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English Language Arts

(Elementary)

Standard 1- Language for Information and Understanding

Listening and Reading

- 1A. Students gather and interpret information from children's reference books, magazines, textbooks, electronic bulletin boards, audio and media presentations, oral interviews, and from such forms as charts, graphs, maps and diagrams.
- 1B. Students select information appropriate to the purpose of their investigation and relate ideas from one text to another.
- 1C. Students select and use strategies they have been taught for note taking, organizing, and categorizing information.
- 1D. Students ask specific questions to clarify and extend meaning.
- 1E. Students make appropriate and effective use of strategies to construct meaning from print, such as prior knowledge about a subject, structural and context clues, and an understanding of letter-sound relationships to decode difficult words.
- 1F. Students support inferences about information and ideas with reference to text features, such as vocabulary and organizational patterns.

- 2A. Students present information clearly in a variety of oral and written forms such as summaries, paraphrases, brief reports, stores, posters, and charts.
- 2B. Students select a focus, organization, and point of view for oral and written presentations.
- 2C. Students use a few traditional structures for conveying information such as chronological order, cause and effect, and similarity and difference.
- 2D. Students use details, examples, anecdotes, or personal experiences to explain or clarify information.
- 2E. Students include relevant information and exclude extraneous material.
- 2F. Students use the process of pre-writing, drafting, revising, and proofreading (the "writing process") to produce well-constructed informational texts.
- 2G. Students observe basic writing conventions, such as correct spelling, punctuation, and capitalization, as well as sentence and paragraph structures appropriate to written forms.

English Language Arts

(Elementary)

Standard 2- Language for Literary Response and Expression

Listening and Reading

- 1A. Students read a variety of literature of different genres: picture books; poems; articles and stories from children's magazines, fables, myths and legends; songs, plays and media productions; and works of fiction and nonfiction intended for young readers.
- 1B. Students recognize some features that distinguish the genres and use those features to aid comprehension.
- 1C. Students understand the literary elements of setting, character, plot, theme, and point of view and compare those features of other works and to their own lives.
- 1D. Students use inference and deduction to understand the text.
- 1E. Students read aloud accurately and fluently, using phonics and context cues to determine pronunciation and meaning.
- 1F. Students evaluate literary merit.

- 2A. Students present personal responses to literature that make reference to the plot, characters, ideas, vocabulary, and text structure.
- 2B. Students explain the meaning of literary works with some attention to meanings beyond the literal level.
- 2C. Students create their own stories, poems, and songs using the elements of the literature they have read and appropriate vocabulary.
- 2D. Students observe the conventions of grammar and usage, spelling, and punctuation.

English Language Arts

(Elementary)

Standard 3- Language for Critical Analysis and Evaluation

Listening and Reading

- 1A. Students read and form opinions about a variety of literary and informational texts and presentations, as well as persuasive texts such as advertisements, commercials, and letters to the editor.
- 1B. Students make decisions about the quality and dependability of texts and experiences based on some criteria, such as the attractiveness of the illustrations and appeal of the characters in a picture book, or the logic and believability of the claims made in an advertisement.
- 1C. Students recognize that the criteria that one uses to analyze and evaluate anything depends on one's point of view and purpose for the analysis.
- 1D. Students evaluate their own strategies for reading and listening critically (such as recognizing bias or false claims, and understanding the difference between fact and opinion) and adjust those strategies to understand the experience more fully.

- 2A. Students express opinions (in such forms as oral and written reviews, letters to the editor, essays, or persuasive speeches) about events, books, issues and experiences, supporting their opinions with some evidence.
- 2B. Students present arguments for certain views or actions with reference to specific criteria that support the argument (e.g., an argument to purchase a particular piece of playground equipment might be based on the criteria of safety, appeal to children, durability, and low cost.)
- 2C. Students monitor and adjust their own oral and written presentations to meet criteria for competent performance (e.g., in writing, the criteria might include development of position, organization, appropriate vocabulary, mechanics, and neatness. In speaking, the criteria might include good content, effective delivery, diction, posture, poise, and eye contact.)
- 2D. Students use effective vocabulary and follow the rules of grammar, usage, spelling, and punctuation in persuasive writing.

English Language Arts

(Elementary)

Standard 4- Language for Social Interaction

Listening and Speaking

- 1A. Students listen attentively and recognize when it is appropriate for them to speak.
- 1B. Students take turns speaking and respond to others' ideas in conversations on familiar topics.
- 1C. Students recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions, and one-on-one conversations.

Reading and Writing

- 2A. Students exchange friendly notes, cards, and letters with friends, relatives, and pen pals to keep in touch and to commemorate special occasions.
- 2B. Students adjust their vocabulary and style to take into account the nature of the relationship and the knowledge and interests of the person receiving the message.
- 2C. Students read and discuss published letters, diaries, and journals to learn the conventions of social writing.

Math, Science, and Technology

(Elementary)

Standard 1- Analysis, Inquiry and Design

Mathematical Analysis i

1A. Students use special mathematical notation and symbolism to communicate in mathematics and compare and describe quantities, express relationships, and relate mathematics to their immediate environments.

Mathematical Analysis ii

1A. Students use simple logical reasoning to develop conclusions, recognizing that patterns and relationships present in the environment assist them in reaching these conclusions.

Mathematical Analysis iii

1A. Students explore and solve problems generated from school, home, and community situations, using concrete objects or manipulative materials when possible.

Scientific Inquiry i

- 2A. Students ask "why" questions in attempts to seek greater understanding concerning objects and events they have observed and heard about.
- 2B. Students question the explanations they hear from others and read about, seeking clarification and comparing them with their own observations and understandings.
- 2C. Students develop relationships among observations to construct description of objects and events and to form their own tentative explanations of what they have observed.

Scientific Inquiry ii

- 2A. Students develop written plans for exploring phenomena or for evaluating explanations guided by questions or proposed explanations they have helped formulate.
- 2B. Students share their research plans with others and revise them based on their suggestions.
- 2C. Students carry out their plans for exploring phenomena through direct observation and through the use of simple instruments that permit measurements of quantities (e.g., length, mass, volume, temperature, and time).

Math, Science, and Technology

(Elementary)

Standard 1- Analysis, Inquiry and Design -con't

Scientific Inquiry iii

- 2A. Students organize observations and measurements of objects and events through classification and the preparation of simple charts and tables.
- 2B. Students interpret organized observations and measurements, recognizing simple patterns, sequences, and relationships.
- 2C. Students share their findings with others and actively seek their interpretations and ideas.
- 2D. Students adjust their explanations and understandings of objects and events based on their findings and new ideas.

Engineering Design

- 3A. Students engage in the following steps in a design process: describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved.
- 3B. Students engage in the following steps in a design process: investigate prior solutions and ideas from books, magazines, family, friends, neighbors, and community members.
- 3C. Students engage in the following steps in a design process: generate ideas for possible solutions, individually and through group activity; apply age-appropriate mathematics and science skills; evaluate the ideas and determine the best solution; and explain reasons for the choices.
- 3D. Students engage in the following steps in a design process: plan and build, under supervision, a model of the solution using familiar materials, processes, and hand tools.
- 3E. Students engage in the following steps in a design process: discuss how best to test the solution; perform the test under teacher supervision; record and portray results through numerical and graphic means; discuss orally why things worked or didn't work; and summarize results in writing, suggesting ways to make the solution better.

Math, Science, and Technology

(Elementary)

Standard 2 - Information Systems

Information Systems i

- 1A. Students use a variety of equipment and software packages to enter, process and display, and communicate information in the different forms using text, tables, pictures, and sound.
- 1B. Students telecommunicate a message to a distant location with teacher help.
- 1C. Students access needed information from printed media, electronic data bases, and community resources.

Information Systems ii

- 1A. Students describe the uses of information systems in homes, schools, and businesses.
- 1B. Students understand that computers are used to store personal information.
- 1C. Students demonstrate ability to evaluate information.

Information Systems iii

- 1A. Students describe the uses of information systems in homes and schools.
- 1B. Students demonstrate ability to evaluate information critically.

Math, Science, and Technology

(Elementary)

Standard 3 - Mathematics

Mathematical Reasoning

- 1A. Students use models, facts, and relationships to draw conclusions about mathematics and explain their thinking.
- 1B. Students use patterns and relationships to analyze mathematical situations.
- 1C. Students justify their answers and solution processes.
- 1D. Students use logical reasoning to reach simple conclusions.

Number and Numeration

- 2A. Students use whole numbers and fractions to identify locations, quantify group objects, and measure distances.
- 2B. Students use concrete materials to model numbers and number relationships for whole numbers and common fractions, including decimal fractions.
- 2C. Students relate counting to grouping and place-value.
- 2D. Students recognize the order of whole numbers and commonly used fractions and decimals.
- 2E. Students demonstrate the concepts of percent through problems related to actual situations.

Operations

- 3A. Students add, subtract, multiply, and divide whole numbers.
- 3B. Students develop strategies for selecting the appropriate computational and operational method in problem solving situations.
- 3C. Students know single digit addition, subtraction, multiplication, and division facts.
- 3D. Students understand the commutative and associative properties.

Modeling/Multiple Representation

- 4A. Students use concrete materials to model spatial relationships.
- 4B. Students construct tables, charts, and graphs to display and analyze real-world data.
- 4C. Students use multiple representations (simulation's, manipulative materials, pictures, and diagrams) as tools to explain the operation of everyday procedures.
- 4D. Students use variables such as height, weight, temperature and hand size to predict changes over time.
- 4E. Students use physical materials, pictures, and diagrams to explain mathematical ideas and processes and to demonstrate geometric concepts.

Math, Science, and Technology

(Elementary)

Standard 3 - Mathematics - con't

Measurement

- 5A. Students understand that measurements is approximate, never exact.
- 5B. Students select appropriate standard and nonstandard measurement tools in measurement activities.
- 5C. Students understand the attributes of area, length, capacity, weight, volume, time temperature, and angle.
- 5D. Students estimate and find measures such as length, perimeter, area, and volume using both nonstandard and standard units.
- 5E. Students collect and display data.
- 5F. Students use statistical methods such as graphs, tables, and charts to interpret data.

Uncertainty

- 6A. Students make estimates to compare to actual results of both formal and informal, measurement.
- 6B. Students make estimates to compare to actual results of computations.
- 6C. Students recognize situations where only an estimate is required.
- 6D. Students develop a wide variety of estimation skills and strategies.
- 6E. Students determine the reasonableness of results.
- 6F. Students predict experimental probabilities.
- 6G. Students determine probabilities of simple events.
- 6H. Make predictions using unbiased random samples.

Patterns/Functions

- 7A. Students recognize, describe, extend, and create a wide variety of patterns.
- 7B. Students represent and describe mathematical relationships.
- 7C. Students explore and express relationships using variables and open sentences.
- 7D. Students solve for an unknown using manipulative materials and technologies to explore patterns.
- 7E. Students use a variety of manipulative materials and technologies to explore patterns.
- 7F. Students interpret graphs.
- 7G. Students explore and develop relationships among two-and three-dimensional geometric shapes.
- 7H. Students discover patterns in nature, art, music, and literature.

Math, Science, and Technology

(Elementary)

Standard 4 - Science

Physical Setting - Key Idea 1

(Earth/Celestial - Relative Motion and Perspective)

1A. Students describe patterns of daily, monthly, and seasonal changes in their environment.

Physical Setting - Key Idea 2

(Air, water, land - Interactions)

2A. Students describe the relationships among air, water, and land on Earth.

Physical Setting - Key Idea 3

(Matter - Properties)

- 3A. Students observe and describe properties of material using appropriate tools.
- 3B. Students describe chemical and physical changes, including changes in states of matter.

Physical Setting - Key Idea 4

(Energy - Forms)

- 4A. Students describe a variety of forms of energy, (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.
- 4B. Students observe the way of energy can be transformed into another form of energy present in common situations (e.g., mechanical to heat, mechanical to electricity energy, chemical to heat energy.)

Physical Setting - Key Idea 5

(Energy/Matter - Forces)

- 5A. Students describe the effects of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism and mechanical forces.
- 5B. Students describe how forces can operate across distances.

The Living Environment - Key Idea 1

(Living/Non-Living - Characteristics)

- 6A. Students describe the characteristics of and variations between living and nonliving things.
- 6B. Students describe the life processes common to all living things.

The Living Environment - Key Idea 2

(Organisms - Genetic Information)

- 7A. Students recognize the traits of living things are both inherited and acquired or learned.
- 7B. Students recognize that for humans and other living things there is genetic continuity between generations.

Math, Science, and Technology

(Elementary)

Standard 4 - Science -con't

The Living Environment - Key Idea 3

(Organisms - Change over time)

- 8A. Students describe how the structures of plants and animals compliment the environment of the plant or animal.
- 8B. Students observe that differences within a species may individuals an advantage in surviving and reproducing.

The Living Environment - Key Idea 4 (Life Cycles)

- 9A. Students describe the major stages in the life cycles of selected plants and animals.
- 9B. Students describe evidence of growth, repair, and maintenance, such as nails, hair, and bone, and the healing of cuts and bruises.

The Living Environment - Key Idea 5

(Organisms - Dynamic Equilibrium)

- 10A. Students describe basic life functions of common living specimens (guppy, mealworm, gerbil).
- 10B. Students describe some survival behaviors of common living specimens.
- 10C. Students describe the factors that help promote good health and growth in humans.

The Living Environment - Key Idea 6 (Interdependence)

- 11A. Students describe how plants and animals, including humans, depend on each other and the nonliving environment.
- 11B. Students describe the relationship of the sun as an energy source for living and nonliving cycles.

The Living Environment - Key Idea 7 (Human Impact on Environment)

12A. Students identify ways in which humans have changed their environment and the effects of those changes.

Math, Science, and Technology

(Elementary)

Standard 5 - Technology

Engineering Design

- 1A. Students describe objects, imaginary or real, that might be modeled or made differently and suggest ways in which the objects can be changed, fixed, or improved.
- 1B. Students investigate prior solutions and ideas from books, magazines, family, friends, neighbors, and community members.
- 1C. Students generate ideas for possible solutions, individually and through group activity; apply age-appropriate mathematics and science skills; evaluate the ideas and determine the best solution; and explain reasons for the choices.
- 1D. Students plan and build, under supervision, a model of the solution using familiar material, processes, and hand tools.
- 1E. Students discuss how best to test the solution; perform the test under teacher supervision; record and portray results through numerical and graphic means; discuss orally why things worked or didn't work; and summarize results in writing, suggesting ways to make the solution better.

Tools, Resources, and Technological Processes

- 2A. Students explore, use, and process a variety of materials and energy sources to design and construct things.
- 2B. Students understand the importance of safety, cost, ease of use, and availability in selecting tools and resources for a specific purpose.
- 2C. Students develop basic skill in use of hand tools.
- 2D. Students use simply manufacturing processes (e.g., assembly, multiple stages of production, quality control) to produce a product.
- 2E. Students use appropriate graphic and electronic tools and techniques to process information.

Computer Technology

- 3A. Students identify and describe the function of the major components of a computer system.
- 3B. Students use the computer as a tool for generating and drawing ideas.
- 3C. Students control computerized devices and systems through programming.
- 3D. Students model and stimulate the design of a complex environment by giving direct commands.

Technological Systems

- 4A. Students identify familiar examples of technological systems that are used to satisfy human needs and wants, and select them on the basis of safety, cost, and function.
- 4B. Students assemble and operate simple technological systems, including those with interconnecting mechanisms to achieve different kinds of movement.
- 4C. Students understand that larger systems are made up of smaller component subsystems.

Math, Science, and Technology

(Elementary)

Standard 5 - Technology - con't

History and Evolution of Technology

5A. Students identify technological developments that have significantly accelerated human progress.

Impacts of Technology

6A. Students describe how technology can have positive and negative effects on the environment and on the way people live and work.

Management of Technology

- 7A. Students participate in small group projects and in structured group tasks requiring planning, financing, production, quality control, and follow-up.
- 7B. Students speculate and model possible technological solutions that can improve the safety and quality of the school or community environment.

Math, Science, and Technology

(Elementary)

Standard 6 – Interconnectedness: Common Themes

Systems Thinking

- 1A. Students observe and describe the interactions among components of simple systems.
- 1B. Students identify common things that can be considered to be (e.g., a plant population, a subway system, human beings).

Models

- 2A. Students analyze, construct, and operate models in order to discover attributes of the real thing.
- 2B. Students discover that a model of something is different from the real thing but can be used to study the real thing.
- 2C. Students use different types of models, such as graphs, sketches, diagrams, and maps, to represent various aspects of the real world.

Magnitude and Scale

- 3A. Students provide examples of natural and manufactured things that belong to the same category yet have very different sizes, weights, ages, speeds and other measurements.
- 3B. Students identify the biggest and the smallest values as well as the average value of a system when given information about its characteristics and behavior.

Equilibrium and Stability

- 4A. Students cite examples of systems in which some features stay the same while other features change.
- 4B. Students distinguish between reasons for stability-from lack of changes to changes that counterbalance one another to changes within cycles.

Patterns of Change

- 5A. Students use simple instruments to measure such quantities as distance, size, and weight and look for patterns in the data.
- 5B. Students analyze data by making tables and graphs and looking for patterns of change.

Optimization

- 6A. Students determine the criteria and constraints of a simple decision making problem.
- 6B. Students use simple quantitative methods, such as ratios, to compare costs to benefits of a decision problem.

Math, Science, and Technology

(Elementary)

Standard 7 - Interdisciplinary Problem Solving

Connections

- 1A. Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action.
- 1B. Students make informed consumer decisions by applying knowledge about the attributes of particular products and making cost/benefit trade-offs to arrive at an optimal choice.
- 1C. Students design solutions to problems involving a familiar and real context, investigate related science concepts to inform the solution, and use mathematics to model, quantify, measure, and compute.
- 1D. Students observe phenomena and evaluate them scientifically and mathematically by conducting a fair test of the effect of variables and using mathematical knowledge and technological tools to collect, analyze, and present data and conclusions.

Strategies

- 2A. Students work effectively.
- 2B. Students gather and process information.
- 2C. Students generate and analyze ideas.
- 2D. Students observe common themes.
- 2E. Students realize ideas.
- 2F. Students present results.

Social Studies

(Elementary)

Standard 1- History of the United States and New York

History of the United States and New York i

- 1A. Students know the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.
- 1B. Students understand the basic ideals of American democracy as explained in the Declaration of Independence and the Constitution and other important documents.

History of the United States and New York ii

- 1A. Students explain those values, practices, and traditions that unite all Americans.
- 1B. Students gather and organize information about the traditions transmitted by various groups living in their neighborhood and community.
- 1C. Students recognize how traditions and practices were passed from one generation to the next.
- 1D. Students distinguish between near and distant past and interpret simple timelines.

History of the United States and New York iii

- 1A. Students gather and organize information about the important accomplishments of individuals and groups, including Native American Indians, living in their neighborhoods and communities.
- 1B. Students classify information by type of activity: social, political, economic, technological, scientific, cultural, or religious.
- 1C. Students identify individuals who have helped to strengthen democracy in the United States and throughout the world.

History of the United States and New York iv

- 1A. Students consider different interpretations of key events and/or issues in history and understand the differences in these accounts.
- 1B. Students explore different experiences, beliefs, motives, and traditions of people living in their neighborhoods, communities, and State.
- 1C. Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.

Social Studies

(Elementary)

Standard 2- World History

World History i

- 1A. Students read historical narratives, myths, legends, biographies, and autobiographies to learn about how historical figures lived, their motivations, hopes, fears, strengths, and weaknesses.
- 1B. Students explore narrative accounts of important events from world history to learn about different accounts of the past to begin to understand how interpretations and perspectives develop.
- 1C. Students study about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.

World History ii

- 1A. Students distinguish between past, present, and future time periods.
- 1B. Students develop timelines that display important events and eras from world history.
- 1C. Students measure and understand the meaning of calendar time in terms of years, decades, centuries, and millennia, using BC and AD as reference points.
- 1D. Students compare important events and accomplishments from different time periods in world history.

World History iii

- 1A. Students understand the roles and contributions of individuals and groups to social, political, economic, cultural, scientific, technological, and religious practices and activities.
- 1B. Students gather and present information about important development from world history.
- 1C. Students understand how the terms social, political, economic, and cultural can be used to describe human activities or practices.

World History iv

- 1A. Students consider different interpretations of key events and developments in world history and understand the differences in these accounts.
- 1B. Students explore the lifestyles, beliefs, traditions, rules and laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.
- 1C. Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.

