.

FTP (File Transfer Protocol)

A method of transferring files between computers connected to the Internet.

GPS (Global Positioning System)

A system of satellites that transmit continually, which make it possible to identify each location through a receiving unit, by triangulation.

Graphic Calculator

A calculator that allows the user to program in a formula to present data visually in graph or chart form.

Graphic Organizer

Software that visually organizes the thought or creative process. Also known as storyboard software, these combine both icons (graphics) and text to give structure and logic to a project or presentation.

GUI (Graphical User Interface)

A program interface that takes advantage of the computer's graphics capabilities to make the program easier to use.

Hacking

Attempts to gain unauthorized entry into a computer system or network.

Hard Drive

The primary storage device for your computer. Also called hard disk. It is where applications, utilities and files are stored.

HTML (HyperText Markup Language)

A programming language for creating pages on the World Wide Web.

Hyperlink, Hypermedia, Hyperstack

Hyper – multi-dimensional. Media – text, graphics, sound, animation and video. Hypermedia was originally coined to describe how different forms of information can be linked in a non-linear fashion. Users move from one group of information to another by clicking on text or graphics on a computer screen. These "hyperlinks" allow users to individualize the way they move through and process the information being presented to them.

Initialization

The process whereby a disk is made ready for storing data by organizing the surface into tracks and sectors. Synonymous with formatting. Compare Erase Disk.

Input Device

A machine through which data and instructions are entered into the computer's main memory. A mouse, a graphics tablet, and detachable keyboards are examples of input devices.

Intelligent Agents

Programs, used extensively on the Web, that perform tasks such as retrieving and delivering information and automating repetitive tasks. Agents are designed to make computing easier. Currently they are used as Web browsers, news retrieval mechanisms and shopping assistants. By specifying certain parameters, agents will "search" the Internet and return the results directly back to the user's PC. Some intelligent agents are also used as tools to track Web behavior; they can even "watch" as the user surfs the 'Net and record how often he/she visits a certain site. Later, they can be used to automatically download the user's favorite sites, letting the user know when a favorite site has been updated, and even tailoring specific pages to suit the user's tastes.

Interactive

Refers to an application or system that provides information in response to the user's input.

Internet

A global communications network that is a collaborative effort among educational institutions, government agencies, various commercial and nonprofit organizations, and individual users. The Internet allows three primary functions: communications (e-mail and news), retrieval of information and transferring files (FTP).

Intranet

The term used for the implementation of Internet technologies (communications protocol/mail/file transfer/Web browsing/user interfaces/terminal emulation) within an organization, to enhance the organization's operation, efficiency, and development by providing all organizational resources to each employee's desktop with minimal cost and time. Intranets connect the different types of computers on a network, thus providing for open standards which allows flexibility.

Keyboard

The main input device for computers. Keyboards are derived from the typewriter but have additional keys that enhance their function.

Keyword Searching

A keyword is a predefined word or set of words that identifies a specific record or document. A keyword search uses these keywords to locate information in a database or on the Internet.

LAN (Local Area Network)

Programs, storage and graphic devices at multiple computer workstations over relatively small geographic areas for rapid communication. Compare WAN.

Menu

A list of commands or options from which choices are made. Most applications now have a menu-driven component.

Merge

In word processing, when information from a table or database is inserted into a document. In a spreadsheet, the combining of more than one cell to create a single cell.

Monitor

A screen used to display the data received from a processor, or data transmitted to the processor. A computer monitor does not have facilities to receive broadcast signals or process sound. A video monitor can receive broadcast signals and process sound.

Mouse

A pointing device for moving the cursor on the screen.

Netiquette

The rules of etiquette on the Internet.

Network

A collection of computers that are linked together for the purpose of sharing information.

OCR (Optical Character Recognition)

OCR involves reading text from paper and translating the images into a form that the computer can manipulate (for example, into ASCII codes). An OCR system enables the scanning of a book or a magazine article, feeding it directly into an electronic computer file, and then editing the file using a word processor.