Social Studies

(Elementary)

Standard 3- Geography

Geography i

- 1A. Students study about how people live, work, and utilize natural resources.
- 1B. Students draw maps and diagrams that serve as representations of places, physical features, and objects.
- 1C. Students locate places within the local community, State, and nation; locate the Earth's continents in relation to each other and to principal parallels and meridians.
- 1D. Students identify and compare the physical, human, and cultural characteristics of different regions and people.
- 1E. Students investigate how people depend on and modify the physical environment.

Geography ii

- 1A. Students ask geographic questions about where places are located; why they are located where they are; what is important about their location of other people and places.
- 1B. Students gather and organize geographic information from a variety of sources and display in a number of ways.
- 1C. Students analyze geographic information by making relationships, interpreting trends and relationships, and analyzing geographic data.

Social Studies

(Elementary)

Standard 4- Economics

Economics i

- 1A. Students know some ways individuals and groups attempt to satisfy their basic needs and wants by utilizing scarce resources.
- 1B. Students explain how people's wants exceed their limited resources and that this condition defines scarcity.
- 1C. Students know that scarcity requires individuals to make choices and that these choices involve costs.
- 1D. Students study about how the availability and distribution of resources is important to a nation's economic growth.
- 1E. Students understand how societies organize their economies to answer three fundamental economic questions: What goods and services shall be produced and in what quantities? How shall goods and services be produced? For whom shall goods and services be produced?
- 1F. Students investigate how production, distribution, exchange, and consumption of goods and services are economic decisions which all societies and nations must deal.

Economics ii

- 1A. Students locate economic information, using cars catalogues, computer databases, indices, and library guides.
- 1B. Students collect economic information from textbooks, stands references, newspapers, periodicals, and other primary and secondary sources.
- 1C. Students make hypotheses about economic issues and problems, testing, refining, and eliminating hypotheses and developing new ones when necessary.
- 1D. Students present economic information by developing charts, tables, diagrams, and simple graphs.

Social Studies

(Elementary)

Standard 5- Civics, Citizenship, and Government

Civics, Citizenship and Government i

- 1A. Students know the meaning of keys terms and concepts related to government, including democracy, power, citizenship, nation-state, and justice.
- 1B. Students explain the probable consequences of the absence of government rules.
- 1C. Students describe the basic purposes of government and the importance of civic life.
- 1D. Students understand that social and political systems are based upon people's beliefs.
- 1E. Students discuss how and why the world is divided into nations and what kinds of governments other nations have.

Civics, Citizenship and Government ii

- 1A. Students explain how the constitutions of New York State and the United States and the Bill of Rights are the basis for democratic values in the United States.
- 1B. Students understand the basic civil values that are the foundation of American constitutional democracy.
- 1C. Students know what the United States Constitution is and why it is important.
- 1D. Students understand that the United States Constitution and the Constitution of the State of New York are written plans for organizing the functions of government.
- 1E. Students understand the structures of New York State and local governments, including executive, legislative, and judicial branches.
- 1F. Students identify their legislative and executive representatives at local, state, and national governments.

The Arts

(Elementary)

Standard 1- Creating, Performing, and Participating in the Arts

Dance

- 1A. Students identify and demonstrate movement elements and skills (such as bend, twist, slide, skip, and hop).
- 1B. Students demonstrate ways of moving in relation to people, objects and environments in set dance forms.
- 1C. Students create and perform simple dances based on their own movement ideas.

Music

- 2A. Students create short pieces consisting of sounds from a variety of traditional (e.g., tambourine, recorder, piano, voice), electronic (e.g., keyboard), and nontraditional sound sources (e.g., water-filled glasses)
- 2B. Students sing songs and play instruments, maintaining tone quality, pitch, rhythm, tempo, and dynamics; perform the music expressively; and sing or play simple repeated patterns (ostinatos) with familiar songs, rounds, partner songs, and harmonizing parts.
- 2C. Students read simple standard notation in performance, and follow vocal or keyboard scores in listening.
- 2D. Students in performing ensembles read very easy/easy music (New York State School Music Association [NYSSMA] level I-II) and respond appropriately to the gestures of the conductor.
- 2E. Students identify and use, in individual and group experiences, some of the roles, processes, and actions used in performing and composing music of their own and others.

Theatre

- 3A. Students use creative drama to communicate ideas and feelings.
- 3B. Students imitate experiences through pantomime, play making, dramatic play, story dramatization, story telling, and role playing.
- 3C. Students use language, voice, gesture, movement, and observation to express their experiences and communicate ideas and feelings.
- 3D. Students use basic props, simple set pieces and costume pieces to establish place, time, and character for the participants.
- 3E. Students identify and use, in individual and group experiences, some of the roles, processes, and actions used in performing and creating theatre pieces and improvisational drama.

The Arts (Elementary)

Standard 1- Creating, Performing, and Participating in the Arts - con't

- 4A. Students experiment and create art works, in a variety of mediums (drawing, painting, sculpture, ceramics, printmaking, video, and computer graphics), based on a range of individual and collective experiences.
- 4B. Students develop their own ideas and images through the exploration and creation of art works based on themes, symbols, and events.
- 4C. Students understand and use the elements and principles of art (line, color, texture, shape) in order to communicate their ideas.
- 4D. Students reveal through their own art work understanding of how art mediums and techniques influence their creative decisions.
- 4E. Students identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works.

The Arts

(Elementary)

Standard 2- Knowing and Using Arts Materials and Resources

Dance

- 1A. Students demonstrate knowledge of dance resources in video, photography, print and live performance.
- 2A. Students understand the concept of live performance and appropriate conduct.
- 3A. Students demonstrate knowledge of dance-related careers (e.g., dancer, choreographer, composer, lighting designer, historian, teacher).

Music

- 2A. Students use classroom and nontraditional instruments in performing and creating music.
- 2B. Students construct instruments out of material not commonly used for musical instruments.
- 2C. Students use current technology to manipulate sound.
- 2D. Students identify the various settings in which they hear music and the various resources that are used to produce music during a typical week; explain why the particular type of music was used.
- 2E. Students demonstrate appropriate audience behavior, including attentive listening, in a variety of musical settings in and out of school.
- 2F. Students discuss ways that music is used by various members of the community.

Theatre

- 3A. Students visit theaters, theatre-related facilities, and/or touring companies to observe aspects of theatrical production.
- 3B. Students use the library/media center of their school or community to find story dramatization material or other theatre-related materials and to view videotapes of performances.
- 3C. Students attend theatrical performances in their school and demonstrate appropriate audience behavior.
- 3D. Students speak with theatre professionals about how they prepare for and perform their jobs.

- 4A. Students understand the characteristics of various mediums (two-dimensional, three dimensional, electronic images) in order to select those that are appropriate for their purposes and intent.
- 4B. Students develop skills with electronic media as a means of expressing visual ideas.
- 4C. Students know about some cultural institutions (museums and galleries) and community opportunities (art festivals) for looking at original art and talking to visiting artists, to increase their understanding of art.
- 4D. Students give examples of adults who make their livings in the arts professions.

The Arts

(Elementary)

Standard 3- Responding to and Analyzing Works of Art

Dance

- 1A. Students demonstrate knowledge of words and symbols (kinetic, visual, tactile, aural and olfactory) that describe movement.
- 1B. Students express to others their understanding of specific dance performances, using appropriate language to describe what they have seen and heard.

Music

- 2A. Students, through listening, identify the strengths and weaknesses of specific musical works and performances, including their own and others.
- 2B. Students describe the music in terms related to basic elements such as melody, rhythm, harmony, dynamics, timbre, form, style, etc.
- 2C. Students discuss the basic means by which the voice and instruments can alter pitch, loudness, duration, and timbre.
- 2D. Students describe the music's context in terms related to its social and psychological functions and settings (e.g., roles of participants, effects of music, uses of music with other events or objects, etc.)
- 2E. Students describe their understandings of particular pieces of music and how they relate to their surroundings.

Theatre

- 3A. Students discuss their understanding, interpretation, and evaluation of a theatrical performance, using basic theatre terminology.
- 3B. Students identify the use of other art forms in theatre productions.
- 3C. Students explain the relationship of theatre to film and video.

- 4A. Students explain their reflections about the meanings, purposes, and sources of works of art; describe their responses to the works and the reasons for those responses.
- 4B. Students explain the visual and other sensory qualities (surfaces, colors, textures, shape, sizes, volumes) found in a wide variety of art works.
- 4C. Students explain the themes that are found in works of visual art and how the art works are related to other forms of art (dance, music, theatre, etc.)
- 4D. Students explain how ideas, themes, or concepts in the visual arts are expressed in other disciplines (e.g., mathematics, science, literature, social studies, etc.)

The Arts

(Elementary)

Standard 4- Understanding the Cultural Dimensions and Contributions of the Arts

Dance

- 1A. Students identify basic dance movements that are typical of the major world cultures.
- 1B. Students explain the settings and circumstances in which dance is found in their lives and those of others, both past and present.

Music

- 2A. Students identify when listening, and perform from memory, a basic repertoire of folk songs/dances and composed songs from the basic cultures that represent the peoples of the world.
- 2B. Students identify the titles and composers of well-known examples of classical concert music and blues/jazz selections.
- 2C. Students identify the primary cultural, geographical and historical settings for the music they listen to and perform.

Theatre

- 3A. Students dramatize stories and folk tales from various cultures.
- 3B. Students engage in drama/theatre activities including music, dance, and games which reflect other cultures and ethnic groups.
- 3C. Students discuss how classroom theatre activities relate to their lives.

- 4A. Students look at and discuss a variety of art works and artifacts from world cultures to discover some important ideas, issues, and events of those cultures.
- 4B. Students look at a variety of art works and artifacts from diverse cultures of the United States and identify some distinguishing characteristics.
- 4C. Students create art works that show the influence of a particular culture.

Languages Other Than English

(Checkpoint A)

Standard 1- Communication Skills

Modern Languages i

- 1A. Students can comprehend language consisting of simple vocabulary and structures in face-to-face conversation with peers and familiar adults.
- 1B. Students comprehend the main idea of more extended conversations with some unfamiliar vocabulary and structures as well as cognates of English words.
- 1C. Students call upon repetition, rephrasing, and nonverbal cues to derive or convey meaning from a language other than English.
- 1D. Students use appropriate strategies to initiate and engage in simple conversations with more fluent or native speakers of the same age group, familiar adults, and providers of common public services.

Modern Languages ii

- 1A. Students can understand the main idea and some details of simple informative materials written for native speakers.
- 1B. Students compose short, informal notes and messages to exchange information with members of the target culture.

Latin i

- 2A. Students can read and understand simple connected materials written in Latin.
- 2B. Students write simple responses to oral, visual, or written stimuli.
- 2C. Students demonstrate an awareness of the vocabulary, grammar, derivation, and word structure of English.

Latin ii

2A. Students can recognize and comprehend simple spoken Latin statements and questions based on classroom situations.

American Sign Language

- 3A. Students can use receptive skills to comprehend simple statements and questions in standard dialect.
- 3B. Students can express basic needs and compose statements, questions and short messages to signers of the same age group and to familiar adults.
- 3C. Students can initiate and engage in simple face-to-face conversations.

Languages Other Than English

(Checkpoint A)

Standard 1- Communication Skills - con't

Native American Languages i

- 4A. Students can comprehend simple statements and questions in the context of the classroom and the main ideas of more extended messages and conversations.
- 4B. Students can initiate and respond to simple face-to-face conversations.

Native American Languages ii

- 4A. Students can comprehend the main ideas of materials containing simple structure and syntax.
- 4B. Students can compose short messages on familiar topics or to express basic personal needs.

Languages Other Than English

(Checkpoint A)

Standard 2- Cultural Understanding

Modern Languages

1A. Students can use some key cultural traits of the societies in which the target language is spoken.

Latin

- 2A. Students can demonstrate knowledge of some aspects of Greco-Roman culture and selected facts of daily life, myths, history, and architecture.
- 2B. Students can recognize manifestations of antiquity in the modern world.
- 2C. Students can read selections of culturally authentic passages, some of which are based directly on Latin authors, and point out significant cultural aspects.
- 2D. Students can describe the mythological origins of modern symbols such as Apollo space craft.

American Sign Language

- 3A. Students can use key cultural traits that exist in settings where American Sign Language is used.
- 3B. Students can become aware of cultural patterns, learned through the use of American Sign Language, that characterize the Deaf culture.

Native American Languages

- 4A. Students can demonstrate an awareness of Native culture.
- 4B. Students recognize the names of cultural items and their uses.
- 4C. Students recognize the names of cultural items and their uses.4D. Students understand the history and cultural symbols of the people.
- 4E. Students demonstrate knowledge about the clan system.

Health, Physical Education, Family and Consumer Sciences

(Elementary)

Standard 1- Personal Health and Fitness

Health Education

- 1A. Students know how basic body systems work and interrelate in normal patterns of growth and development.
- 1B. Students possess basic knowledge and skills which support positive health choices and behaviors.
- 1C. Students understand how behaviors such as food selection, exercise, and rest affect growth and development.
- 1D. Students recognize influences which affect health choices and behaviors.
- 1E. Students know about some diseases and disorders and how they are prevented and treated.
- 1F. Students practice and support others in making healthy choices.

Physical Education

- 2A. Students participate in physical activities (games, sports, exercises) that provide conditioning for each fitness area.
- 2B. Students develop physical fitness skills through regular practices, effort, and perseverance.
- Students demonstrate mastery of fundamental motor, non-locomotor, and manipulative skills, and understand fundamental principles of movement.
- 2D. Students understand the effects of activity on the body, the risks associated with inactivity, and the basic components of health-related fitness (cardiovascular, muscle strength, muscle endurance, flexibility, and body composition.
- 2E. Students demonstrate and assess their fitness by performing exercises or activities related to each health-related fitness component, and establish personal goals to improve their fitness.
- 2F. Students understand the relationship between physical activity and individual well being.

Family and Consumer Sciences

- 3A. Students understand the importance of nutritious food and how it contributes to good health, make simple nutritious food choices, and assist with basic food preparation.
- 3B. Students use simple household tools safely to perform a variety of everyday tasks.
- 3C. Students recognize how a family contributes to personal health.

Health, Physical Education, Family and Consumer Sciences

(Elementary)

Standard 2- A Safe and Healthy Environment

Health Education

- 1A. Students understand basic safety rules.
- 1B. Students recognize potentially dangerous situations and know how to avoid or reduce their risk.
- 1C. Students know some personal and social skills which contribute to individual safety.
- 1D. Students recognize characteristics of the environment that contribute to health.

Physical Education

- 2A. Students contribute to a safe and healthy environment by observing safe conditions for games, recreation, and outdoor activities.
- 2B. Students come to know and practice appropriate participant and spectator behaviors to produce a safe and positive environment.
- 2C. Students work constructively with others to accomplish a variety of goals and tasks.
- 2D. Students know how injuries from physical activity can be prevented or treated.
- 2E. Students demonstrate care, consideration, and respect of self and others during physical activity.

Family and Consumer Sciences

- 3A. Students understand some basic requirements of nurturing people of various ages, and demonstrate appropriate ways to interact with them.
- 3B. Students know some conditions necessary for a safe and healthy home and school environment and recognize the various ways individuals contribute to that environment.

Health, Physical Education, Family and Consumer Sciences

(Elementary)

Standard 3- Resource Management

Health Education

- 1A. Students identify characteristics of valid health information and health-promoting products and services and know where to locate them.
- 1B. Students understand how culture contributes to individual family and community beliefs and practices affecting health.
- 1C. Students know how to access help when illness, injury, or emergency situations occur.
- 1D. Students recognize how the media influences health choices.

Physical Education

- 2A. Students know that resources available at home and in the community offer opportunities to participate in and enjoy a variety of physical activities in their leisure time.
- 2B. Students become discriminating consumers of fitness information, health-related fitness activities in their communities, and fitness and sports equipment.
- 2C. Students demonstrate the ability to apply the decision making process to physical activity.

Family and Consumer Sciences

- 3A. Students understand the kinds of resources available in their community and make informed decisions related to their own use.
- 3B. Students understand how people acquire, use, and protect money and recognize some factors that influence spending.
- 3C. Students know the different jobs in their communities and the contributions made by individuals performing those jobs.

Career Development and Occupational Studies (Elementary)

Standard 1- Career Development

No Component Available

- 1A. Students will begin a career plan that would assist in the transition from school to eventual entry into a career option.
- 1B. Students demonstrate an awareness of their interests, aptitudes, and abilities
- 1C. Students know the value of work to the individual and society in general.
- 1D. Students describe the changing nature of the workplace brought about by global competition and technology.
- 1E. Students explore their preferences for working with people, information, and/or things.
- 1F. Students demonstrate understanding of the relationship of decision making to the attainment of future goals.
- 1G. Students describe the changing roles of men and women at home and in the workplace.

Career Development and Occupational Studies (Elementary)

Standard 2- Integrated Learning

No Component Available

- 1A. Students identify academic knowledge and skills that are required in specific occupations.
- 1B. Students demonstrate the difference between the knowledge of a skill and the ability to use the skill.
- 1C. Students solve problems that call for applying academic knowledge and skills.

Career Development and Occupational Studies (Elementary)

Standard 3- Universal Foundation Skills

No Component Available

1A. Students listen to and read the ideas of others and express themselves both orally and in writing; they use basic mathematical concepts and computation to solve problems.

English Language Arts

(Intermediate)

Standard 1- Language for Information and Understanding

Listening and Reading

- 1A. Students interpret and analyze information from textbooks and nonfiction books for young adults, as well as reference materials, audio and media presentations, oral interviews, graphs, charts, diagrams, and electronic data bases intended for a general audience.
- 1B. Students compare and synthesize information from different sources.
- 1C. Students use a wide variety of strategies for selecting, organizing, and categorizing information.
- 1D. Students distinguish between relevant and irrelevant information and between fact and opinion.
- 1E. Students relate new information to prior knowledge and experience.
- 1F. Students understand and use the text features that make information accessible and usable, such as format, sequence, level of diction, and relevance of details.

- 2A. Students produce oral and written reports on topics related to all school subjects.
- 2B. Students establish an authoritative stance on the subject and provide references to establish the validity and verifiability of the information presented.
- 2C. Students organize information according to an identifiable structure, such as compare/contrast or general to specific.
- 2D. Students develop information with appropriate supporting material, such as facts, details, illustrative examples or anecdotes, and exclude extraneous material.
- 2E. Students use the process of pre-writing, drafting, revising, and proofreading (the "writing process") to produce well-constructed informational texts.
- 2F. Students use Standard English for formal presentation of information, selecting appropriate grammatical constructions and vocabulary, using a variety of sentence structures, and observing the rules of punctuation, capitalization, and spelling.

English Language Arts

(Intermediate)

Standard 2- Language for Literary Response and Expression

Listening and Reading

- 1A. Students read and view texts and performances from a wide range of authors, subjects and genres.
- 1B. Students understand and identify the distinguishing features of the major genres and use them to aid their interpretation and discussion of literature.
- 1C. Students identify significant literary elements (including metaphor, symbolism, foreshadowing, dialect, rhyme, meter, irony, climax) and use those elements to interpret the work.
- 1D. Students recognize different levels of meaning.
- 1E. Students read aloud with expression, conveying the meaning and mood of a work.
- 1F. Students evaluate literary merit based on an understanding of the genre and the literary elements.

Speaking and Writing

- 2A. Students present responses to and interpretations of literature, making reference to the literary elements found in the text and connections with their personal knowledge and experience.
- 2B. Students produce interpretations of literary works that identify different levels of meaning and comment on their significance and effect.
- 2C. Students write stories, poems, literary essays, and plays that observe the conventions of the genre and contain interesting and effective language and voice.
- 2D. Students use Standard English effectively.

English Language Arts

(Intermediate)

Standard 3- Language for Critical Analysis and Evaluation

Listening and Reading

- 1A. Students analyze, interpret, and evaluate information, ideas, organization, and language from academic and nonacademic texts, such as textbooks, public documents, book and movie reviews and editorials.
- 1B. Students assess the quality of texts and presentations, using criteria related to the genre, the subject area, and purpose (e.g., using the criteria of accuracy, objectivity, comprehensiveness, and understanding of the game to evaluate a sports editorial).
- 1C. Students understand that within any group there are many different points of view depending on the particular interests and values of the individual and recognize those differences in perspective in texts and presentations (e.g., in considering whether to let a new industry comes into a community, some community members might be enthusiastic about the additional jobs that will be created while others are concerned about the air and noise pollution that could result.)
- 1D. Students evaluate their own and others' work based on a variety of criteria (e.g. logic, clarity, comprehensiveness, conciseness, originality, conventionality) and recognize the varying effectiveness of different approaches.