Online

A common term used to refer to being connected to the Internet.

Output Device

A peripheral through which information from the computer is communicated to the outside world; for example, a display screen, printer or speakers.

Password

A code word of letters and/or numbers that allows a user to gain access to a secured system or piece of information. Compare to PIN.

Paste

A command that inserts text or graphics from the clipboard to the document at the location of the cursor. Requires that an item first be placed on the clipboard using Copy or Cut commands.

Peripheral

A device that can communicate directly with a computer, such as printers, scanners, cameras, CD-ROMs and laserdisc players.

PDA (Personal Digital Assistant)

A pocket-sized personal computer. PDAs usually can store phone numbers, appointments, and to-do lists. Some PDAs have a small keyboard, others have only a special pen that is used for input and output. A PDA can also have a wireless fax modem. Files can be created on a PDA which are later entered into a larger computer.

PIN (Personal Identification Number)

A privileged code that allows a user to gain access to a secured system or piece of information. May be assigned by the system operator or selected by the user. Compare Password.

Point and Click

A method of interacting with a computer using the mouse. The user moves a cursor on the screen based on the corresponding movement of the mouse. When the mouse is over the desired graphic or text on the computer screen, the mouse button is pressed or "clicked" to start a desired action.

Port

An interface on a computer used to connect a device. Personal computers have various types of ports. Internally, there are several ports for connecting disk drives, display screens and keyboards. Externally, personal computers have ports for connecting modems, printers, mice and other peripheral devices.

Preference

The selecting of one thing over another. In computer terms, it is a section of the operating system or software application that can be set as a "default."

Presentation Device

One of several devices that can be connected to a computer to display information to an audience. The most common devices are video projection units and video converters for television monitors.

Probe/Probeware

Probe: A variety of devices that can be connected to a computer or graphing calculator to collect data.

Probeware: The software that allows the probe or probes to interface with the computer or calculator.

RAM (Random Access Memory)

Memory used to run the operating system and applications in a computer. The more RAM a computer has, the more applications it can run simultaneously. The operating system and other software are *stored* on the computer's hard disk, but they *run* in RAM. Data stored in RAM is lost when the computer is turned off.

Remote Control

A wireless device used to control a piece of electronic equipment such as a television, tape or CD player, stereo or video camera.

ROM (Read Only Memory)

System memory not available to user, but used by the operating system. This memory is programmed only once by the manufacturer and cannot be changed.

Scanner

A device for converting text or graphics displayed on a sheet of paper into a digital image you can display on your computer screen and use with certain applications.

Scientific Probe/Science Probe

See probe/probeware

Search Engines

A program that searches documents for specified keywords and returns a list of the documents where the keywords were found. Although *search engine* is really a general class of programs, the term is often used to specifically describe systems like Alta Vista and Excite that enable users to search for documents on the World Wide Web and USENET newsgroups. Typically, a search engine works by sending out a spider to fetch as many documents as possible. Another program, called an indexer, reads these documents and creates an index based on the words contained in each document. Each search engine uses a proprietary algorithm to create its indices such that, ideally, only meaningful results are returned for each query.

Serial

One-by-one. Serial data transfer refers to transmitting data one bit at a time. The opposite of serial is parallel, in which several bits are transmitted concurrently.

Server

A computer that provides shared, centralized resources (such as files, e-mail, databases, modems and printers) to other computers on the network.

Simulation
An electronic imitation. SimCity is a game in which a simulation of a real city is created on a computer.

Software
The instructions that tell a computer what to do.

Sort
To place, separate or arrange according to common characteristics.

Spam
Unsolicited, unwanted junk e-mail with wide distribution.

Spell Check
A feature built into many applications that allows the user to check for spelling errors or look for synonyms.