Speaking and Writing

- 2A. Students present (in essays, position papers, speeches, and debates) clear analyses of issues, ideas, texts, and experiences, supporting their positions with well-developed arguments.
- 2B. Students develop arguments with effective use of details and evidence that reflect a coherent set of criteria (e.g., reporting results of lab experiments to support a hypothesis).
- 2C. Students monitor and adjust their own oral and written presentations according to the standards for a particular genre (e.g., defining key terms used in a formal debate).
- 2D. Students use Standard English, precise vocabulary and presentational strategies effectively to influence an audience.

English Language Arts

(Intermediate)

Standard 4- Language for Social Interaction

Listening and Reading

- 1A. Students listen attentively to others and build on others' ideas in conversations with peers and adults.
- 1B. Students express ideas and concerns clearly and respectfully in conversations and group discussions.
- 1C. Students learn some words and expressions in another language to communicate with a peer or adult who speaks that language.
- 1D. Students use verbal and nonverbal skills to improve communication with others.

Reading and Writing

- 2A. Students write social letters, cards, and electronic messages to friends, relatives, community acquaintances, and other electronic network users.
- 2B. Students use appropriate language and style for the situation and the audience and take into account the ideas and interests expressed by the person receiving the message.
- 2C. Students read and discuss social communications and electronic communications of other writers and use some of the techniques of those writers in their own writing.

Math, Science, and Technology

(Intermediate)

Standard 1- Analysis, Inquiry and Design

Mathematical Analysis i

1A. Students extend mathematical notation and symbolism to include variables and algebraic expressions in order to describe and compare quantities and express mathematical relationships.

Mathematical Analysis ii

1A. Students use inductive reasoning to construct, evaluate, and validate conjectures and arguments, recognizing that patterns and relationships can assist in explaining and extending mathematical phenomena.

Mathematical Analysis iii

1A. Students apply mathematical knowledge to solve real-world problems that arise from the investigation of the mathematical ideas, using representations such as pictures, charts, and tables.

Scientific Inquiry i

- 2A. Students formulate questions independently with the aid of references appropriate for guiding the search for explanations of everyday observations.
- 2B. Students construct explanations independently for natural phenomena, especially by proposing preliminary visual models of phenomena.
- Students represent, present, and defend their proposed explanations of everyday observations so that they can be understood and assessed by others.
- 2D. Students seek to clarify, to assess critically, and to reconcile with their own thinking the ideas presented by others, including peers, teachers, authors, and scientists.

Scientific Inquiry ii

- 2A. Students use conventional techniques and those of their own design to make further observations and refine their explanations, guided by a need for more information.
- 2B. Students develop, present, and defend formal research proposals for testing their own explanations of common phenomena, including ways of obtaining needed observations and ways of conducting simple controlled experiments.
- 2C. Students carry out their research proposals, recording observations and measurements (e.g., lab notes, audio tape, computer disk, video tape) to help assess the explanation.

Math, Science, and Technology

(Intermediate)

Standard 1- Analysis, Inquiry and Design – con't

Scientific Inquiry iii

- 2A. Students design charts, tables, graphs and other representations of observations in conventional and creative ways to help them address their research question or hypothesis.
- 2B. Students interpret organized data to answer the research question or hypothesis and to gain insight into the problem.
- 2C. Students modify their personal understanding of phenomena based on evaluation of their hypothesis.

Engineering Design

- 3A. Students engage in the following steps in a design process: identify needs and opportunities for technical solutions from an investigation of situations of general or social interest.
- 3B. Students engage in the following steps in a design process: locate and utilize a range of printed, electronic, and human information resources to obtain ideas.
- 3C. Students engage in the following steps in a design process: consider constraints and generate several ideas for alternative solutions, using group and individual ideation techniques (group discussion, brainstorming, forced connections, role play); defer judgment until a number of ideas have been generated; evaluate (critique) ideas; and explain why the chosen solution is optimal.
- 3D. Students engage in the following steps in a design process: develop plans, including drawings with measurements and details of construction, and construct a model of the solution, exhibiting a degree of craftsmanship.
- 3E. Students engage in the following steps in a design process: in a group setting, test their solution against design specifications, present and evaluate results, describe how the solution might have been modified for different or better results, and discuss tradeoffs that might have to be made.

Math, Science, and Technology

(Intermediate)

Standard 2 - Information Systems

Information Systems *i*

- 1A. Students use a range of equipment and software to integrate several forms of information in order to create good quality audio, video, graphic, and text-based presentations.
- 1B. Students use spreadsheets and data-base software to collect, process, display, and analyze information. Students access needed information from electronic data bases and on-line telecommunication services.
- 1C. Students systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources, including local and national media, libraries, museums, governmental agencies, industries, and individuals.
- 1D. Students collect data from probes to measure events and phenomena.
- 1E. Students use simple modeling programs to make predictions.

Information Systems ii

- 1A. Students understand the need to question the accuracy of the information displayed on a computer because the results produced by a computer may be affected be incorrect data entry.
- 1B. Students identify advantages and limitations of data-handling programs and graphic programs.
- 1C. Students understand why electronically stored personal information has a greater potential for misuse than records kept in conventional form.

Information Systems iii

- 1A. Students use graphical, statistical, and presentation software to presents project to fellow classmates.
- 1B. Students describe applications of information technology in mathematics, science, and other technologies that address needs and solve problems in the community.
- 1C. Students explain the impact of the use and abuse of electronically generated information on individuals and families.

Math, Science, and Technology

(Intermediate)

Standard 3 - Mathematics

Mathematical Reasoning

- 1A. Students apply a variety of reasoning strategies.
- 1B. Students make and evaluate conjectures and arguments using appropriate language.
- 1C. Students make conclusions based on inductive reasoning.
- 1D. Students justify conclusions involving simple and compound (I.e., and /or) statements.

Number and Numeration

- 2A. Students understand, represent, and use numbers in a variety of equivalent forms (integer, fraction, decimal, percent, exponential, expanded, and scientific notation).
- 2B. Students understand and apply ratios, proportions, and percents through a variety of hands-on exploration.
- 2C. Students develop an understanding of number theory (primes, factors, and multiples).
- 2D. Students recognize order relations for decimals, integers, and rational numbers.

Operations

- 3A. Students add, subtract, multiply, and divide fractions, decimals, and integers.
- 3B. Students explore and use the operations dealing with roots and powers.
- 3C. Students use grouping symbols (parentheses) to clarify the intended order of operations.
- 3D. Students apply the associative, commutative, distributive properties, and inverse and identity elements.
- 3E. Students demonstrate an understanding of operational algorithms (procedures for adding, subtracting, etc.).
- 3F. Students develop appropriate proficiency with facts and algorithms.
- 3G. Students apply concepts of ratio and proportion to solve problems.

Modeling/Multiple Representation

- 4A. Students visualize, represent, and transform and transform two- and three-dimensional shapes.
- 4B. Students use maps and scale drawings to represent real objects or places.
- 4C. Students use the coordinate plane to explore geometric ideas.
- 4D. Students represent numerical relationships in one- and two-dimensional graphs.
- 4E. Students use variables to represent relationships.
- 4F. Students use concrete materials and diagrams to describe the operation of real world processes and systems.

Math, Science, and Technology

(Intermediate)

Standard 3 - Mathematics - con't

Modeling/Multiple Representation

- 4G. Students develop and explore models that do and do not rely on chance.
- 4H. Students investigate both two- and three-dimensional transformations.
- 4I. Students use appropriate tools to construct and verify geometric relationships.
- 4J. Students develop procedures for basic geometric constructions.

Measurement

- 5A. Students estimate, make, and use measurements in real-world situations.
- 5B. Students select appropriate standard and nonstandard measurement units and tools to measure to a desired degree of accuracy.
- 5C. Students develop measurement skills and informally derive and apply formulas in direct measurement activities.
- 5D. Students use statistical methods and measures of central tendencies to display, describe, and compare data.
- 5E. Students explore and produce graphic representations of data using calculators/computers.
- 5F. Students develop critical judgment for the reasonableness of measurement.

Uncertainty

- 6A. Students use estimation to check the reasonableness of results obtained by computation, algorithms, or the use of technology.
- 6B. Students use estimation to solve problems for which exact answers are inappropriate.
- 6C. Students estimate the probability of events.
- 6D. Students use simulation techniques to estimate probabilities.
- 6E. Students determine probabilities of independent and mutually exclusive events.

Patterns/Functions

- 7A. Students recognize, describe, and generalize a wide variety of patterns and functions.
- 7B. Students describe and represent patterns and functional relationships using tables, charts, and graphs, algebraic expressions, rules, and verbal descriptions.
- 7C. Students develop methods to solve basic linear and quadratic equations.
- 7D. Students develop an understanding of functions and functional relationships: that a change in one quantity (variable) results in change in another.

Math, Science, and Technology

(Intermediate)

Standard 3 - Mathematics - con't

Patterns/Functions

- 7E. Students verify results of substituting variables.
- 7F. Students apply the concept of similarity in relevant situations.
- 7G. Students use properties of polygons to classify them.
- 7H. Students explore relationships involving points, lines, angles, and planes.
- 7I. Students develop and apply the Pythagorean principle in the solution of problems.
- 7J. Students develop readiness for basic concepts of right triangle trigonometry.
- 7K. Students use patterns and functions to represent and solve problems.

Math, Science, and Technology

(Intermediate)

Standard 4 - Science

Physical Setting - Key Idea 1

(Earth/Celestial - Relative Motion and Perspective)

1A. Students describe daily, monthly, and seasonal changes on Earth.

Physical Setting - Key Idea 2

(Air, Water, Land - Interactions)

- 2A. Students explain how the atmosphere (air), hydrosphere (water), and lithosphere (land) interact, evolve, and change.
- 2B. Students describe volcano and earthquake patterns, the rock cycle, and weather and climate changes.

Physical Setting - Key Idea 3

(Matter - Properties)

- 3A. Students observe and describe properties of materials, such as density, conductivity, and solubility.
- 3B. Students distinguish between chemical and physical changes.
- 3C. Students develop their own metal models to explain common chemical reactions and changes in states of matter.

Physical Setting - Key Idea 4

(Energy - Forms)

- 4A. Students describe the sources and identify the transformations of energy observed in everyday life.
- 4B. Students observe and describe heating and cooling events.
- 4C. Students observe and describe energy changes as related to chemical reactions.
- 4D. Students observe and describe the properties of sound, light, magnetism, and electricity.
- 4E. Students describe situations that support the principle of conservation of energy.

Physical Setting - Key Idea 5

(Energy/Matter - Forces)

- 5A. Students describe different patterns of motion of objects.
- 5B. Students observe, describe, and compare effects of forces (gravity, electric current, and magnetism) on the motion of objects.

The Living Environment - Key Idea 1

(Living/Non-Living - Characteristics)

- 6A. Students compare and contrast the parts of plants, animals, and one-celled organisms.
- 6B. Students explain the functioning of the major human organ system and their interactions.

Math, Science, and Technology

(Intermediate)

Standard 4 - Science - con't

The Living Environment - Key Idea 2 (Organisms - Genetic Information)

- 7A. Students describe sexual and asexual mechanisms for passing genetic materials from generation to generation.
- 7B. Students describe simple mechanisms related to the inheritance of some physical traits in offspring.

The Living Environment - Key Idea 3

(Organisms - Change over time)

- 8A. Students describe sources of variation in organisms and their structures and relate the variations to survival.
- 8B. Students describe factors responsible for competition within species and the significance of that competition.

The Living Environment - Key Idea 4 (Life Cycles)

- 9A. Students observe and describe the variations in reproductive patterns of organisms, including asexual and sexual reproduction.
- 9B. Students explain the role of sperm and egg cells in sexual reproduction.
- 9C. Students observe and describe developmental patterns in selected plants and animals (e.g., insects, frogs, humans, seed-bearing plants).
- 9D. Students observe and describe cell division at the microscopic level and its macroscopic effects.

The Living Environment - Key Idea 5

(Organisms - Dynamic Equilibrium)

- 10A. Students compare the way a variety of living specimens carry out basic life functions and maintain dynamic equilibrium.
- 10B. Students describe the importance of major nutrients, vitamins, and mineral in maintaining health and promoting growth and explain the need for a constant input of energy for living organisms.

The Living Environment - Key Idea 6 (Interdependence)

- 11A. Students describe the flow of energy and matter through food chains and food webs.
- 11B. Students provide that green plants make food and explain the significance of this process to other organisms.

Math, Science, and Technology

(Intermediate)

Standard 4 - Science - con't

The Living Environment - Key Idea 7 (Human Impact on Environment)

- 12A. Students describe how living things, including humans, depend upon the living and nonliving environment for their survival.
- 12B. Students describe the effects of environmental changes on humans and other populations.

Math, Science, and Technology

(Intermediate)

Standard 5 - Technology

Engineering Design

- 1A. Students identify needs and opportunities for technical solutions from an investigation of situations of general or social interest.
- 1B. Students locate and utilize a range of printed, electronic, and human information resources to obtain ideas.
- 1C. Students consider constraints and generate several ideas for alternative solutions, using group and individual ideation techniques (group discussion, brainstorming, forced connections, role play); defer judgment until a number of ideas have been generated; evaluate (critique) ideas; and explain why the chosen solution is optimal.
- 1D. Students develop plans, including drawings with measurements and details of construction, and construct a model of the solution, exhibiting a degree of craftsmanship.
- 1E. In a group setting, students test their solution against design specifications, present and evaluate results, describe how the solution might have been modified for different or better results, and discuss tradeoffs that might have to be made.

Tools, Resources, and Technological Processes

- 2A. Students choose and use resources for a particular purpose based upon analysis and understanding of their properties, costs, availability, and environmental impact.
- 2B. Students use a variety of hand tools and machines to change materials into new forms through forming, separating, and combining processes, and processes which cause internal change to occur.
- 2C. Students combine manufacturing processes with other technological processes to produce, market, and distribute a product.
- 2D. Students process energy into other forms and information into more meaningful information.

Computer Technology

- 3A. Students assemble a computer system including keyboard, central processing unit and disc drives, mouse, modem, printer, and monitor.
- 3B. Students use a computer system to connect and access needed information from various Internet sites.
- 3C. Students use computer hardware and software to draw and dimension prototypical designs.
- 3D. Students use a computer as a modeling tool.
- 3E. Students use a computer system to monitor and control external events and/or systems.

NYS Learning Standards Elba Central School Math, Science, and Technology

(Intermediate)

Standard 5 - Technology-con't

Technological Systems

- 4A. Students select appropriate technological systems on the basis of safety, function, cost, ease of operation, and quality of post-purchase support.
- 4B. Students assemble, operate, and explain the operation of simple openand closed-loop electrical, electronic, mechanical, and pneumatic systems.
- 4C. Students describe how subsystems and system elements (inputs, processes, outputs) interact with the systems.
- 4D. Students describe how system control requires sensing information, processing it, and making changes.

History and Evolution of Technology

- 5A. Students describe how the evolution of technology led to the shift in society from an agricultural base to an industrial base to an information base.
- 5B. Students understand the contributions of people of different genders, races, and ethnic groups to technological development.
- 5C. Students describe how new technologies have evolved as a result of combining existing technologies (e.g., photography combined optics and chemistry; the airplane combined kite and glider technology with a lightweight gasoline engine).

Impacts of Technology

- 6A. Students describe how outputs of a technological system can be desired, undersigned, expected, or unexpected.
- 6B. Students describe through examples how modern technology reduces manufacturing and construction costs and produces more uniform products.

Management of Technology

- 7A. Students manage time and financial resources in a technological project.
- 7B. Students provide examples of products that are well (and poorly) designed and made, describe their positive and negative attributes, and suggest measures that can be implemented to monitor quality during production.
- 7C. Students assume leadership responsibilities within a structured group activity.

Math, Science, and Technology

(Intermediate)

Standard 6 -Interconnectedness: Common Themes

Systems Thinking

- 1A. Students describe the differences between dynamic systems and organizational systems.
- 1B. Students describe the differences and similarities between engineering systems, natural systems, and social systems.
- 1C. Students describe the differences between open-and closed-loop systems.
- 1D. Students describe how the output from one part of a system (which can include material, energy, or information) can become the input to other parts.

Models

- 2A. Students select an appropriate model to begin the search for answers or solutions to a question or problem.
- 2B. Students use models to study processes that cannot be studied directly (e.g., when the real process is too slow, too fast, or too dangerous for direct observation).
- 2C. Students demonstrate the effectiveness of different models to represent different things.

Magnitude and Scale

- 3A. Students cite examples of how different aspects of natural and designed systems change at different rates with changes in scale.
- 3B. Students use powers of ten notation to represent very small and very large numbers.

Equilibrium and Stability

- 4A. Students describe how feedback mechanisms are used in both designed and natural systems to keep changes within described limits.
- 4B. Students describe changes within equilibrium cycles in terms of frequency or cycle length and determine the highest and lowest values and when they occur.

Patterns of Change

- 5A. Students use simple linear equations to represent how a parameter changes with time.
- 5B. Students observe patterns of change in trends or cycles and make predictions on what might happen in the future.

Optimization

- 6A. Students determine the criteria and constraints and make tradeoff to determine the best decision.
- 6B. Students use graphs of information for a decision making problem to determine the optimum solution.

Math, Science, and Technology

(Intermediate)

Standard 7 - Interdisciplinary Problem Solving

Connections

- 1A. Students analyze science/technology/society problems and issues that affect their home, school, or community, and carry out a remedial course of action.
- 1B. Students make informed consumer decisions by seeking answers to appropriate questions about products, services, and systems; determine the cost/benefit and risk/benefit tradeoffs; and applying this knowledge to a potential purchase.
- 1C. Students design solutions to real-world problems of general social interest related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in developing a solution.
- 1D. Students describe and explain phenomena by designing and conducting investigations involving systematic observations, accurate measurements, and the identification and control of variables; by inquiring into relevant mathematical ideas; and by using mathematical and technological tools and procedures to assist in the investigation.

Strategies

- 2A. Students work effectively.
- 2B. Students generate and analyze ideas.
- 2C. Students observe common themes.
- 2D. Students realize ideas.
- 2E. Students present results.

Social Studies

(Intermediate)

Standard 1 – History of the United States and New York

History of the United States and New York i

- 1A. Students explore the meaning of American culture by identifying the key ideas, beliefs, and patterns of behavior, and traditions that help define it and unite all Americans.
- 1B. Students interpret the ideas, values, and beliefs contained in the Declaration of Independence and the New York State Constitution and United States Constitutions, Bill of Rights, and other important historical documents.

History of the United States and New York ii

- 1A. Students describe the reasons for periodizing history in different ways.
- 1B. Students investigate key turning points in New York State and United States history and explain why these events or developments are significant.
- 1C. Students understand the relationship between the relative importance of United States domestic and foreign policies over time.
- 1D. Students analyze the role played by the United States in international politics, past and present.

History of the United States and New York iii

- 1A. Students complete well-documented and historically accurate case studies about individuals and groups who represent different ethnic, national, and religious groups, including Native American Indians, in New York State and the United States at different times and in different locations.
- 1B. Students gather and organize information about the important achievements and contributions of individuals and groups living in New York State and the United States.
- 1C. Students describe how ordinary people and famous historic figures in the local community, State and the United States have advanced the fundamental democratic values, beliefs, and traditions expressed in the Declaration of Independence, the New York State and United States Constitutions, the Bill of Rights, and other important historic documents.
- 1D. Students classify major developments into categories such as social, political, economic, geographic, technological, scientific, cultural or religious.

Social Studies

(Intermediate)

Standard 1 – History of the United States and New York-con't

History of the United States and New York iv

- 1A. Students consider the sources of historic documents, narratives, or artifacts and evaluate their reliability.
- 1B. Students understand how different experiences, beliefs, values, traditions, and motives cause individuals and groups to interpret historic events and issues from different perspectives.
- 1C. Students compare and contrast different interpretations of key events and issues in New York State and United States history and explain reasons for these different accounts.
- 1D. Students describe historic events through the eyes and experiences of those who were there.

Social Studies

(Intermediate)

Standard 2 – World History

World History i

- 1A. Students know the social and economic characteristics, such as customs, traditions, child-bearing practices, ways of making a living, education, socialization practices, gender roles, foods and religious and spiritual beliefs that distinguish different cultures and civilizations.
- 1B. Students know some important historic events and developments of past civilizations.
- 1C. Students interpret and analyze documents and artifacts related to significant developments and events in world history.

World History ii

- 1A. Students develop timelines by placing important events and developments in world history in their correct chronological order.
- 1B. Students measure time periods by years, decades, centuries, and millennia.
- 1C. Students study about major turning points in world history by investigating the causes and other factors that brought about change and the results of these changes.

World History iii

- 1A. Students investigate the roles and contributions of individuals and groups in relation to key social, political, cultural, and religious practices throughout world history.
- 1B. Students interpret and analyze documents and artifacts related to significant developments and events in world history.
- 1C. Students classify historic information according to the type of activity or practice: social/cultural, political, economic, geographic, scientific, technological, and historic.

World History iv

- 1A. Students explain the literal meaning of a historical passage or primary source document, identifying who was involved, what happened, where it happened, what events led up to these developments, and what consequences or outcomes followed.
- 1B. Students analyze different interpretations of important events and themes in world history and explain the various frames of reference expressed by different historians.
- 1C. Students view history through the eyes of those who witnessed key events and developments in world history by analyzing their literature, diary accounts, letters, artifacts, art, music, architectural drawings, and other documents.
- 1D. Students investigate important events and developments in world history by posing analytical questions, selecting relevant data, distinguishing fact from opinion, hypothesizing cause-and-effect relationships, testing these hypotheses, and forming conclusions.

Social Studies

(Intermediate)

Standard 3 - Geography

Geography i

- 1A. Students map information about people, places, and environments.
- 1B. Students understand the characteristics, functions and applications of maps, globes, aerial and other photographs, satellite-produced images, and models.
- 1C. Students investigate why people and places are located where they are located and what patterns can be perceived in these places.
- 1D. Students describe the relationships between people and environments and the connections between people and places.

Geography ii

- 1A. Students formulate geographic questions and define geographic issues and problems.
- 1B. Students use a number of research skills; (e.g., computer databases, periodicals, census reports, maps, standard reference works, interviews, surveys) to locate and gather geographical information about issues and problems.
- 1C. Students present geographic information in a variety of formats, including maps, tables, graphs, charts, diagrams, and computer-generated models.
- 1D. Students interpret geographic information synthesizing data and developing conclusions and generalizations about geographic issues and problems.

Social Studies

(Intermediate)

Standard 4 - Fconomics

Economics i

- 1A. Students explain how societies and nations attempt to satisfy their basic needs and wants utilizing scarce capital, natural, and human resources.
- 1B. Students define basic economic concepts such as scarcity, supply and demand, markets, opportunity costs, resources, productivity, economic growth, and systems.
- 1C. Students understand how scarcity requires people and nations to make choices which involve costs and future considerations.
- 1D. Students understand how people in the United States and throughout the world are both producers and consumers of goods and services.
- 1E. Students investigate how people in the United States and throughout the world answer three fundamental economic questions and solve basic economic problems.
- 1F. Students describe how traditional, command, market, and mixed economies answer three fundamental economic questions.
- 1G. Students explain how nations throughout the world have joined with one another to promote economic development and growth.

Economics ii

- 1A. Students identify and collect economic information from standard reference works, newspapers, periodicals, computer databases, textbooks and other primary and secondary sources.
- 1B. Students organize and classify economic information by distinguishing relevant from irrelevant information, placing ideas in chronological order, and selecting appropriate labels for data.
- 1C. Students evaluate economic data by differentiating fact from opinion and identifying frames of reference.
- 1D. Students develop conclusions about economic issues and problems by creating broad statements which summarize findings and solutions.
- 1E. Students present economic information by using media and other appropriate visuals such as tables, charts, and graphs to communicate ideas and conclusions.

Social Studies

(Intermediate)

Standard 5 - Civics, Citizenship, and Government

Civics, Citizenship and Government i

- 1A. Students analyze how the values of a nation affect the guarantee of human rights and make provisions for human needs.
- 1B. Students consider the nature and evolution of constitutional democracies.
- 1C. Students explore the rights of citizens in other parts of the hemisphere and determine how they are similar to and different from the rights of American citizens.
- 1D. Students analyze the sources of a nation's values as embodied in its constitution, statutes, and important court cases.

Civics, Citizenship and Government ii

- 1A. Students understand how civic values reflected in United States and New York State constitution have been implemented through laws and practices.
- 1B. Students understand that the New York State Constitution, along with a number of other documents, served as a model for the development of the United States Constitution.
- 1C. Students compare and contrast the development and evolution of the constitutions of the United States and New York State.
- 1D. Students define federalism and describe the powers granted the national and state governments by the United States Constitution.
- 1E. Students value the principles, ideals, and core values of the American democratic system based upon the premises of human dignity, liberty, justice, and equality.
- 1F. Students understand how the United States and New York State Constitutions support majority rule but also protect the rights of the minority.

Civics, Citizenship and Government iii

- 1A. Students explain what citizenship means in a democratic society, how citizenship is defined in the Constitution and other laws of the land, and how the definition of citizenship has changed in the United States and New York State over time.
- 1B. Students understand that the American legal and political systems guarantee and protect the rights of citizens and assume that citizens will hold and exercise certain civic values and fulfill certain civic responsibilities.
- 1C. Students discuss the role of an informed citizen in today's changing world.
- 1D. Students explain how Americans are citizens of their states and of The United States.

Social Studies

(Intermediate)

Standard 5 - Civics, Citizenship, and Government -con't

Civics, Citizenship and Government iv

- 1A. Students respect the rights of others in discussions and classroom debates regardless of whether or not one agrees with their viewpoint.
- 1B. Students explain the role that civility plays in promoting effective citizenship in preserving democracy.
- 1C. Students participate in negotiation and compromise to resolve classroom, school, and community disagreements and problems.

The Arts

(Intermediate)

Standard 1- Creating, Performing, and Participating in the Arts

Dance

- 1A. Students know and demonstrate a range of movement elements and skills (such as balance, alignment, elevation, and landing) and basic dance steps, positions, and patterns.
- 1B. Students dance a range of forms from free improvisation to structured choreography.
- 1C. Students create or improvise dance phrases, studies, and dances, alone and/or in collaboration with others, in a variety of contexts.
- 1D. Students demonstrate the ability to take various roles in group productions and performances.

Music

- 2A. Students compose simple pieces that reflect a knowledge of melodic, rhythmic, harmonic, timbre, and dynamic elements.
- 2B. Students sing and/or play alone and in combination with other voice or instrument parts, a varied repertoire of folk, art, and contemporary songs, from notation, with a good tone, pitch, duration and loudness.
- 2C. Students improvise short musical compositions that exhibit cohesiveness and musical expression.
- 2D. Students in performing ensembles, read moderately easy/moderately difficult music (New York State School Music Association [NYSSMA] level III-IV) and respond appropriately to the gestures of the conductor.
- 2E. Students identify and use, in individual and group experiences, some of the roles, processes, and actions for performing and composing music of their own and others, and discuss ways to improve them.

Theatre

- 3A. Students use improvisation and guided play writing to communicate ideas and feelings.
- 3B. Students imitate experiences through pantomime, play making, dramatic play, story dramatization, story telling, and role playing, improvisation and guided play writing.
- 3C. Students use language, voice, gesture, movement, and observation to create character and interact with others in improvisation, rehearsal and performance.
- 3D. Students create props, scenery, and costumes through individual and group effort.
- 3E. Students identify and use, in individual and group experiences, some of the roles, processes, and actions for performing and creating theatre pieces and improvisational drama within the school/community, and discuss ways to improve them.

The Arts

(Intermediate)

Standard 1- Creating, Performing, and Participating in the Arts -con't

- 4A. Students produce a collection of art works, in a variety of mediums, based on a range of individual and collective experiences.
- 4B. Students know and use a variety of sources for developing and conveying ideas, images, themes, symbols, and events in their creation of art.
- 4C. Students use the elements and principles of art to communicate specific meanings to others in their art work.
- 4D. Students, during the creative process, reflect on the effectiveness of selected mediums or techniques to convey intended meanings.
- 4E. Students identify and use, in individual and group experiences, some of the roles and means for designing, producing, and exhibiting art works and discuss ways to improve them.

The Arts

(Intermediate)

Standard 2- Knowing and Using Arts Materials and Resources

Dance

- 1A. Students demonstrate knowledge of sources for understanding dance technologies: live, print, video, computer, etc.
- 1B. Students demonstrate knowledge of how human structure and function affect movement in parts of dances and dances that they know or have choreographed.
- 1C. Students demonstrate knowledge of audience/performer responsibilities and relationships in dance.
- 1D. Students demonstrate knowledge of differences in performance venue and the events presented in each.

Music

- 2A. Students use traditional or nontraditional sound sources, including electronic ones, in composing and performing simple pieces.
- 2B. Students use school and community resources to develop information on music and musicians.
- Students use current technology to create, produce and record/playback music.
- 2D. Students identify a community-based musical interest or role and explain the skills, knowledge, and resources necessary to pursue the interest or adopt the role.
- 2E. Students demonstrate appropriate listening and other participatory responses to music of a variety of genres and cultures.
- 2F. Students investigate some career options related to their musical interests.

Theatre

- 3A. Students visit theatre technology facilities, including the local high school facility, and interact with professionals and theatre students to learn about theatre technology (e.g., lighting, staging, sound, etc.).
- 3B. Students use the school or community library/media centers and other resources to develop information on various theatre-related topics.
- 3C. Students know about local theatrical institutions, attend performances in school and in the community, and demonstrate appropriate audience behavior.
- 3D. Students discuss vocations/avocations with theatre professionals and identify the skills and preparation necessary for theatre vocations/avocations.

The Arts

(Intermediate)

Standard 2- Knowing and Using Arts Materials and Resources-con't

- 4A. Students develop skills with a variety of art materials and competence in at least one medium.
- 4B. Students use the computer and other electronic media to communicate visual ideas.
- 4C. Students take advantage of community opportunities and cultural institutions to learn from professional artists, look at original art, and increase their understanding of art.
- 4D. Students understand the variety of careers related to visual arts and the skills necessary to pursue some of them.

The Arts

(Intermediate)

Standard 3- Responding to and Analyzing Works of Art

Dance

- 1A. Students demonstrate knowledge of the technical language used in discussing dance performances.
- 1B. Students demonstrate knowledge of choreographic principles and processes.
- 1C. Students express to others their understanding of specific dance performances, including perceptions, descriptions, analyses, interpretations and evaluations.

Music

- 2A. Students, through listening, analyze and evaluate their own and others' performances, improvisations, and compositions by identifying and comparing them with similar works and events.
- 2B. Students use appropriate terms to reflect a working knowledge of the musical elements.
- 2C. Students demonstrate a basic awareness of the technical skills musicians must develop to produce an aesthetically acceptable performance.
- 2D. Students use appropriate terms to reflect a working knowledge of socialmusical functions and uses (appropriate choices of music for common ceremonies and other events).
- 2E. Students use basic scientific concepts to explain how music-related sound is produced, transmitted through air, and perceived.
- 2F. Students use terminology from music and other arts to analyze and compare the structures of musical and other artistic and literary works.

Theatre

- 3A. Students use the techniques and vocabulary of theatre criticism, both written and oral, to discuss theatre experiences and improve individual and group performances.
- 3B. Students examine and discuss the use of other art forms in a theatre production.
- 3C. Students explain how drama/theatre experiences relate to other literary and artistic events.

- 4A. Students discuss and write their analyses and interpretations of their own works of art and the art of others, using appropriate critical language.
- 4B. Students identify, analyze, and interpret the visual and sensory characteristics that they discover in natural and human-made forms.
- 4C. Students compare the ways ideas and concepts are communicated through visual art with the various ways that those ideas and concepts are manifested in other art forms.
- 4D. Students compare the ways ideas, themes and concepts are communicated through visual arts in other discipline, and the various ways that those ideas, themes, and concepts are manifested within the discipline.

The Arts

(Intermediate)

Standard 4- Understanding the Cultural Dimensions and Contributions of the Arts

Dance

- 1A. Students identify the major dance forms of specific world cultures past and present.
- 1B. Students identify some of the major dance artists from diverse cultures.
- 1C. Students show how specific dance forms are related to the culture from which they come.

Music

- 2A. Students identify the cultural contexts of a performance or recording and perform (with movement, where culturally appropriate) a varied repertoire of folk, art, and contemporary selections from the basic cultures that represent the peoples of the world.
- 2B. Students identify from a performance or recording the titles and composers of well-known examples of classical concert music and blues/jazz selections.
- 2C. Students discuss the current and past cultural, social, and political uses for the music they listen to and perform.
- 2D. Students, in performing ensembles, read and perform repertoire in a culturally authentic manner.

Theatre

- 3A. Students improvise scenes based on information about various cultures.
- 3B. Students create intercultural celebrations using props, settings, and costumes.
- 3C. Students explain how drama/theatre experiences relate to other themselves and others.

- 4A. Students demonstrate how art works and artifacts from diverse world cultures reflect aspects of those cultures.
- 4B. Students demonstrate the ways in which some particular art works and artifacts reflect important aspects of the diverse cultures of the United States.
- 4C. Students create art works that reflect a particular historical period of a culture.

Languages Other Than English

(Checkpoint B)

Standard 1- Communication Skills

Modern Languages i

- 1A. Students can comprehend language consisting of simple vocabulary and structures in face-to-face conversation with peers and familiar adults.
- 1B. Students comprehend the main idea of more extended conversations with some unfamiliar vocabulary and structures as well as cognates of English words.
- 1C. Students call upon repetition, rephrasing, and nonverbal cues to derive or convey meaning from a language other than English.
- 1D. Students use appropriate strategies to initiate and engage in simple conversations with more fluent or native speakers of the same age group, familiar adults, and providers of common public services.

Modern Languages ii

- 1A. Students can understand the main idea and some details of simple informative materials written for native speakers.
- 1B. Students compose short, informal notes and messages to exchange information with members of the target culture.

Latin *i*

- 2A. Students can read and understand simple connected materials written in Latin.
- 2B. Students write simple responses to oral, visual, or written stimuli.
- 2C. Students demonstrate an awareness of the vocabulary, grammar, derivation, and word structure of English.

Latin ii

2A. Students can recognize and comprehend simple spoken Latin statements and questions based on classroom situations.

American Sign Language

- 3A. Students can use receptive skills to comprehend simple statements and questions in standard dialect.
- 3B. Students can express basic needs and compose statements, questions and short messages to signers of the same age group and to familiar adults.
- 3C. Students can initiate and engage in simple face-to-face conversations.

Native American Languages i

- 4A. Students can comprehend simple statements and questions in the context of the classroom and the main ideas of more extended messages and conversations.
- 4B. Students can initiate and respond to simple face-to-face conversations.

Languages Other Than English

(Checkpoint B)

Standard 1- Communication Skills - con't

Native American Languages ii

- 4A. Students can understand simple narrative and descriptive authentic materials and edited texts within a familiar context.
- 4B. Students can read Native texts or stories aloud with accurate pronunciation and attention to dialogue.
- 4C. Students can write short communications that are comprehensible to native speakers used to dealing with students. Difficulties still occur when expressing more complex thoughts.

Languages Other Than English

(Checkpoint B)

Standard 2- Cultural Understanding

Modern Languages

- 1A. Students can exhibit more comprehensive knowledge of cultural traits and patterns.
- 1B. Students draw comparisons between societies.
- 1C. Students recognize that there are important linguistic and cultural variations among groups that speak the same target language.
- 1D. Students can understand how words, body language, rituals, and social interactions influence communication.

Latin

- 2A. Students can demonstrate increased knowledge of Greco-Roman myths and legends, daily life and history, art, and architecture, and of their influence on later civilizations.
- 2B. Students can read culturally authentic passages of Latin adapted from Latin authors.
- 2C. Students can apply knowledge of Latin literature, authors, and techniques of style to world literary traditions.

American Sign Language

- 3A. Students can demonstrate more comprehensive knowledge of the Deaf culture.
- 3B. Students can draw comparisons about different societies both within the Deaf culture and other cultures.
- 3C. Students can recognize important linguistic and cultural variations among different groups within the culture and in the various states and Canadian provinces where American Sign Language is used.

Native American Languages

- 4A. Students can demonstrate increased knowledge of Native culture through their myths and legends, art and architecture, and literature and government.
- 4B. Students can recognize how Native cultural ideas exist within modern America.

Health, Physical Education, Family and Consumer Sciences

(Intermediate)

Standard 1- Personal Health and Fitness

Health Education

- 1A. Students integrate knowledge of basic body systems with an understanding of the changes that accompany puberty.
- 1B. Students apply prevention and risk reduction strategies in adolescent health problems.
- 1C. Students demonstrate the necessary knowledge and skills to promote healthy adolescent development.
- 1D. Students analyze the multiple influences which affect health decisions and behaviors.

Physical Education

- 2A. Students demonstrate competency in a variety of physical activities (games, sports, exercises) that provide conditioning for each fitness area.
- 2B. Students know that motor skills progress in complexity and need to be sued in the context of games and sports with additional environmental constraints.
- 2C. Students combine and integrate fundamental skills and adjust technique based on feedback, including self-assessment.
- 2D. Students understand the relationship between physical activity and the prevention of illness, disease, and premature death.
- 2E. Students develop and implement a personal fitness plan based on self-assessment and goal setting, understand physiological changes that result from training, and understand the health benefits of regular participation in activity.
- 2F. Students develop leadership, problem solving, cooperation, and team work by participating in group activities.

Family and Consumer Sciences

- 3A. Students understand the relationship among diet, health, and physical activities; evaluate their own eating patterns; and use appropriate technology and resources to make food selections and prepare simple, nutritional meals.
- 3B. Students apply principles of food safety and sanitation.
- 3C. Students recognize the mental, social, and emotional aspects of good health.
- 3D. Students apply decision making process to dilemmas related to personal health.

Health, Physical Education, Family and Consumer Sciences

(Intermediate)

Standard 2- A Safe and Healthy Environment

Health Education

- 1A. Students assess potentially dangerous situations and demonstrate the skills to avoid or reduce their risks.
- 1B. Students demonstrate personal and social skills which enhance personal health and safety.
- 1C. Students understand the need for personal involvement in improving the environment.

Physical Education

- 2A. Students understand the risks of injury if physical activity is performed incorrectly or performed in extreme environmental conditions (equipment, facilities) as well as the emotional conditions essential for safety.
- 2B. Students develop skills of cooperation and collaboration, as well as fairness, sportsmanship, and respect for others.
- 2C. Students work constructively with others to accomplish a goal in a group activity, demonstrating consideration for others involved.
- 2D. Students understand the physical and environmental dangers associated with particular activities and demonstrate proper procedures for safe participation in games, sports, and recreational pursuits.
- 2E. Students understand the role of physical activity, sport, and games as a balance between cooperative and competitive behaviors and as a possible arena in which to develop and sharpen leadership and problem solving skills, and understand the physical, emotional, and social benefits of participation in physical activities.

Family and Consumer Sciences

- 3A. Students demonstrate the principles of safe and healthy child care.
- 3B. Students know the basics of managing a safe and healthy home.
- 3C. Students use age-appropriate techniques to select and maintain clothing.

Health, Physical Education, Family and Consumer Sciences

(Intermediate)

Standard 3- Resource Management

Health Education

- 1A. Students distinguish between valid and invalid health information, products and services.
- 1B. Students recognize how cultural beliefs influence health behaviors and the use of health services.
- 1C. Students demonstrate the ability to work cooperatively when advocating for healthy individuals, families and schools.
- 1D. Students analyze how media and technology influence the selection of health information, products and services.
- 1E. Students recognize the need to be an advocate for family and community health.
- 1F. Students demonstrate the ability to access community health services for prevention, illness, and emergency care.

Physical Education

- 2A. Students should be informed consumers, aware of the alternatives available to them within their communities for physical activity and should be able to evaluate facilities and programs available.
- 2B. Students demonstrate the ability to locate physical activity information, products, and services.
- 2C. Students know some career options in the field of physical fitness and sports.

Family and Consumer Sciences

- 3A. Students understand how the family can provide for the economic, physical, and emotional needs of its members.
- 3B. Students understand the resources available to them, make informed decisions about the use of those resources, and know some ways to expand resources.
- 3C. Students are able to budget their time and money.
- 3D. Students understand how working contributes to a quality living environment.
- 3E. Students identify their own abilities and interests as possible guides to career choice.

Career Development and Occupational Studies (Intermediate)

Standard 1- Career Development

No Component Available

- 1A. Students continue development of a career plan that would assist in the transition from school to eventual entry into a career option of their choosing.
- 1B. Students demonstrate an understanding of the relationship among personal interests, skills and abilities, and career research.
- 1C. Students understand the relationship of personal interests, skills, and abilities to successful employment.
- 1D. Students demonstrate an understanding of the relationship between the changing nature of work and educational requirements.
- 1E. Students understand the relationship of personal choices to future career decisions.

Career Development and Occupational Studies (Intermediate)

Standard 2- Integrated Learning

No Component Available

- 1A. Students apply academic knowledge and skills using an interdisciplinary approach to demonstrate the relevance of how these skills are applied in work-related situations in local, state, national, and international communities.
- 1B. Students solve problems that call for applying academic knowledge and skills.
- 1C. Students use academic knowledge and skills in an occupational context, and demonstrate the application of these skills by using a variety of communication techniques (e.g. sign language, pictures, videos, reports, and technology.)