Spreadsheet
Spreadsheets applications (sometimes referred to simply as spreadsheets) are computer programs that let you create and manipulate spreadsheets electronically. In a spreadsheet application, each value sits in a cell. Data can be defined in each cell and how different cells depend on one another. The relationships between cells are called formulas, and the names of the cells are called labels.

Streaming (Web Streaming)
Playing audio or video immediately as it is downloaded from the Internet, rather than storing it in a file on the receiving computer first. Streaming is accomplished by way of Web browser plug-ins, which decompress and play the file in real time; a fast computer and fast connection are necessary.

TCP-IP (Transmission Control Protocol/Internet Protocol)
The suite of communications "rules" used to connect hosts on the Internet.

Text
The letters or words of a written work.

Text Support Software
Materials available from a textbook publisher that support, supplement or replace print content for students. These may be on-line, in disk or CD-ROM format.

Text Wrap
A feature supported by many word processors that enables you to surround a picture or diagram with text. The text wraps around the graphic. Text wrap is also called text flow.

Undo

A command within many applications that reverses the most recent thing you did in the application.

URL (Uniform Resource Locator)

The global address of documents and other resources on the World Wide Web. The first part of the address indicates what protocol to use, and the second part specifies the IP address or the domain name where the resource is located.

USB (Universal Serial Bus)

A personal computer bus which can support up to 127 peripheral devices in a daisy chain configuration, and has a total bandwidth of l.5 megabytes per second. It uses inexpensive cable, which can be up to 5 meters long.

VCR

An analog video tape player and recorder which is usually connected to a television monitor to record or play tapes. One-half inch (1/2") video tape is the most commonly used format

Video

A visual recording of information.

Videoconferencing

Conducting a conference between two or more participants at different sites by using computer networks to transmit audio and video data. For example, a *point-to-point* (two person) videoconferencing system works much like a video telephone. Each participant has a video camera, microphone and speakers mounted on his/her computer. As the two participants speak to one another, their voices are carried over the network and delivered to the other's speakers and whatever images appear in front of the video camera appear in a window on the other participant's monitor. *Multipoint* videoconferencing allows three or more participants to sit in a virtual conference room and communicate as if they were sitting right next to each other.

Visualization

A variety of software packages that allows students to create a model of a real world system. These models are often three-dimensional in nature.

Virus

A program that infects and replicates itself in computer files, spreading from computer to computer. Some viruses can be relatively harmless, simply displaying a message on the screen. Other viruses can be extremely damaging, crashing the hard drive so all data is lost.

WAN (Wide Area Network)

A network that spans geographically separated areas, usually by using models and dedicated, high-speed telephone lines. Compare LAN.

Web Page

One page of a document on the World Wide Web. A Web page is usually a file written in Hypertext Markup Language (HTML), stored on a server. A Web page usually has links to other Web pages. Each Web page has its own address called a Uniform Resource Locator (URL) in the form: http://www.name.com/directory/page.htm.

Web Site

A site (location) on the World Wide Web. Each Web site contains a home page, which is the first document users see when they enter the site. The site might also contain additional documents and files. Each site is owned and managed by an individual, company or organization.

Wizard

A Microsoft term for pre-designed elements of a software package. Will "ask questions" and assist in the design of a document. For example, a "letter wizard," within a word processing application, would lead the user through the steps of producing different types of correspondence. (May also refer to an outstanding programmer or a system administrator.) Compare to Assistant in Macintosh.

Word Processor

Software that allows you to enter, edit and format text. Some software will allow the use of graphics.

Web or WWW (World Wide Web)

A global hypertext network that is part of the Internet. It is normally viewed through a browser that provides a Graphical User Interface.

Note: Many of these definitions were found at http://webopedia.internet.com

Workplace Skills 1997

Foundations (Grades 1-3)

Workplace Skills Standards Rationale

Most students will spend more than a third of their lives in a diverse and constantly changing workplace. Regardless of personal, career, or educational plans, students must demonstrate proficiency both in academics and the following workplace standards.