Career Development and Occupational Studies (Intermediate)

Standard 3- Universal Foundation Skills

Basic Skills

1A. Students listen to and read the ideas of others and analyze what they hear and read; acquire and use information from a variety of sources; and apply a combination of mathematical operations to solve problems in oral or written form.

Thinking Skills

2A. Students evaluate facts, solve advanced problems, and make decisions by applying logic and reasoning skills.

Personal Qualities

3A. Students demonstrate an understanding of the relationship between individuals and society and interact with others in a positive manner.

Interpersonal Skills

4A. Students demonstrate the ability to work with others, present facts that support arguments, listen to dissenting points of view, and reach a shared decision.

Technology

5A. Students select and use appropriate technology to complete a task.

Managing Information

6A. Students select and communicate information in an appropriate format (e.g. oral, written, graphic, pictorial, and multimedia.)

Managing Resources

7A. Students understand the material, human, and financial resources needed to accomplish tasks and activities.

Systems

8A. Students understand the process of evaluating and modifying systems within an organization.

Career Development and Occupational Studies (Specialized)

Standard 4- Career Majors

Business/Information Systems i

1A. Students demonstrate an understanding of business, marketing, and multinational economic concepts, perform business-related mathematical computations, and analyze/interpret business-related numerical information.

Business/Information Systems ii

1A. Students select, apply, and troubleshoot hardware and software used in the processing of business transactions.

Business/Information Systems iii

1A. Students prepare, maintain, interpret/analyze, and transmit/distribute information in a variety of formats while demonstrating the oral, nonverbal, and written communication skills essential for working in today's international service-/information-/technological-based economy.

Business/Information Systems iv

1A. Students demonstrate an understanding of the interrelatedness of business, social, and economic systems/subsystems.

Business/Information Systems *v*

1A. Students identify, organize, plan, and allocate resources (e.g. financial, materials/facilities, human, time) in demonstrating the ability to manage their lives as learners, contributing family members, globally competitive workers, and self-sufficient.

Business/Information Systems vi

1A. Students exhibit interpersonal skills essential for success in the multinational business world, demonstrate basic leadership abilities/skills, and function effectively as members of a work group or team.

Health Services i

2A. Students apply knowledge/skills acquired in academic subjects to the health care environment.

Health Services ii

2A. Students understand the current health care system and its impact on health careers.

Health Services iii

2A. Students develop knowledge of the concept of optimal health and identify factors that affect health maintenance

Career Development and Occupational Studies (Specialized)

Standard 4- Career Majors - con't

Health Services iv

2A. Students know the importance of performing their role in the health care system in accordance with laws, regulations, policies, ethics, and the rights of clients.

Health Services v

2A. Students identify safety hazards in a health care setting and prevent illness or injury through safe work practices.

Health Services vi

2A. Students communicate information in a variety of formats and media.

Health Services vii

2A. Students interact effectively and sensitively with all other members of the health care team in order to provide high-quality client care.

Health Services viii

2A. Students identify procedures within their scope of practice and job description and perform them accurately and in a timely fashion.

Engineering/Technologies i

3A. Students develop practical understanding of engineering technology through reading, writing, sample problem solving, and employment experiences.

Engineering/Technologies ii

3A. Students demonstrate how all types of engineering/technical organizations, equipment (hardware/software), and well-trained human resources assist and expedite the production/distribution of goods and services.

Engineering/Technologies iii

3A. Students demonstrate knowledge of planning, product development and utilization, and evaluation that meets the needs of industry.

Human and Public Services i

4A. Students demonstrate professional, ethical, and legal responsibilities toward customers.

Human and Public Services ii

4A. Students demonstrate effective communication skills needed to meet the expectations of human and public services consumers.

Career Development and Occupational Studies

(Specialized)

Standard 4- Career Majors – con't

Human and Public Services iii

4A. Students demonstrate knowledge of the principles of sanitation used to prevent the transmission of disease-producing microorganisms from one person/object to another.

Human and Public Services iv

4A. Students understand the process of human growth and development and its influence on client needs.

Human and Public Services v

4A. Students demonstrate how to interact effectively and sensitively with others.

Human and Public Services vi

4A. Students provide safe environments for others.

Human and Public Services vii

4A. Students solve problems, set goals, and make decisions in order to provide services to best meet the needs of others.

Human and Public Services viii

4A. Students apply personal and resource management skills.

Human and Public Services ix

4A. Students exhibit and promote a positive image of wellness.

Natural and Agricultural Sciences i

5A. Students demonstrate a solid base of knowledge and skills in natural and agricultural sciences.

Natural and Agricultural Sciences ii

5A. Students demonstrate the ability to use technology to assist in production and distribution of food goods and services of today's agricultural industries.

Natural and Agricultural Sciences iii

5A. Students prepare, maintain, interpret, and disseminate quantitative and qualitative pieces of information relating to the natural and agricultural sciences.

Career Development and Occupational Studies (Specialized)

Standard 4- Career Majors – con't

Natural and Agricultural Sciences iii

5A. Students prepare, maintain, interpret, and disseminate quantitative and qualitative pieces of information relating to the natural and agricultural sciences.

Natural and Agricultural Sciences iv

5A. Students demonstrate an understanding of the interrelationship between agricultural businesses and organizations designed to produce products, services, and information.

Natural and Agricultural Sciences v

5A. Students demonstrate the ability to manage personal time, business, and financial resources.

Natural and Agricultural Sciences vi

5A. Students demonstrate the interpersonal skills and abilities needed to function within a sophisticated and sometimes complicated agricultural environment.

Natural and Agricultural Sciences vii

5A. Students demonstrate awareness of the importance of safety and accident prevention in all agricultural situations.

English Language Arts

(Commencement)

Standard 1- Language for Information and Understanding

Listening and Reading

- 1A. Students interpret and analyze complex informational texts and presentations, including technical manuals, professional journals, newspaper and broadcast editorials, electronic networks, political speeches and debates, and primary source material in their subject area courses.
- 1B. Students synthesize information from diverse sources and identify complexities and discrepancies in the information.
- 1C. Students use a combination of techniques (e.g. previewing, use of information from texts.
- 1D. Students make distinctions about the relative value and significance of specific data facts and ideas.
- 1E. Students make perceptive and well developed connections to prior knowledge.
- 1F. Students evaluate writing strategies and presentational features that affect interpretation of the information.

Speaking and Writing

- 2A. Students write and present research reports, feature articles, and thesis/support papers on a variety of topics related to all school subjects.
- 2B. Students present a controlling idea that conveys an individual perspective and insight into the topic.
- 2C. Students use a wide range of organizational patterns such as chronological, logical (both deductive and inductive), cause and effect, and comparison/contrast.
- 2D. Students support interpretations and decisions about relative significance of information with explicit statement, evidence, and appropriate argument.
- 2E. Students revise and improve early drafts by restructuring, correcting errors, and revising for clarity and effect.
- 2F. Students use Standard English skillfully, applying established rules and conventions for presenting information and making use of a wide range of grammatical constructions and vocabulary to achieve an individual style that communicates effectively.

English Language Arts

(Commencement)

Standard 2- Language for Literary Response and Expression

Listening and Reading

- 1A. Students read and view independently and fluently across many genres of literature from many cultures and historical periods.
- 1B. Students identify the distinguishing features of different literary genres, periods and traditions and use those features to interpret the work.
- 1C. Students recognize and understand the significance of a wide range of literary elements and techniques, (including figurative language, imagery, allegory, irony, blank verse, symbolism, stream-of-consciousness) and use those elements to interpret the work.
- 1D. Students understand how multiple levels of meaning are conveyed in a text.
- 1E. Students read aloud expressively to convey a clear interpretation of the work.
- 1F. Students evaluate literary merit based on an understanding of the genre and the literary elements, and the literary period and tradition.

Speaking and Writing

- 2A. Students present responses to and interpretations of works of recognized literary merit with references to the principal features of the genre, the period, and literary tradition, and drawing on their personal experiences and knowledge.
- 2B. Students produce literary interpretations that explicate the multiple layers of meaning.
- 2C. Students write original pieces in a variety of literary forms, correctly using the conventions of the genres and using structure and vocabulary to achieve an effect.
- 2D. Students use Standard English skillfully and with an individual style.

English Language Arts

(Commencement)

Standard 3- Language for Critical Analysis and Evaluation

Listening and Reading

- 1A. Students analyze, interpret, and evaluate information, ideas, information, organization, and language of a wide range of general and technical texts and presentations across subject areas, including technical manuals, professional journals, political speeches, and literary criticism.
- 1B. Students evaluate the quality of the texts and presentations from a variety of critical perspectives within the field of study (e.g., using both Poe's elements of a short story and the elements of "naturalist fiction" to evaluate a modern story).
- 1C. Students make precise determination about the perspective of a particular writer or speaker by recognizing the relative weight they place on particular arguments and criteria (e.g., one critic condemns a biography as too long and rambling; another praises it for its accuracy and never mentions its length).
- 1D. Students evaluate and compare their own and others' work with regard to different criteria and recognize the change in evaluations when different criteria are considered to be more important.

Speaking and Writing

- 2A. Students present orally and in writing well-developed analyses of issues, ideas, and texts, explaining the rationale for their positions and analyzing their positions from a variety of perspectives in such forms as formal speeches, debates, thesis/support papers, literary critiques and issues analyses.
- 2B. Students make effective use of details, evidence and arguments and of presentational strategies to influence an audience to adopt their position.
- 2C. Students monitor and adjust their own oral and written presentations to have the greatest influence on a particular audience.
- 2D. Students use Standard English, a broad and precise vocabulary, and the conventions of formal oratory and debate.

English Language Arts

(Commencement)

Standard 4- Language for Social Interaction

Listening and Reading

- 1A. Students engage in conversations and discussions on academic, technical, and community subjects, anticipating listeners' needs and skillfully addressing them.
- 1B. Students express their thoughts and views clearly with attention to the perspectives and voiced concerns of the others in the conversation.
- 1C. Students use appropriately the language conventions for a wide variety of social situations, such as informal conversations, first meetings with peers or adults, and more formal situations such as job interviews or customer service.

Reading and Writing

- 2A. Students use a variety of print and electronic forms for social communication with peers and adults.
- 2B. Students make effective use of language and style to connect the message with the audience and context.
- 2C. Students study the social conventions and language conventions of writers from other groups and cultures and use those conventions to communicate with members of those groups.

Math, Science, and Technology

(Commencement)

Standard 1- Analysis, Inquiry and Design

Mathematical Analysis i

1A. Students use algebraic and geometric representation to describe and compare data.

Mathematical Analysis ii

1A. Students use deductive reasoning to construct and evaluate conjectures and arguments, recognizing that patterns and relationships in mathematics assist them in arriving at these conjectures and arguments.

Mathematical Analysis iii

1A. Students apply algebraic and geometric concepts and skills to the solution of problems.

Scientific Inquiry i

- 2A. Students elaborate on basic scientific and personal explanations of natural phenomena, and develop extended visual models and mathematical formulations to represent their thinking.
- 2B. Students hone ideas through reasoning, library research, and discussion with others, including experts.
- 2C. Students work towards reconciling competing explanations; clarifying points of agreement and disagreement.
- 2D. Students coordinate explanations at different levels of scale, points of focus, and degrees of complexity and specificity and recognize the need for such alternative representations of the natural world.

Scientific Inquiry ii

- 2A. Students devise ways of making observations to test proposed explanations.
- 2B. Students refine their research ideas through library investigations, including electronic information retrieval and reviews of the literature, and through peer feedback obtained from review and discussion.
- 2C. Students develop and present proposals including formal hypotheses to test their explanations, i.e., they predict what should be observed under specified conditions if the explanation is true.
- 2D. Students carry out their research plan for testing explanations, including selecting and developing techniques, acquiring and building apparatus, and recording observations as necessary.

Math, Science, and Technology

(Commencement)

Standard 1- Analysis, Inquiry and Design - con't

Scientific Inquiry iii

- 2A. Students use various means of representing and organizing observations (e.g., diagrams, tables, charts, graphs, equations, matrices) and insightfully interpret the organized data.
- 2B. Students apply statistical analysis techniques when appropriate to test if chance alone explains the result.
- 2C. Students assess correspondence between the predicted result contained in the hypothesis and the actual result and reach a conclusion as to whether or not the explanation on which the prediction was based is supported.
- 2D. Based on the results of the test and through public scrutiny, they revise the explanation and contemplate additional research.
- 2E. Students develop a written report for public scrutiny that describes their proposed explanation, including a literature review, the research they carried out, its result, and suggestions for further research.

Engineering Design

- 3A. Students engage in the following step in a design process: initiate and carry out a through investigation of an unfamiliar situation and identify needs and opportunities for technological invention or innovation.
- 3B. Students engage in the following step in a design process: identify, locate, and use a wide range of information resources, and document through notes and sketches how findings relate to the problem.
- 3C. Students engage in the following step in a design process: generate creative solutions, break ideas into significant functional elements, and explore possible refinements; predict possible outcomes using mathematical and functional modeling techniques; choose the optimal solution to the problem, clearly documenting ideas against design criteria and constraints; and explain how human understands, economics, ergonomics, and environmental consideration have influenced the solution.
- 3D. Students engage in the following step in a design process: develop work schedules and working plans which include optimal use and cost of materials, processes, time, and expertise; construct a model of the solution, incorporating developmental modifications while working to a high degree of quality (craftsmanship).
- 3E. Students engage in the following step in a design process: devise a test of the solution according to the design criteria and perform the test; record, portray, and logically evaluate performance test results through quantitative, graphic and verbal means. Use a variety of creative verbal and graphic techniques effectively and persuasively to present conclusions, predict impacts and new problems, and suggest and pursue modifications.

Math, Science, and Technology

(Commencement)

Standard 2- Information Systems

Information Systems i

- 1A. Students understand and use the more advanced features of word processing, spreadsheets, and data-base software.
- 1B. Students prepare multimedia presentations demonstrating a clear sense of audience and purpose.
- 1C. Students access, select, collate, and analyze information obtained from a wide range of sources such as research data bases, foundations, organizations, national libraries, and electronic communication networks, including the internet.
- 1D. Students receive news reports from abroad and work in groups to produce newspapers reflecting the perspectives of different countries.
- 1E. Students utilize electronic networks to share information.
- 1F. Students model solutions to a range of problems in mathematics, science, and technology using computer simulation software.

Information Systems ii

- 1A. Students work with a virtual community to conduct a project or solve a problem using the network.
- 1B. Students discuss how applications of information technology can address some major global problems and issues.
- 1C. Students discuss the environmental, ethical, moral and social issues raised by the use and abuse of information technology.

Information Systems iii

- 1A. Students explain the impact of the use and abuse of electronically generated information on individuals and families.
- 1B. Students evaluate software packages relative to their suitability to a particular application and their ease of use.
- 1C. Students discuss the ethical and social issues raised by the use and abuse of information systems.

Math, Science, and Technology

(Commencement)

Standard 3- Mathematics

Mathematical Reasoning

- 1A. Students construct simple logical arguments.
- 1B. Students follow and judge the validity of arguments.
- 1C. Students construct valid arguments.
- 1D. Students construct proofs based on deductive reasoning.
- 1E. Students construct indirect proofs.

Number and Numeration

- 2A. Students understand and use rational and irrational numbers.
- 2B. Students recognize the order of the real numbers.
- 2C. Students apply the properties of the real numbers to various subsets of numbers.
- 2D. Students recognize the hierarchy of the complex number system.
- 2E. Students model the structure of the complex number system.

Operations

- 3A. Students use addition, subtraction, multiplication, division, and exponentiation with real numbers and algebraic expressions.
- 3B. Students develop an understanding of and use the composition of functions and transformations.
- 3C. Students use integral exponents on integers and algebraic expressions.
- 3D. Students use field properties to justify mathematical procedures.
- 3E. Students use transformations on figures and functions in the coordinator plane.
- 3F. Students use rational exponents on real numbers and all operations on complex numbers.
- 3G. Students combine functions using the basic operations and the composition of two functions.
- 3H. Students recognize and identify symmetry and transformations on figures.

Math, Science, and Technology

(Commencement)

Standard 3- Mathematics - con't

Modeling/Multiple Representation

- 4A. Students represent problem situations symbolically by using algebraic expressions, sequences, tree diagrams, geometric figures, and graphs.
- 4B. Students manipulate symbolic representations to explore concepts at an abstract level.
- 4C. Students choose appropriate representations to facilitate the solving of a problem.
- 4D. Students use learning technologies to make and verify geometric conjectures.
- 4E. Students justify the procedures for basic geometric constructions.
- 4F. Students use transformations in the coordinate plane.
- 4G. Students develop meaning for basic conic sections.
- 4H. Students develop and apply the concept of basic loci to compound loci.
- 4I. Students use graphing utilities to create and explore geometric and algebraic models.
- 4J. Students model real-world problems with systems of equations and inequalities.
- 4K. Students model vector quantities both algebraically and geometrically.
- 4L. Students represent graphically the sum and difference of two complex numbers.
- 4M. Students model quadratic inequalities both algebraically and graphically.
- 4N. Students model the composition of transformations.
- 40. Students determine the effects of changing parameters of the graphs of functions.
- 4P. Students use polynomial, rational, trigonometric, and exponential functions to model real-world relationships.
- 4Q. Students use algebraic relationships to analyze the conic sections.
- 4R. Students use circular functions to study and model periodic real-world phenomena.

Math, Science, and Technology

(Commencement)

Standard 3- Mathematics - con't

Measurement

- 5A. Students apply formulas to find measures such as length, area, volume, weight, time, and angle in real-world contexts.
- 5B. Students choose the appropriate tools for measurement.
- 5C. Students use dimensional analysis techniques.
- 5D. Students use statistical methods including measures of central tendency to describe and compare data.
- 5E. Students use trigonometry as a method to measure indirectly.
- 5F. Students apply proportions to scale drawings, computer-assisted design blueprints, and direct variation in order to compute indirect measurements.
- 5G. Students relate absolute value, distance between two points, and the slope of a line to the coordinate plane.
- 5H. Students explain the role of error in measurement and its consequence on subsequent calculations.
- 5I. Students use geometric relationships in relevant measurement problems involving geometric concepts.
- 5J. Students derive and apply formulas relating angle measure and arc degree measure in a circle.
- 5K. Students prove and apply theorems related to lengths of segments in a circle.
- 5L. Students define the trigonometric functions in terms of the unit circle.
- 5M. Students relate trigonometric relationships to the area of a triangle and to the general solutions of triangles.
- 5N. Students apply the normal curve and its properties to familiar contexts.
- 50. Students design a statistical experiment to study a problem and communicate the outcomes, including dispersion.
- 5P. Students use statistical methods, including scatter plots and lines of best fit, to make predictions.
- 5Q. Derive formulas to find measures such as length, area, and volume in real-world context.
- 5R. Students choose and apply appropriate units and tools in measurement situations.

Math, Science, and Technology

(Commencement)

Standard 3- Mathematics - con't

Uncertainty

- 6A. Students judge the reasonableness of results obtained from applications in algebra, geometry, trigonometry, probability, and statistics.
- 6B. Students judge the reasonableness of a graph produced by a calculator or computer.
- 6C. Students use experimental or theoretical probability to represent and solve problems involving uncertainty.
- 6D. Students use the concept of random variable in computing probabilities.
- 6E. Students determine probabilities using permutations and combinations.
- 6F. Students use a Bernoulli experiment to determine probabilities for experiments with exactly two outcomes.
- 6G. Students create and interpret applications of discrete and continuous probability distributions.
- 6H. Students make predictions based on interpolations and extrapolations from data.
- 6I. Students use curve fitting to fit data.

Patterns/Functions

- 7A. Students use function vocabulary and notation.
- 7B. Students represent and analyze functions using verbal descriptions, tables, equations and graphic forms of functions.
- 7C. Students analyze the effect of parametric changes on the graphs of functions.
- 7D. Students apply linear, exponential, and quadratic functions in the solution of problems.
- 7E. Students apply and interpret transformations to functions.
- 7F. Students model real-world situations with the appropriate function.
- 7G. Students apply axiomatic structure to algebra and geometry.
- 7H. Students use computers and graphing calculators to analyze mathematical phenomena.
- 7I. Students solve equations with complex roots using a variety of algebraic and graphical methods with appropriate tools.
- 7J. Students evaluate and form the composition of functions.
- 7K. Students solve equations using fractions, absolute values, and radicals.
- 7L. Students use basic transformations to demonstrate similarity and congruence of figures.
- 7M. Students identify and differentiate between direct and indirect isometries.
- 7N. Students analyze inverse functions using transformations.
- 70. Students apply the ideas of symmetries in sketching and analyzing graphs of functions.
- 7P. Students use the normal curve to answer questions about data.
- 7Q. Students develop methods to solve trigonometric equations and verify trigonometric functions.
- 7R. Students translate among the verbal descriptions, tables, equations and graphic forms of functions.