The Workplace Skills Standards are designed to be integrated into the traditional curriculum taught in schools at all levels and are most effectively learned in the context of an integrated effort involving parents, educators, business partners and members of the community. Student acquisition of critical workplace skills, with an emphasis on application, is a developmental process which encompasses an individual's entire lifetime. The demonstration of these skills is essential for individuals and contributes to the foundation of an educated citizenry.

Table 1. Workplace Skills Standards

STANDARD 1

Students use principles of effective oral, written and listening communication skills to make decisions and solve workplace problems.

STANDARD 2

Students apply computation skills and data analysis techniques to make decions and solve workplace problems.

STANDARD 3

Students apply critical and creative thinking skills to make decisions and solve workplace problems.

STANDARD 4

Students work individually and collaboratively within team settings to accomplish objectives.

STANDARD 5

Students demonstrate a set of marketable skills which enhance career options.

STANDARD 6

Students illustrate how social, organizational and technological systems function.

STANDARD 7

Students demonstrate technological literacy for productivity in the workplace.

STANDARD 8

Students apply principles of resource management and develop skills that promote personal and professional well-being.

WORKPLACE SKILLS STANDARDS
BY LEVEL: FOUNDATIONS (Grades 1-3)

STANDARD 1

Students use principles of effective oral, written and listening communication skills to make decisions and solve workplace problems.

- **1WP-F1. Describe how the five senses are used in communications**

  PO 1. Identify the five senses
  PO 2. Provide examples of each sense in action

- **1WP-F2. Respond to oral presentations by formulating relevant questions and opinions and summarizing accurately**

  PO 1. Recognize the content of an oral presentation
  PO 2. Ask questions relating to content
  PO 3. State opinions relating to content
  PO 4. Develop summary of relevant content

- **1WP-F3. Apply critical listening skills (e.g., listening for content, long-term contexts, emotional meaning, following directions)**

  PO 1. Listen effectively
  PO 2. Analyze/evaluate orally received information
  PO 3. Respond appropriately

- **1WP-F4. Listen to an oral presentation, evaluate, and express an opinion orally**

  PO 1. Recognize the content of an oral presentation
  PO 2. Develop summary of relevant content

- **1WP-F5. Share ideas, opinions and information with a group, choosing vocabulary that communicates messages clearly, precisely and effectively**

  PO 1. Participate in groups
  PO 2. Speak to a group
  PO 3. Share writing with a group

- **1WP-F6. Write communications that have a definite audience and clear purpose, are well-organized, and use appropriate conjunctions and transition words to tie ideas together**

- **1WP-F7. Determine the main idea or essential message of a text**

  PO 1. Identify the main idea and relevant facts in a reading selection
  PO 2. Sequence a series of events from a reading selection
  PO 3. Compare characters (e.g., traits, roles, similarities, differences) in a reading selection
  PO 4. Identify the author's main purpose (e.g., to inform, to entertain, to persuade, to describe) in a reading selection

STANDARD 2

Students apply computation skills and data analysis techniques to make decisions and solve workplace problems.

Note: The Foundations Level is central to preparation for the workplace and is adequately covered in the Mathematics Standards document.

- **2M-F1. Collect and analyze data using the concepts of largest, smallest, most often, least often and middle**

  PO 1. Collect and record data from surveys (e.g., favorite color or food, height, ages) or experiments
  PO 2. Organize (e.g., sorting, sequencing, tallying) information from surveys or experiments
  PO 3. Identify largest, smallest, most often recorded (i.e., mode), least often and middle (i.e., median) using sorted data
  PO 4. Formulate questions from organized data

STANDARD 3

Students apply critical and creative thinking skills to make decisions and solve workplace problems.