Math, Science, and Technology

(Commencement)

Standard 4- Science

Physical Setting - Key Idea 1

(Earth/Celestial - Relative Motion and Perspective)

- 1A. Students explain complex phenomena, such as tides, variations in day length, solar insolation, apparent motion of the planets, and animal traverse of the constellations.
- 1B. Students describe current theories about the origin of the universe and solar system.

Physical Setting - Key Idea 2

(Air, water, land - Interactions)

- 2A. Students use the concepts of density and heat energy to explain observations of weather patterns, seasonal changes, and the movements of the Earth's plates.
- 2B. Students explain how incoming solar radiation's, ocean currents, and land masses affect weather and climate.

Physical Setting - Key Idea 3

(Matter - Properties)

- 3A. Students explain the properties of materials in terms of the arrangement and properties of the atoms that compose them.
- 3B. Students use atomic and molecular models to explain common chemical reactions.
- 3C. Students apply the principle of conservation of mass to chemical reactions.
- 3D. Students use kinetic molecular theory to explain rates of reactions and the relationships among temperature, pressure, and volume of a substance.

Physical Setting - Key Idea 4

(Energy - Forms)

- 4A. Students observe and describe transmission of various forms of energy.
- 4B. Students explain heat in terms of kinetic molecular theory.
- 4C. Students explain variations in wavelength and frequency in terms of the source of the vibrations that produce them, e.g., molecules, electrons, and molecular particles.
- 4D. Students explain the uses and hazards of radioactivity.

Physical Setting - Key Idea 5

(Energy/Matter - Forces)

- 5A. Students explain and predict different patterns of motion of objects (e.g., linear and angular motion, velocity and acceleration, momentum and inertial).
- 5B. Students explain chemical bonding in terms of the motion of electrons.
- 5C. Students compare energy relationships within an atom's nucleus to those outside the nucleus.

Math, Science, and Technology

(Commencement)

Standard 4- Science - con't

The Living Environment - Key Idea 1 (Living/Non-Living - Characteristics)

- 6A. Students explain how diversity of population within ecosystems relates to the stability of ecosystems.
- 6B. Students describe and explain the structures and functions of the human body at different organizational levels (e.g., systems, tissues, cells, organelles).
- 6C. Students explain how a one-celled organism is able to function despite lacking the levels of organization present in more complex organisms.

The Living Environment - Key Idea 2

(Organisms - Genetic Information)

- 7A. Students explain how the structure and replication of genetic materials result in offspring that resemble their parents.
- 7B. Students explain how the technology of genetic engineering allows humans to alter the genetic makeup of organisms.

The Living Environment - Key Idea 3

(Organisms - Change over time)

8A. Students explain the mechanisms and patterns of evolution.

The Living Environment - Key Idea 4 (Life Cycles)

9A. Students explain how organisms, including humans, reproduce their own kind.

The Living Environment - Key Idea 5

(Organisms - Dynamic Equilibrium)

- 10A. Students explain the basic biochemical processes in living organisms and their importance in maintaining dynamic equilibrium.
- 10B. Students describe disease as a failure of homeostasis.
- 10C. Students relate processes at the system level to the cellular level in order to explain dynamic equilibrium in multi-celled organisms.

The Living Environment - Key Idea 6 (Interdependence)

- 11A. Students explain factors that limit growth of individuals and populations.
- 11B. Students explain the importance of preserving diversity of species and habitats.
- 11C. Students explain how the living and nonliving environments change over time and respond to disturbances.

Math, Science, and Technology

(Commencement)

Standard 4- Science - con't

The Living Environment - Key Idea 7 (Human Impact on Environment)

- 12A. Students describe the range of the interrelationships of humans with the living and nonliving environment.
- 12B. Students explain the impact of technological development and growth in the human population on the living and nonliving environment.
- 12C. Students explain how individual choices and societal actions can contribute to improving the environment.

Math, Science, and Technology

(Commencement)

Standard 5- Technology

Engineering Design

- 1A. Students engage in the following step in a design process: initiate and carry out a thorough investigation of an unfamiliar situation and identify needs and opportunities for technological invention and innovation.
- 1B. Students engage in the following step in a design process: identify, locate, and use a wide range of information resources including subject experts, library references, magazines, videotapes, films, electronic data bases and on-line services, and discuss and document through notes and sketches how findings relate to the problem.
- 1C. Students engage in the following step in a design process: generate creative solution ideas, break ideas into significant functional elements, and explore possible refinements; predict possible outcomes using mathematical and functional modeling techniques; choose the optimal solution to the problem, clearly documenting ideas against design criteria and constraints; and explain how human values, economics, ergonomics, and environmental considerations have influenced the solution.
- 1D. Students engage in the following step in a design process: develop work schedules and plans which include optimal use and cost of materials, processes, time, and expertise; construct a model of the solution, incorporating developmental modifications while working to a high degree of quality (craftsmanship).
- 1E. In a group setting, students devise a test of the solution relative to the design criteria and perform the test; record, portray, and logically evaluate performance test results through quantitative, graphic, and verbal techniques effectively and persuasively to present conclusions, predict impacts and new problems, and suggest and pursue modifications.

Tools, Resources, and Technological Processes

- 2A. Students test, use, and describe the attributes of a range of material (including synthetic and composite materials), information, and energy resources.
- 2B. Students select appropriate tools, instruments, and equipment and use them correctly to process materials, energy, and information.
- 2C. Students explain tradeoffs made in selecting alternative resources in terms of safety, cost, properties, availability, ease of processing, and disposability.
- 2D. Students describe and model methods (including computer-based methods) to control system processes and monitor system outputs.

Math, Science, and Technology

(Commencement)

Standard 5- Technology - con't

Computer Technology

- 3A. Students understand basic computer architecture and describe the function of computer subsystems and peripheral devices.
- 3B. Students select a computer system that meets personal needs.
- 3C. Students attach a modem to a computer system and telephone line, set up and use communication software, connect to various on-line networks, including the Internet, and access needed information using e-mail, telnet, gopher, ftp, and web searches.
- 3D. Students use computer-aided drawing and design (CADD) software to model realistic solutions to design problems.
- 3E. Students develop an understanding of computer programming and attain some facility in writing computer programs.

Technological Systems

- 4A. Students explain why making tradeoffs among characteristics, such as safety, function, cost, ease of operation, quality of post-purchase support, and environmental impact, is necessary when selecting systems for specific purposes.
- 4B. Students model, explain, and analyze the performance of a feedback control system.
- 4C. Students explain how complex technological systems involve the confluence of numerous other systems.

History and Evolution of Technology

5A. Students explain how technological inventions and innovations have caused global growth and interdependence, stimulated economic competitiveness, created new jobs, and made other jobs obsolete.

Impacts of Technology

- 6A. Students explain that although technological effects are complex and difficult to predict accurately, humans can control the development and implementation of technology.
- 6B. Students explain how computers and automation have changed the nature of work.
- 6C. Students explain how national security is dependent upon both military and nonmilitary applications of technology.

Math, Science, and Technology

(Commencement)

Standard 5- Technology - con't

Management of Technology

- 7A. Students develop and use computer-based scheduling project tracking tools, such as flow charts and graphs.
- 7B. Students explain how statistical process control helps to assure high quality output.
- 7C. Students discuss the role technology has played in the operation of successful U.S. businesses and under what circumstances they are competitive with other countries.
- 7D. Students explain how technological inventions and innovations stimulate economic competitiveness and how, in order for an innovation to lead to commercial success, it must be translated into products and services with marketplace demand.
- 7E. Students describe new management techniques (e.g., computer-aided engineering, computer-integrated manufacturing, total quality management, just-in-time manufacturing), incorporate some of these in a technological endeavor, and explain how they have reduced the length of design-to-manufacture cycles, resulted in more flexible factories, and improved quality and customer satisfaction.
- 7F. Students help to manage a group engaged in planning, designing, implementation, and evaluation of a project to gain understanding of the management dynamics.

Math, Science, and Technology

(Commencement)

Standard 6- Interconnectedness: Common Themes

Systems Thinking

- 1A. Students explain how positive feedback and negative feedback have opposite effects on system outputs.
- 1B. Students use an output-process-output feedback diagram to model and compare the behavior of natural and engineered systems.
- 1C. Students define boundary conditions when doing systems analysis to determine what influences a system and how it behaves.

Models

- 2A. Students revise a model to create a more complete or improved representation of the system.
- 2B. Students collect information about the behavior of a system and use modeling tools to represent the operation of the system.
- 2C. Students find and use mathematical models that behave in the same manner as the processes under investigation.
- 2D. Students compare predictions to actual observations using test models.

Magnitude and Scale

- 3A. Students describe the effects of changes in scale on the functioning of physical, biological, or designed systems.
- 3B. Students extend their use of powers of ten notation to understanding the exponential function and performing operations with exponential factors.

Equilibrium and Stability

- 4A. Students describe specific instances of how disturbances might affect a system's equilibrium, from small disturbances that do not upset the equilibrium to larger disturbances (threshold level) that cause the system to become unstable.
- 4B. Students cite specific examples of how dynamic equilibrium is achieved by equality of change in opposing directions.

Patterns of Change

- 5A. Students use sophisticated mathematical models, such as graphs and equations of various algebraic or trigonometric functions.
- 5B. Students search for multiple trends when analyzing data for patterns, and identify data that do not fit into trends.

Optimization

- 6A. Students use optimization techniques, such as linear programming, to determine optimum solutions to problems that can be solved by using quantitative methods.
- 6B. Students analyze subjective decision making problems to explain the trade-offs that can be made to arrive at the best solution.

Math, Science, and Technology

(Commencement)

Standard 7- Interdisciplinary Problem Solving

Connections

- 1A. Students analyze science/technology/society problems and issues on a community, national, or global scale and plan and carry out a remedial course of action.
- 1B. Students analyze and quantify consumer product data, understand environmental and economic impacts, develop a method for judging the value and efficacy of competing products, and discuss cost/benefit and risk/benefit tradeoffs made in arriving at the optimal choice.
- 1C. Students design solutions to real-world problems on a community, national, or global scale using a technological design process that integrates scientific investigation and rigorous mathematical analysis of the problem and of the solution.
- 1D. Students explain and evaluate phenomena mathematically and scientifically by formulating a testable hypothesis, demonstrating the logical connections between the scientific concepts guiding the hypothesis and the design of an experiment, applying and inquiring into the mathematical ideas relating to investigation of phenomena, and using (if needed, designing) technological tools and procedures to assist in the investigation and in the communication of results.

Strategies

- 2A. Students work effectively.
- 2B. Students gather and process information.
- 2C. Students generate and analyze ideas.
- 2D. Students observe common themes.
- 2E. Students realize ideas.
- 2F. Students present results.

Social Studies

(Commencement)

Standard 1- History of the United States and New York

History of the United States and New York i

- 1A. Students analyze the development of American culture, explaining how ideas, values, beliefs, and traditions have changed over time and how they unite all Americans.
- 1B. Students describe the evolution of American democratic values and beliefs as expressed in the Declaration of Independence, the New York State Constitution, the United State Constitution, the Bill of Rights, and other important historical documents.

History of the United States and New York ii

- 1A. Students discuss several schemes for periodizing the history of New York State and the United States.
- 1B. Students develop and test hypotheses about important events, eras, or issues in New York State and United States history, setting clear and valid criteria for judging the importance and significance of these events, eras, or issues.
- 1C. Students compare and contrast the experiences of different groups in the United States.
- 1D. Students examine how the Constitution, United States law, and the rights of citizenship provide a major unifying factor in bringing together Americans from diverse roots and traditions.
- 1E. Students analyze the United States involvement in foreign affairs and a willingness to engage in international politics, examining the ideas and traditions leading to these foreign policies.
- 1F. Students compare and contrast the values exhibited and foreign policies implemented by the United States and other nations over time with those expressed in the United Nations Charter and international law.

History of the United States and New York iii

- 1A. Students compare and contrast the experiences of different ethnic, national, and religious groups, including Native American Indians, in the United States, explaining their contributions to American society and culture.
- 1B. Students research and analyze the major themes and developments in New York State and United States history (e.g. colonization and settlement; Revolution and New national Period; immigration; expansion and reform era; Civil War and Reconstruction; the American labor movement; Great Depression; World Wars; contemporary United States).
- 1C. Students prepare essays and oral reports about the important social, political, economic, scientific, technological, and cultural developments, issues, and events from New York State and United States history.
- 1D. Students understand the interrelationships between world events and developments in New York State and the United States (e.g., causes for immigration, economic opportunities, human rights abuses, and tyranny versus freedom).

Social Studies

(Commencement)

Standard 1- History of the United States and New York - con't

History of the United States and New York iv

- 1A. Students analyze historical narratives about key events in New York State and United States history to identify the facts and evaluate the authors' perspectives.
- 1B. Students consider different historians' analyses of the same event or development in United States history to understand how different viewpoints and/or frames of reference influence historical interpretations.
- 1C. Students evaluate the validity and creditability of historical interpretations of importance events or issues in New York State or United States history, revising interpretations as new information is learned and other interpretations are developed.

Social Studies

(Commencement)

Standard 2- World History

World History i

- 1A. Students define culture and civilization, explaining how they developed and changed over time. Investigate the various components of cultures and civilizations including social customs, norms, values, and traditions; political systems; economic systems, religious and spiritual beliefs; and socialization or education practices.
- 1B. Students understand the development and connectedness of Western civilization and other civilizations and cultures in many areas of the worlds and over time.
- 1C. Students analyze historic events from around the world by examining accounts written from different perspectives.
- 1D. Students understand the broad patterns, relationships, and interactions of cultures and civilizations during particular eras and across eras.
- 1E. Students analyze changing and competing interpretations of issues, events, and developments throughout world history.

World History ii

- 1A. Students distinguish between the past, present, and future by creating multiple-tier timelines that display important events and developments from world history across time and place.
- 1B. Students evaluate the effectiveness of different models for the periodization of important historic events, identifying the reasons why a particular sequence for these events were chosen.
- 1C. Students analyze evidence critically and demonstrate as understanding of how circumstances of time and place influence perspective.
- 1D. Students explain the importance of analyzing narratives drawn from different ties and places to understand historical events.
- 1E. Students investigate key events and developments and major turning points in world history to identify the factors that brought about change and the long-term effects of these changes.

World History iii

- 1A. Students analyze the roles and contributions of individuals and groups to social, political, economic, cultural, and religious practices and activities.
- 1B. Students explain the dynamics of cultural change and how interactions between and among cultures has affected various cultural groups throughout the world.
- 1C. Students examine the social/cultural, political, economic, and religious norms and values of Western and other world cultures.

Social Studies

(Commencement)

Standard 2- World History - con't

World History iv

- 1A. Students identify historical problems, pose analytical questions or hypotheses, research analytical questions or test hypotheses, formulate conclusions or generalizations, raise new questions or issues for further investigation.
- 1B. Students interpret and analyze documents and artifacts related to significant developments and events in world history.
- 1C. Students plan and organize historical research projects related to regional and global interdependence.
- 1D. Students analyze different interpretations of important events, issues, or developments in world history by studying the social, political, and economic context in which they were developed; by testing the data source for reliability and validity, credibility, authority, authenticity, and completeness; and by detecting bias, distortion of the facts, and propaganda by omission, suppression, or invention of facts.

Social Studies

(Commencement)

Standard 3- Geography

Geography i

- 1A. Students understand how to develop and use maps and other graphic representations to display geographic issues, problems, and questions.
- 1B. Students describe the physical characteristics of the Earth's surface and investigate the continual reshaping of the surface by physical processes and human activities.
- 1C. Students investigate the characteristics, distribution, and migration of human populations on the Earth's surface.
- 1D. Students understand the development and interactions of social/cultural, political, economic, and religious systems in different regions of the world.
- 1E. Students analyze how the forces of cooperation and conflict among people influence the division and control of the Earth's surface.
- 1F. Students explain how technological change affects people, places and regions.

Geography ii

- 1A. Students plan, organize, and present geographic research projects.
- 1B. Students locate and gather geographic information from a variety of primary and secondary sources.
- 1C. Students select and design maps, graphs, tables, charts, diagrams, and other graphic representations to present geographic information.
- 1D. Students analyze geographic information by developing and testing inferences and hypotheses, and formulating conclusions from maps, photographs, computer models and other geographic representations.
- 1E. Students develop and test generalizations and conclusions and pose analytical questions based on the results of geographic inquiry.

Social Studies

(Commencement)

Standard 4- Economics

Economics i

- 1A. Students analyze the effectiveness of varying ways societies, nations, and regions of the world attempt to satisfy their basic needs and wants by utilizing scarce resources.
- 1B. Students define and apply basic economic concepts such as scarcity, supply/demand, opportunity costs, production, resources, money and banking, economic growth, markets, cost, competition and world economic systems.
- 1C. Students understand the nature of scarcity and how nations of the world make choices which involve economic and social costs and benefits.
- 1D. Students describe the ideals, principles, structure, practices, accomplishments, and problems related to the United States economic system.
- 1E. Students compare and contrast the United States economic system with other national economic systems, focusing on the three fundamental economic questions.
- 1F. Students explain how economic decision making has become global as a result of an interdependent world economy.
- 1G. Students understand the roles in the economic system of consumers, producers, workers, investors, and voters.

Economics ii

- 1A. Students identify, locate and evaluate economic information from standard reference works, newspapers, periodicals, computer databases, monographs, textbooks, government publications, and other primary and secondary sources.
- 1B. Students Use economic information by identifying similarities and differences in trends; inferring relationships between various elements of an economy: organizing and arranging information in charts, tables, and graphs; extrapolating and making conclusions about economic questions, issues and problems.
- 1C. Students apply a problem-solving model to identify economic problems or issues, generate hypotheses, test hypotheses, investigate and analyze selected data, consider alternative solutions or positions, and make decisions about the best solution or position.
- 1D. Students present economic information and conclusions in different formats, including graphic representations, computer models, research reports and oral presentations.

Social Studies

(Commencement)

Standard 5- Civics, Citizenship, and Government

Civics, Citizenship and Government i

- 1A. Students analyze how the values of a nation and international organization affect the guarantee of human rights and make provisions for human needs.
- 1B. Students consider the nature and evolution of constitutional democracies throughout the world.
- 1C. Students compare various political systems with that of the United States in terms of ideology, structure, function, institutions, decision-making processes, citizenship roles, and political culture.
- 1D. Students identify and analyze advantages and disadvantages of various governmental systems.

Civics, Citizenship and Government ii

- 1A. Students trace the evolution of American values, beliefs and institutions.
- 1B. Students analyze the disparities between civic values expressed in the United States Constitution and the United Nation Universal Declaration of Human Rights and the realities as evidenced in the political, social, and economic life in the United States and throughout the world.
- 1C. Students identify, respect, and model those core civic values inherent in our founding documents that have been forces for unity in American society.
- 1D. Students compare and contrast the Constitutions of the United States and New York State.
- 1E. Students understand the dynamic relationship between federalism and state's rights.

Civics, Citizenship and Government iii

- 1A. Students understand how citizenship includes the exercise of certain personal responsibilities, including voting, considering the rights and interests of others, behaving in a civil manner, and accepting responsibility for the consequences of one's actions.
- 1B. Students analyze issues at the local, state, and national levels and prescribe responses that promote the public interest or general welfare, such as planning and carrying out a voter registration campaign.
- 1C. Students describe how citizenship is defined by the Constitution and important laws.
- 1D. Students explore how citizens influence public policy in a representative democracy.

Social Studies

(Commencement)

Standard 5- Civics, Citizenship, and Government - con't

Civics, Citizenship and Government iv

- 1A. Students participate as informed citizens in the political justice system and processes of the United States, including voting.
- 1B. Students evaluate, take, and defend positions on what the fundamental values and principles of American political life are and their importance to the maintenance of constitutional democracy.
- 1C. Students take, defend, and evaluate positions about attitudes that facilitate thoughtful and effective participation in public affairs.
- 1D. Students consider the need to respect the rights of others, to respect others' points of view.
- 1E. Students participate in school/classroom/community activities that focus on an issue or problem.
- 1F. Students prepare a plan of action that defines an issue or problem, suggest alternative solutions or course of action, evaluates the consequences for each alternative solution or course of action, prioritizes the solutions based on established criteria, and proposes an action plan to address the issue or to resolve the problem.
- 1G. Students explain how democratic principles have been used in resolving an issue or problem.

The Arts

(Commencement)

Standard 1- Creating, Performing, and Participating in the Arts

Dance

- 1A. Students perform movements and dances that require demonstration of complex steps and patterns as well as an understanding of contextual meanings.
- 1B. Students create dance studies and full choreographies based on identified and selected dance movement vocabulary.
- 1C. Students apply a variety of choreographic processes and structures as appropriate to plan a duet or ensemble performance.

Music

- 2A. Students compose simple pieces for at least two mediums, including computers (MIDI) and other electronic instruments. (Pieces may combine music with other art forms such as dance, theatre, visual arts, or film/video.)
- 2B. Students sing and/or play recreational instruments accurately, expressively, and with good tone quality, pitch, duration, loudness, technique and (singing) diction.
- 2C. Students use common symbols (notation) to perform music on recreational instruments.
- 2D. Students identify and describe the roles, processes, and actions needed to produce professional concerts and musical theatre productions.
- 2E. Students explain the commercial-music roles of producer, recordist, public relations director, recording company executive, contractor, musicians, union officials, performers, etc.

Theatre

- 3A. Students write monologues and scenes to communicate ideas and feelings.
- 3B. Students enact experiences through pantomime, improvisation, play writing, and script analysis.
- 3C. Students use language, techniques of sound production (articulation enunciation, diction, and phrasing), techniques of body, movement, posture, stance, gesture, and facial expression and analysis of script to personify character(s); interact with others in improvisation, rehearsal, and performance; and communicate ideas and feelings.
- 3D. Students design and build props, sets, and costumes to communicate the intent of the production.
- 3E. Students make acting, directing, and design choices that support and enhance the intent of the class, school, and/or community productions.

The Arts

(Commencement)

Standard 1- Creating, Performing, and Participating in the Arts – con't

Visual Arts

- 4A. Students create a collection of art work, in a variety of mediums, based on instructional assignments and individual and collective experiences to explore perceptions, ideas, and viewpoints.
- 4B. Students create art works in which they use and evaluate different kinds of mediums, subjects, themes, symbols, metaphors, and images.
- 4C. Students demonstrate an increasing level of competence in using the elements and principles of art to create art works for public exhibition.
- 4D. Students reflect on their developing work to determine the effectiveness of selected mediums and techniques for conveying meaning and adjust their decisions accordingly.

The Arts

(Commencement)

Standard 2- Knowing and Using Arts Materials and Resources

Dance

- 1A. Students use dance technologies without significant supervision.
- 1B. Students are familiar with techniques of research about dance.
- 1C. Students know about regional performance venues which present dance and how to purchase tickets and access information about events.
- 1D. Students know about educational requirements of dance-related careers.
- 1E. Students identify major muscles and bones and how they function in dance movement.

Music

- 2A. Students use traditional, electronic, and nontraditional media for composing, arranging, and performing music.
- 2B. Students describe and compare the various services provided by community organizations that promote music performance and listening.
- 2C. Students use print and electronic media, including recordings, in school and community libraries to gather and report information on music and musicians.
- 2D. Students identify and discuss the contributions of local experts in various aspects of music performance, production, and scholarship.
- 2E. Students participate as a discriminating member of an audience when listening to performances from a variety of genres, forms, and styles.
- 2F. Students understand a broad range of career opportunities in the field of music, including those involved with funding, producing, and marketing musical events.

Theatre

- 3A. Students use theatre technology skills and facilities in creating a theatrical experience.
- 3B. Students use school and community resources, including library/media centers, museums and theatre professionals, as part of the artistic process leading to production.
- 3C. Students visit local theatrical institutions and attend theatrical performances in their school and community as an individual and part of a group.
- 3D. Students understand a broad range of vocations/avocations in performing, producing, and promoting theatre.

The Arts

(Commencement)

Standard 2- Knowing and Using Arts Materials and Resources - con't

- 4A. Students select and use mediums and processes that communicate intended meaning in their art works, and exhibit competence in at least two mediums.
- 4B. Students use the computer and electronic media to express their visual ideas and demonstrate a variety of approaches to artistic creation.
- 4C. Students interact with professional artists and participate in school and community-sponsored programs by art organizations and cultural institutions.
- 4D. Students understand a broad range of vocations/avocations in the field of visual arts, including those involved with creating, performing, exhibiting and promoting art.

The Arts

(Commencement)

Standard 3- Responding to and Analyzing Works of Art

Dance

- 1A. Students make comparisons of the nature and principles of dance to other arts.
- 1B. Students analyze and describe similarities and differences in different dance forms and styles.
- 1C. Students describe and compare a variety of choreographic approaches used in the creation of dances.

Music

- 2A. Students, through listening, analyze and evaluate their own and others' performances, improvisations, and compositions and suggest improvements.
- 2B. Students read and write critiques of music that display a broad knowledge of musical elements, genres, and styles.
- 2C. Students use anatomical and other scientific terms to explain the musical effectiveness of various sound sources traditional, nontraditional, and electronic.
- 2D. Students use appropriate technical and socio-cultural terms to describe musical performances and compositions.
- 2E. Students identify and describe the contributions of both locally and internationally known exemplars of high quality in the major musical genres.
- 2F. Students explain how performers, composers, and arrangers make artistic decisions.

Theatre

- 3A. Students articulate an understanding, interpretation, and evaluation of a theatre piece as drama and as a realized production, using appropriate critical vocabulary.
- 3B. Students evaluate the use of other art forms in a theatre production.
- 3C. Students explain how a theatrical production exemplifies major themes and ideas from other disciplines.

- 4A. Students use the language of art criticism by reading and discussing critical reviews in newspapers and journals and by writing their own critical responses to works of art (either their or those of others).
- 4B. Students explain the visual and other sensory qualities in art and nature and their relationship to the social environment.
- 4C. Students analyze and interpret the ways in which political, cultural, social, religious, and psychological concepts and themes have been explored in visual art.
- 4D. Students develop connections between the ways ideas, themes, and concepts are expressed through the visual arts and other disciplines in everyday life.

The Arts

(Commencement)

Standard 4- Understanding the Cultural Dimensions and Contributions of the Arts

Dance

- 1A. Students explain the interaction of performer and audience in dance as a shared cultural event.
- 1B. Students identify the cultural elements in a variety of dances drawn from the folk and classical repertories.
- 1C. Students recognize specific contributions of dance and dancers to their own lives and to people in other times and places.

Music

- 2A. Students identify from performances or recordings the cultural contexts of a further varied repertoire of folk, art, and contemporary selections from the basic cultures that represent the peoples of the world.
- 2B. Students identify from performances or recordings the titles and composers and discuss the cultural contexts of well-known examples of classical concert music and blues/jazz selections.
- 2C. Students relate well-known musical examples from the 17th century onward with the dominant social and historical events.

Theatre

- 3A. Students read and view a variety of plays from different cultures.
- 3B. Students using the basic elements of theatre (e.g., speech, gesture, costume, etc.), explain how different theatrical productions represent the cultures from which they come.
- 3C. Students articulate the social beliefs, issues and events of specific theatrical productions.

- 4A. Students analyze works of art from diverse world cultures and discuss the ideas, issues, and events of the culture that these works convey.
- 4B. Students examine works of art and artifacts from United States cultures and place them within a cultural and historical context.
- 4C. Students create art works that reflect a variety of cultural influences.

Languages Other Than English

(Checkpoint C)

Standard 1- Communication Skills

Modern Languages i

- 1A. Students can understand standard speech delivered in most authentic settings.
- 1B. Students can understand the main ideas and significant relevant details of extended discussions or presentations, and of recorded songs, feature programs on radio and television, movies, and other media designed for use by native speakers.
- 1C. Students can draw on a wide range of language forms, vocabulary, idioms, and structures learned in class as well as those acquired through independent exposure to the language.
- 1D. Students can comprehend subtler, nuanced details of meaning with some repetition and rephrasing.
- 1E. Students can engage in extended discussions with native or fluent speakers on a broad range of topics that extend beyond their daily lives and are of general interest to the target cultures.

Modern Languages ii

- 1A. Students can comprehend the content of most texts of interest to native speakers.
- 1B. Students can draw on a broad range of learned vocabulary, idioms, and structures, including the full range of time frames, as well as language acquired through independent reading.
- 1C. Students can write multi-paragraphed essays, journals, personal and business letters, and creative texts in which their thoughts are unified and presented in an organized fashion; errors in form may occur, particularly when the students are writing about complex themes or issues requiring the expression of opinions, or when the topic is outside their realm of experiences.
- 1D. Students can use culturally appropriate learned vocabulary and structures associated with a broad range of topics, and structures such as simple and complex sentences to communicate through the full range of time frames.

Latin *i*

- 2A. Students can read and understand selected authors of prose and poetry with some assistance.
- 2B. Students can express in English the general and specific meaning of Latin passages of prose or poetry, assisted by glosses, and can demonstrate a controlled, but increasingly, ability to write Latin.
- 2C. Students can read aloud Latin prose and poetry with attention to features such as the correct metrical structure.
- 2D. Students can demonstrate an expanding knowledge of Latin vocabulary and language structures, and an increased English vocabulary based on it.

Languages Other Than English

(Checkpoint C)

Standard 1- Communication Skills - con't

Latin ii

- 2A. Students can recognize and appreciate the linguistic and artistic qualities of oral Latin prose and poetry when read aloud.
- 2B. Students can read aloud Latin prose and poetry with attention to features such as the correct metrical structure.

American Sign Language i

- 3A. Students can understand a wide range of registers delivered with some repetition and paraphrasing by fluent ASL signers, comprehension may be hindered when the topics are unfamiliar or when more advanced signed communication is being used.
- 3B. Students can organize presentations on everyday topics.
- 3C. Students can express complex ideas with confidence.

American Sign Language ii

- 3A. Students can converse with confidence.
- 3B. Students can engage in extended discourse with native ASL signers on a broad range of topics including those of general interest to the Deaf culture.

Languages Other Than English

(Checkpoint C)

Standard 2- Cultural Understanding

Modern Languages

- 1A. Students can demonstrate sophisticated knowledge of cultural nuances in a target language culture.
- 1B. Students can model how spoken language, body language, and social interaction influence communication.
- 1C. Students can use appropriate registers.
- 1D. Students can write in the target language in a manner that articulates similarities and differences in cultural behaviors.

Latin

- 2A. Students can use adapted reading from Latin prose and poetry to broaden knowledge about Greco-Roman civilization and its influence on subsequent civilizations.
- 2B. Students can make comparisons of Latin literary style with those of world literary traditions.

American Sign Language

- 3A. Students can produce behaviors that are consistent with the Deaf culture.
- 3B. Students can reflect a wide variety of different contexts within the Deaf culture.

Native American Languages i

- 4A. Students can understand speech delivered with some repetitions and rewording by competent Native speakers.
- 4B. Students can understand the essential points of discussion or presentations on familiar topics in lengthy messages and presentations.
- 4C. Students can handle most communicative situations with confidence but may need help with complicated, unfamiliar topics.

Native American Languages ii

- 4A. Students can demonstrate a thorough knowledge of the Native culture.
- 4B. Students can distinguish between various subgroups.
- 4C. Students can relate their knowledge and understanding of the culture to other Native American groups.

Health, Physical Education, Family and Consumer Sciences

(Commencement)

Standard 1- Personal Health and Fitness

Health Education

- 1A. Students understand human growth and development throughout the life cycle.
- 1B. Students demonstrate the necessary knowledge and skills to promote healthy development into adulthood.
- 1C. Students apply prevention and risk reduction strategies which can delay the onset or reduce the risk of potential health problems into adulthood.
- 1D. Students evaluate how the multiple influences which affect health decisions and behaviors can be altered.

Physical Education

- 2A. Students demonstrate proficiency in selected complex physical activities (games, sports, exercises) that provide conditioning for each fitness area.
- 2B. Students establish and maintain a high level of skilled performance, demonstrate mastery of fundamental movement forms and skills that can contribute to daily living tasks, and analyze skill activities.
- 2C. Students make physical activity an important part of their life and recognize such consequent benefits as self-renewal, greater productivity as a worker, more energy for family activities, and reduction in health care costs.
- 2D. Students use the basic principles of skill analysis to improve previously acquired skills and to continue to learn new skills and activities.
- 2E. Students know the components of personal wellness (nutrition and weight control, disease prevention, stress management, safety, and physical fitness), establish a personal profile with fitness/wellness goals, and engage in appropriate activities to improve or sustain their fitness.
- 2F. Students follow a program that relates to wellness, including weight control and stress management.
- 2G. Students demonstrate competence in leading and participating in group activities.

Family and Consumer Sciences

- 3A. Students apply knowledge of food choices and menus to plan a balanced diet, use new technologies to plan and prepare nutritious meals for a variety of dietary needs.
- 3B. Students adjust their own diet to accommodate changing levels of activity or to meet their nutritional needs throughout the life cycle.
- 3C. Students identify ways to meet basic needs of all family members.
- 3D. Students take reasoned action toward reaching personal health goals.

Health, Physical Education, Family and Consumer Sciences

(Commencement)

Standard 2- A Safe and Healthy Environment

Health Education

- 1A. Students recognize hazardous conditions in the home, school, work place, and community and propose solutions to eliminate or reduce them.
- 1B. Students evaluate personal and social skills which contribute to health and safety of self and others.
- 1C. Students recognize how individual behavior affects the quality of the environment.

Physical Education

- 2A. Students know the potential safety hazards associated with a wide variety of games and activities and are able to prevent and respond to accidents.
- 2B. Students demonstrate responsible personal and social behavior while engaged in physical activities.
- 2C. Students accept physical activity as an important part of life. Self-renewal, productivity as a worker, energy for family activities, fitness, weight control, stress management, and reduction in health-care costs are understood as benefits of physical activity.
- 2D. Students create a positive climate for group activities by assuming a variety of roles.
- 2E. Students understand the physical, social, and emotional benefits of physical activity and can demonstrate leadership and problem solving through participation in organized games or activities.

Family and Consumer Sciences

- 3A. Students understand the stages of child development and apply this knowledge to activities designed to enrich the physical, social, mental, and emotional development of a young child.
- 3B. Students apply housing principles (e.g. design and safety) to meet the needs of family members of all ages and abilities.
- 3C. Students understand essential requirements for selecting and maintaining a home.
- 3D. Students apply basic rules of health and safety to a variety of home and work place situations.

Health, Physical Education, Family and Consumer Sciences

(Commencement)

Standard 3- Resource Management

Health Education

- 1A. Students demonstrate how to evaluate health information, products and services for validity and reliability.
- 1B. Students analyze how cultural beliefs influence health behaviors and the use of health products and services.
- 1C. Students demonstrate the ability to access community health services for self and others.
- 1D. Students use technology and the media to promote positive health messages.
- 1E. Students demonstrate advocacy skills in promoting individual, family and community health.

Physical Education

- 2A. Students recognize their role as concerned and discriminating consumers of physical activities programs and understand the importance of physical activity as a resource for everyone regardless of age or ability.
- 2B. Students recognize the benefits of engaging in appropriate physical activities with others, including both older and younger members of the community.
- 2C. Students identify a variety of career opportunities associated with sports and fitness and understand the qualifications, educational requirements, and job responsibilities of those careers.

Family and Consumer Sciences

- 3A. Students analyze a wide range of factors related to managing personal resources to balance obligations to work, family, and self.
- 3B. Students understand the basics of an individual/family budget and plan to obtain, use, and protect money and assets.
- 3C. Students analyze abilities and interests in relation to careers, set longterm career goals, and develop a plan for progressing toward their goals.
- 3D. Students understand the concept of entrepreneurship as it exists in today's economy.
- 3E. Students develop job skills (e.g. communication, effective time management, problem solving, and leadership.)

Career Development and Occupational Studies

(Commencement)

Standard 1- Career Development

No Component Available

- 1A. Students complete the development of a career plan that would permit eventual entry into a career option of their choosing.
- 1B. Students apply decision-making skills in the selection of a career option of strong personal interest.
- 1C. Students analyze skills and abilities required in a career option and relate them to their own skills and abilities.

Career Development and Occupational Studies

(Commencement)

Standard 2- Integrated Learning

No Component Available

- 1A. Students will demonstrate the integration and application of academic and occupational skills in their school learning, work, and personal lives.
- 1B. Students use academic knowledge and skills in an occupational context, and demonstrate the application of these skills by using a variety of communication techniques (e.g. sign language, pictures, videos, reports, and technology.)
- 1C. Students research, interpret, analyze, and evaluate information and experiences as related to academic knowledge and technical skills when completing a career plan.

Career Development and Occupational Studies

(Commencement)

Standard 3- Universal Foundation Skills

Basic Skills

1A. Students use a combination of techniques to read or listen to complex information and analyze what they hear or read; convey information confidently and coherently in written or oral form; and analyze and solve mathematical problems requiring use of multiple computational skills.

Thinking Skills

2A. Students demonstrate the ability to organize and process information and apply skills in new ways.

Personal Qualities

3A. Students demonstrate leadership skills in setting goals, monitoring progress, and improving their performance.

Interpersonal Skills

4A. Students communicate effectively and help others to learn a new skill.

Technology

5A. Students apply their knowledge of technology to identify and solve problems.

Managing Information

6A. Students use technology to acquire, organize and communicate information by entering, modifying, retrieving, and storing data.

Managing Resources

7A. Students allocate resources to complete a task.

Systems

8A. Students demonstrate an understanding of how systems performance relates to the goals, resources, and functions of an organization.

Career Development and Occupational Studies (Experiential)

Standard 4- Career Majors

Business/Information Systems i

1A. Students demonstrate an understanding of business, marketing, and multinational economic concepts, perform business-related mathematical computations, and analyze/interpret business-related numerical information.

Business/Information Systems ii

1A. Students select, apply, and troubleshoot hardware and software used in the processing of business transactions.

Business/Information Systems iii

1A. Students prepare, maintain, interpret/analyze, and transmit/distribute information in a variety of formats while demonstrating the oral, nonverbal, and written communication skills essential for working in today's international service-/information-/technological-based economy.

Business/Information Systems iv

1A. Students demonstrate an understanding of the interrelatedness of business, social, and economic systems/subsystems.

Business/Information Systems *v*

1A. Students identify, organize, plan, and allocate resources (e.g. financial, materials/facilities, human, time) in demonstrating the ability to manage their lives as learners, contributing family members, globally competitive workers, and self-sufficient.

Business/Information Systems vi

1A. Students exhibit interpersonal skills essential for success in the multinational business world, demonstrate basic leadership abilities/skills, and function effectively as members of a work group or team.

Health Services i

2A. Students apply knowledge/skills acquired in academic subjects to the health care environment.

Health Services ii

2A. Students understand the current health care system and its impact on health careers.

Health Services iii

2A. Students develop knowledge of the concept of optimal health and identify factors that affect health maintenance.

Career Development and Occupational Studies (Experiential)

Standard 4- Career Majors – con't

Health Services iv

2A. Students know the importance of performing their role in the health care system in accordance with laws, regulations, policies, ethics, and the rights of clients.

Health Services v

2A. Students identify safety hazards in a health care setting and prevent illness or injury through safe work practices.

Health Services vi

2A. Students communicate information in a variety of formats and media.

Health Services vii

2A. Students interact effectively and sensitively with all other members of the health care team in order to provide high-quality client care.

Health Services viii

2A. Students identify procedures within their scope of practice and job description and perform them accurately and in a timely fashion.

Engineering/Technologies i

3A. Students develop practical understanding of engineering technology through reading, writing, sample problem solving, and employment experiences.

Engineering/Technologies ii

3A. Students demonstrate how all types of engineering/technical organizations, equipment (hardware/software), and well-trained human resources assist and expedite the production/distribution of goods and services.

Engineering/Technologies iii

3A. Students demonstrate knowledge of planning, product development and utilization, and evaluation that meets the needs of industry.

Human and Public Services i

4A. Students demonstrate professional, ethical, and legal responsibilities toward customers.

Human and Public Services ii

4A. Students demonstrate effective communication skills needed to meet the expectations of human and public services consumers.

Career Development and Occupational Studies

(Experiential)

Standard 4- Career Majors – con't

Human and Public Services iii

4A. Students demonstrate knowledge of the principles of sanitation used to prevent the transmission of disease-producing microorganisms from one person/object to another.

Human and Public Services iv

4A. Students understand the process of human growth and development and its influence on client needs.

Human and Public Services v

4A. Students demonstrate how to interact effectively and sensitively with others.

Human and Public Services vi

4A. Students provide safe environments for others.

Human and Public Services vii

4A. Students solve problems, set goals, and make decisions in order to provide services to best meet the needs of others.

Human and Public Services viii

4A. Students apply personal and resource management skills.

Human and Public Services ix

4A. Students exhibit and promote a positive image of wellness.

Natural and Agricultural Sciences i

5A. Students demonstrate a solid base of knowledge and skills in natural and agricultural sciences.