- **3WP-F1. Address a specific problem by specifying their goals, devising alternative solutions, considering the risks of each and choosing the best course of action**

  PO 1. Apply problem solving techniques to determine a solution
  PO 2. Identify methods of initiating change
  PO 3. Define a variety of creative thinking skills
  PO 4. Practice a variety of creative thinking skills to identify potential solutions to workplace issues
  PO 5. Identify the need for data, obtaining it from existing sources such as the library, on-line databases or field research
  PO 6. Describe possible solutions to a variety of problems

- **3WP-F2. Identify methods for initiating change**

  PO 1. Give examples of methods to initiate change

- **3WP-F3. Define a variety of creative thinking skills**

  PO 1. Use creative thinking skills in a variety of situations

- **3WP-F4. Practice a variety of creative thinking skills to identify potential solutions to workplace issues**

  PO 1. Identify ways of using creative thinking skills
  PO 2. Apply creative thinking skills to solve workplace issues

- **3WP-F5. Identify the need for data, obtaining it from existing sources such as the library, on-line databases or field research**

  PO 1. Define data, database, library and data sources, and field research
  PO 2. Apply data from existing sources, such as: the library, on-line database and field research

- **3WP-F6. Describe possible solutions to a variety of problems**

  PO 1. Identify possible solutions to a variety of problems
  PO 2. Apply problem solving techniques to determine a solution

STANDARD 4

Students work individually and collaboratively within team settings to accomplish objectives.

- **4WP-F1. Understand and demonstrate the importance of dependability, trust-worthiness, productivity and initiative in all areas of life and when interacting with others**

  PO 1. Demonstrate characteristics of positive behavior
  PO 2. Identify roles of team members
  PO 3. Interact collaboratively to obtain team results

- **4WP-F2. Identify the difference between decisions and accomplishments made by individuals and groups**

  PO 1. Compare individual versus group decisions
  PO 2. Compare individual versus group accomplishments

- **4WP-F3. Demonstrate teamwork skills by contributing ideas, suggestions and effort; resolving conflicts; and handling peer pressure**

  PO 1. Demonstrate skills necessary for positive group dynamics

- **4WP-F4. Recognize and participate in leadership roles**

  PO 1. Describe leadership
  PO 2. Give examples of leadership roles
  PO 3. Practice leadership roles

STANDARD 5

Students will demonstrate a set of marketable skills that enhance career options.

- **5WP-F1. Explore areas of interests and possible work choices**

  PO 1. Define "areas of interest"
  PO 2. Describe work choices
  PO 3. Discuss how interests can relate to work choices

- **5WP-F2. Demonstrate ability to make decisions which contribute to a productive school and work ethic**

  PO 1. Demonstrate being dependable, trustworthy, and productive while at school
  PO 2. Practice decision-making process

- **5WP-F3. Demonstrate basic academic skills in reading, writing, listening, speaking and mathematics**

STANDARD 6

Students illustrate how social, organizational and technological systems function.

Definition: A system equals an organized framework made up of interrelated components acting together as a whole, in which a change in one component may affect the entire operation. Examples of systems are social (e.g., family, school) and technological (e.g., local area network, telephone).

- **6WP-F1. Identify the components and how they fit together in community and social systems**

  PO 1. Discuss the relationship between systems in your community (e.g., family, school, social, technological)

STANDARD 7

Students demonstrate technological literacy for productivity in the workplace.

- **7WP-F1. Identify the many uses of technology**

  PO 1. Give examples of the many uses of technology

- **7WP-F2. Use technology to access information, demonstrating basic computer skills (e.g., pull-down menus, icons, passwords, key word searches)**

  PO 1. Define/discuss/give examples of technology
  PO 2. Operate developmentally appropriate technologies to access information

STANDARD 8

Students apply principles of resource management and develop skills that promote personal and professional well-being.

- **8WP-F1. Understand the relationship between the goal-setting process and the allocation of time, money, material and human resources**

  PO 1. Define/discuss relationship between goal-setting and allocation of resources

- **8WP-F2. Plan class time to accomplish schoolwork goals**

  PO 1. Plan class time to accomplish schoolwork goals