Natural and Agricultural Sciences ii

5A. Students demonstrate the ability to use technology to assist in production and distribution of food goods and services of today's agricultural industries.

Natural and Agricultural Sciences iii

5A. Students prepare, maintain, interpret, and disseminate quantitative and qualitative pieces of information relating to the natural and agricultural sciences.

Natural and Agricultural Sciences iv

5A. Students demonstrate an understanding of the interrelationship between agricultural businesses and organizations designed to produce products, services, and information.

Career Development and Occupational Studies (Experiential)

Standard 4- Career Majors - con't

Natural and Agricultural Sciences iv

5A. Students demonstrate an understanding of the interrelationship between agricultural businesses and organizations designed to produce products, services, and information.

Natural and Agricultural Sciences v

5A. Students demonstrate the ability to manage personal time, business, and financial resources.

Natural and Agricultural Sciences vi

5A. Students demonstrate the interpersonal skills and abilities needed to function within a sophisticated and sometimes complicated agricultural environment.

Natural and Agricultural Sciences vii

5A. Students demonstrate awareness of the importance of safety and accident prevention in all agricultural situations.

English Language Arts

(Alternate)

Standard 1- Language for Information and Understanding

Listening and Reading

- 1A. Students attend to the speaker, visually and/or auditorily, or task.
- 1B. Students use information from books, magazines, newspapers, textbooks, audio and media presentations, and from such forms as basic charts, graphs, maps, and diagrams.
- 1C. Students organize and categorize information/materials.
- 1D. Students use functional reading sight vocabulary.
- 1E. Students follow directions that involve one or two steps.

Communicating and Writing

- 2A. Students use nonverbal communication skills to convey information, needs, and wants.
- 2B. Students use verbal communication, including alternative communication systems, to convey information, needs and wants.
- 2C. Students use written form to convey information, needs and wants.

English Language Arts

(Alternate)

Standard 2- Language for Literary Response and Expression

Listening and Reading

- 1A. Students listen to a variety of literature: poems; articles and stories from magazines; fables. Myths and legends; songs, plays and media productions; and works of fiction and nonfiction.
- 1B. Students participate in reading response activities.

Speaking and Writing

- 2A. Students present personal responses to literature that make reference to the plot, characters, ideas and vocabulary.
- 2B. Students communicate the meaning of literary works on the literal level.
- 2C. Students create their own stories, poems, and songs using the elements of the literature read to them and appropriate vocabulary.

English Language Arts

(Alternate)

Standard 3- Language for Critical Analysis and Evaluation

Listening and Reading

- 1A. Students form basic opinions about a variety of books, newspapers, magazines, presentations and multimedia.
- 1B. Students apply a lesson learned from a book, newspapers, magazines, presenter or media presentation to a real-life situation.

Speaking and Writing

- 2A. Students express opinions about events, books, issues, and experiences.
- 2B. Students present arguments for certain views or actions.

English Language Arts

(Alternate)

Standard 4- Language for Social Interaction

Reading and Writing

1A. Students exchange friendly pictures, notes, cards, and letters with friends, relatives, and pen pals to keep in touch and to commemorate special occasions.

Listening and Speaking

- 2A. Students listen attentively and recognize when it is appropriate for them to speak/respond.
- 2B. Students take turns speaking and responding to others' ideas in conversations on familiar topics.
- 2C. Students recognize the kind of interaction appropriate for different circumstances, such as story hour, group discussions and one-on-one conversation skills.
- 2D. Students use appropriate conversation skills.

Math, Science, and Technology (Alternate)

Standard 1- Analysis, Inquiry and Design

Mathematical Analysis

- 1A. Students use mathematics and symbolism to communicate in mathematics.
- 1B. Students compare and describe quantities.
- 1C. Students demonstrate knowledge of mathematical relationships.
- 1D. Students relate mathematics to their immediate environment.

Scientific Inquiry

2A. Students learn to ask "why" questions to seek greater understanding concerning objects and events they have observed and heard about.

Math, Science, and Technology (Alternate)

Standard 2- Information Systems

Information Systems

- 1A. Students use a variety of equipment and software packages to enter, process, display communicate information in different forms using text, pictures, and sound.
- 1B. Students access needed information from media, electronic data bases and community resources.
- 1C. Students use familiar communication systems to satisfy personal needs.

Math, Science, and Technology (Alternate)

Standard 3- Mathematics

Number and Numeration

- 1A. Students use single digit whole numbers to identify locations, quantify groups of objects, and measure distances.
- 1B. Students use concrete materials to model numbers and number relationships for whole numbers and simple fractions.
- 1C. Students relate counting to grouping using manipulative.
- 1D. Students recognize the order of whole numbers up to 12 and commonly used simple fractions.
- 1E. Students recognize coins and dollars and their value.

Operations

2A. Students add and subtract whole numbers under 12 using manipulative or a calculator.

Measurement

- 3A. Students use appropriate standard and non-standard measurement tools in measurement activities.
- 3B. Students understand the simple attributes of length, weight, volume, time, and temperature.
- 3C. Students measure the length or volume of an object.
- 3D. Students collect and display simple data.

Patterns/Functions

- 4A. Students recognize and duplicate simple patterns.
- 4B. Students use a variety of manipulative materials and technologies to explore patterns.
- 4C. Students recognize simple patterns in nature, art, music, and literature.

Math, Science, and Technology (Alternate)

Standard 4- Science

Physical Setting - Key Idea 1

(Earth/Celestial - Relative Motion and Perspective)

1A. Students recognize patterns of daily, monthly and seasonal changes in their environment.

Physical Setting - Key Idea 2

(Air, water, land - Interactions)

2A. Students observe the relationships among air, water, and land on Earth.

Physical Setting - Key Idea 3

(Matter - Properties)

- 3A. Students observe and describe properties of materials using appropriate tools.
- 3B. Students observe chemical and physical changes; including changes in states of manner.

Physical Setting - Key Idea 4

(Energy - Forms)

4A. Students observe a variety of forms of energy (e.g., heat, chemical, light) and the changes that occur in objects when they interact with those forms of energy.

Physical Setting - Key Idea 5

(Energy/Matter - Forces)

5A. Students investigate the use of common forces (pushes and pulls) on objects, such as those caused by gravity, magnetism, and mechanical forces.

The Living Environment - Key Idea 1

(Living/Non-Living - Characteristics)

- 6A. Students explore the characteristics of any differences between living and nonliving things.
- 6B. Students identify simple life processes common to all living things.

The Living Environment - Key Idea 3

(Organisms - Change over time)

- 7A. Students explore how living things changes over their lifetime.
- 7B. Students observe the differences within a species may give individuals an advantage in surviving.

Math, Science, and Technology (Alternate)

Standard 4- Science - con't

The Living Environment - Key Idea 4 (Life Cycles)

- 8A. Students observe the major stages in the life cycles of selected plants and animals.
- 8B. Students observe evidence of growth, repair, and maintenance, such as nails, hair and bone, and the healing of cuts and bruises.

The Living Environment - Key Idea 5

(Organisms - Dynamic Equilibrium)

- 9A. Students identify a few basic life functions of common living specimens (guppy, mealworm, gerbil).
- 9B. Students identify some survival behaviors of common living specimens.
- 9C. Students participate in activities that help promote good health and growth in humans.

The Living Environment - Key Idea 6 (Interdependence)

- 10A. Students participate in activities that demonstrate how plants and animals, including humans, depend upon each other and the nonliving environment.
- 10B. Students participate in activities that demonstrate the relationship of the sun as an energy sources for living and nonliving cycles.

The Living Environment - Key Idea 7 (Human Impact on Environment)

11A. Students participate in activities that show how humans have changed their environment and the effects of those changes.

Math, Science, and Technology (Alternate)

Standard 5 - Technology

Engineering Design

- 1A. Students recognize that an object or choice is not working properly.
- 1B. Students communicate how a defective simple object or device might be fixed.
- 1C. Students under supervision, manipulate components of a simple, malfunctioning device to improve its performance.
- 1D. Students tell how the device or object has been improved.
- 1E. Students design a structure or environment (e.g. a neighborhood) using modeling materials such as (LEGO Duplo blocks, model vehicles, model structures, etc).
- 1F. Students describe the design in words or drawings.

Tools, Resources, and Technological Processes

- 2A. Students use a variety of materials and energy sources to construct things.
- 2B. Students assemble components using a fastening process.
- 2C. Students process materials into more useful forms.
- 2D. Students understand the importance of safety and ease of use in selecting tools and resources for a specific purpose.
- 2E. Students develop basic skills in the use of hand tools.
- 2F. Students use simple manufacturing processes (e.g., assembly, multiple stages of production, quality control) to produce a product.

Computer Technology

3A. Students use the computer as a tool.

Technological Systems

- 4A. Students identify and operate familiar systems.
- 4B. Students assemble simple systems.

Impacts of Technology

- 5A. Students demonstrate that certain technologies have safety issues.
- 5B. Students participate in the disposal of materials in a responsible way.

Management of Technology

- 6A. Students work cooperatively with others on a joint task.
- 6B. Students participate in planning and event or activity.

Math, Science, and Technology (Alternate)

Standard 6 - Interconnectedness: Common Themes

Models

- 1A. Students construct and operate models in order to discover attributes of the real thing.
- 1B. Students discover that a model of something is different than the real thing, but can be used to study the real thing.
- 1C. Students use different types of models, such as graphs, sketches, diagrams, dioramas and maps, to represent various aspects of the real world.

Magnitude and Scale

- 2A. Students provide examples of natural and manufactured things that belong to the same category, yet have very different sizes, weights, ages, speeds and other measurements.
- 2B. Students identify the biggest and the smallest values of a system when information about its characteristics and behavior.

Equilibrium and Stability

- 3A. Students observe a balance and notice what happens when objects are placed on the balance.
- 3B. Students record body temperature, etc.

Social Studies

(Alternate)

Standard 1- History of the United States and New York

History of the United States and New York

- 1A. Students participate in activities that highlight historical events.
- 1B. Students learn and communicate about the roots of American culture, its development from many different traditions, and the ways many people from a variety of groups and backgrounds played a role in creating it.
- 1C. Students communicate about the basic ideals of American democracy.
- 1D. Students demonstrate the traditions in their family, neighborhood, community and United States.
- 1E. Students distinguish between near and distant past and interpret simple timelines.
- 1F. Students communicate about the important accomplishments of individuals and groups living in their neighborhoods and communities.
- 1G. Students identify individuals who have helped to strengthen democracy in the United States.
- 1H. Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.
- 1I. Students learn and communicate about their rights as citizens with disabilities and how to protect and secure these rights.

Social Studies

(Alternate)

Standard 2- World History

World History

- 1A. Students study and communicate about different world cultures and civilizations focusing on their accomplishments, contributions, values, beliefs, and traditions.
- 1B. Students demonstrate an understanding of past, present, and future time periods.
- 1C. Students demonstrate knowledge of calendar time in terms of days, months, and years.
- 1D. Students explore the lifestyles, beliefs, traditions, rules, laws, and social/cultural needs and wants of people during different periods in history and in different parts of the world.
- 1E. Students view historic events through the eyes of those who were there, as shown in their art, writings, music, and artifacts.
- 1F. Students utilize media to become aware of current events.

Social Studies

(Alternate)

Standard 3 - Geography

Geography

- 1A. Students communicate how people live, work, and utilize natural resources.
- 1B. Students draw or build maps and diagrams representing their home, school and community.
- 1C. Students locate places within local community, New York State and United States.
- 1D. Students gather and organize geographic information from a variety of sources and display it in a number of ways.
- 1E. Students identify and compare physical characteristics of different regions and people.
- 1F. Students demonstrate their location within their community, State and world.

Social Studies (Alternate)

Standard 4 - Economics

Economics

- 1A. Students learn and communicate about jobs in their community.
- 1B. Students understand that money is necessary to buy goods and services.
- 1C. Students communicate about how goods and services are produced.1D. Students develop and demonstrate money management skills.

Social Studies

(Alternate)

Standard 5 - Civics, Citizenship, and Government

Civics, Citizenship, and Government

- 1A. Students explore the basic purposes of government and the importance of civic life.
- 1B. Students demonstrate knowledge of the holidays, celebrations, and symbols of our nation.
- 1C. Students demonstrate what it means to be a good citizen in the classroom, school, home and community.
- 1D. Students identify and describe the rules and responsibilities students have at home, in the classroom, and at school.
- 1E. Students learn that effective, informed citizenship is a duty of each citizen, and demonstrate it through voting and community service.
- 1F. Students identify basic rights that students have and those that they will acquire as they age.
- 1G. Students show a willingness to consider other points of view before drawing conclusions or making judgments.
- 1H. Students participate in activities that focus on a classroom, school, or community issue or problem.

The Arts

(Alternate)

Standard 1- Creating, Performing, and Participating in the Arts

Music

- 1A. Students explore what musical elements are.
- 1B. Students create short musical pieces consisting of sounds from a variety of traditional (e.g., tambourine, recorder, piano, voice), electronic (e.g., keyboard) and nontraditional sound sources (e.g., water-filled glasses).
- 1C. Students sing songs and play instruments maintaining pitch, rhythm, tone and tempo.
- 1D. Students sing or play simple repeated rhythm patterns with familiar songs and rounds.

Theatre

- 2A. Students use creative drama to communicate ideas and feelings.
- 2B. Students imitate experiences through pantomime, play making, dramatic play, story dramatization, story telling and role-playing.
- 2C. Students use language, voice, gesture, movement and observation to express their experiences and communicate ideas and feelings.
- 2D. Students use basic props, simple set pieces and costume pieces to establish place, time, and character for the participants.
- 2E. Students use in individual and group experiences some of the roles, processes and actions for performing and creating theater pieces and improvisational drama.

- 3A. Students explore selected works of art in order to discover that these works were made by artists and to discover how they were made (the exploration may be both visual and tactile).
- 3B. Students demonstrate the basic skills in cutting, pasting, using clay and using a paint brush.
- 3C. Students create works of art based on their personal experiences (such as stories, pets, trips) and make art that tells something about that experience.
- 3D. Students explore selected symbols that are used in art, (such as the symbol for the sun or a tree) and discuss how the shape of the symbol may be different from one work to another but yet the symbol is still able to be identified or named.
- 3E. Students learn to name visual elements (such as shapes, textures and colors) through multi-sensory experiences.
- 3F. Students make works of art which incorporate selected visual elements.
- 3G. Students are guided to reflect upon what their art work looks like, how they used the medium (such as paint or crayon).
- 3H. Students work on a class work of art such as a mural or class book.

The Arts (Alternate)

Standard 1- Creating, Performing, and Participating in the Arts-con't

Movement

- 4A. Students identify and demonstrate movement elements and skills (such as bend, twist, slide, skip, hop, and walk in a straight line).
- 4B. Students participate in movement activities.
- 4C. Students create and perform simple dances based on their own movement ideas.
- 4D. Students interpret words to a dance.
- 4E. Students perform individually or in a group.

The Arts

(Alternate)

Standard 2- Knowing and Using Arts Materials and Resources

Music

- 1A. Students use classroom and nontraditional instruments in performing and creating music.
- 1B. Students construct instruments out of material not commonly used for musical instruments.
- 1C. Students use current technology to manipulate sound.
- 1D. Students learn about the various settings in which they hear music and the various resources that are used to produce music.
- 1E. Students demonstrate appropriate audience behavior, including attentive listening, in a variety of musical settings in and out of school.
- 1F. Students learn about ways that music is used by various members of the community.

Theatre

- 2A. Students visit theaters, theater-related facilities, and/or touring companies to observe aspects of theatrical production.
- 2B. Students visit the library/media corner of their school or community to learn about story dramatization material or other theater-related materials and to view videotapes of performances.
- 2C. Students visit a community library to learn about costumes and makeup and watch videotape performance of a Broadway play, such as Cats.
- 2D. Students attend theatrical performances in their school and demonstrate appropriate audience behavior.
- 2E. Students listen to the theater professional talk about how they prepare for and perform their jobs.

- 3A. Students draw images of people and things that become increasingly more specific.
- 3B. Students explore the characteristics of selected mediums and describe what they feel like when using them. Name those they like best.
- 3C. Students make simple three-dimensional works of art using additive and/or subtractive techniques.
- 3D. Students use a draw/paint software program to make simple graphic shapes.
- 3E. Students listen to and discuss the presentation of a museum person or an artist who brings original art works or artifacts to the classroom.
- 3F. Students look at and explore (by handling, if possible) artifacts borrowed from a museum and talk about their visual characteristics and their purpose.
- 3G. Students listen to and ask questions of a person from a local community who make his/her living in the visual arts (a painter, a sculptor, a photographer).

The Arts (Alternate)

Standard 2- Knowing and Using Arts Materials and Resources - con't

Movement

- 4A. Students will use dance resources in video, photography, print and live performance.
- 4B. Students understand the concept of live performance and appropriate conduct.
- 4C. Students learn about dance-related careers (e.g., dancer, choreographer, composer, lighting designer, historian, teacher).

The Arts (Alternate)

Standard 3 - Responding to and Analyzing Works of Art

Music

- 1A. Students through listening, tell what they liked or disliked about specific musical works and performances.
- 1B. Students learn about the basic elements of music such as melody, rhythm, harmony, dynamics, timbre, form, style, etc.
- 1C. Students learn about the basic means by which the voice and instruments can alter pitch, loudness, duration and timbre.

Theatre

2A. Students discuss their understanding, interpretation, and evaluation of a theatrical performance.

Visual Arts

- 3A. Students learn about the features of selected works of art, such as the subject matter and the overall feeling of the work.
- 3B. Students identify a work of art as distinguished from other kinds of objects and discuss where works of art can be found such as in the home, in school or in a museum.
- 3C. Students learn about art elements (such as shape, texture, color) that are found in works of art and what they might express in a work of art.
- 3D. Students explore a theme that is part of the student's experience that is found in a work of art. Express that theme in another form such as movement or music or in composing a class story.

Movement

- 4A. Students explore words and symbols (kinetic, visual, tactile, aural and olfactory) that describe movement.
- 4B. Students express to others their understanding of specific dance performances.

The Arts (Alternate)

Standard 4 - Understanding the Cultural Dimensions and Contributions of the Arts

Music

- 1A. Students will listen and to perform a basic repertoire of folk songs/dances and composed songs from the basic cultures that will represent the peoples of the world.
- 1B. Students will listen to composers of well-known examples of classical concert music, folk and blues/jazz selections.

Theatre

- 2A. Students dramatize stories and folk tales from various cultures.
- 2B. Students engage in drama/theater activities including music, dance, and games which reflect other cultures and ethnic groups.

Visual Arts

- 3A. Students look at and discuss a variety of two-dimensional and three-dimensional art works from different times and different cultures and learn that art tells us something about those people.
- 3B. Students look at art and artifacts from different cultures of the United States and discuss what they look like.
- 3C. Students make a work of art based on an image or a design that they see in a work of art from another period or another culture.

Movement

- 4A. Students explore basic dance movements that are typical of the major world cultures.
- 4B. Students explore the settings and circumstances in which dance is found in their lives and those of others, both past and present.

Health, Physical Education, Family and Consumer Sciences

(Alternate)

Standard 1- Resource Management

Health Education

- 1A. Students demonstrate basic knowledge and skills, which support positive health choices and behaviors.
- 1B. Students make good food selections and participate in exercise and recreation as part of growth and development.
- 1C. Students develop personal care skills, which affect health choices and behaviors.
- 1D. Students demonstrate the use of interpersonal communication skills regarding health-related issues.
- 1E. Students practice making healthy choices.

Physical Education

- 2A. Students participate in physical activities that develop physical fitness skills.
- 2B. Students demonstrate fundamental motor, non-locomotor, and manipulative skills.
- 2C. Students understand the effects of activity on the body and the risks associated with inactivity.
- 2D. Students understand the relationship between physical activity and individual well being.

Health, Physical Education, Family and Consumer Sciences

(Alternate)

Standard 2- A Safe and Healthy Environment

Health Education

- 1A. Students behave according to the rules of the home, school, and community.
- 1B. Students understand basic safety rules.
- 1C. Students demonstrate the appropriate use of potentially dangerous objects.
- 1D. Students demonstrate personal and social skills which contribute to individual safety.
- 1E. Students communicate social/emotional needs or feelings to others.
- 1F. Students demonstrate caring and respect for themselves and others.

Physical Education

- 2A. Students contribute to a safe and healthy environment by observing safe conditions for games, recreation, and outdoor activities.
- 2B. Students learn and practice appropriate participation and spectator behaviors to produce a safe and positive environment.
- 2C. Students work constructively with others to accomplish a variety of tasks.
- 2D. Students demonstrate how injuries from physical activity can be prevented.
- 2E. Students demonstrate care, consideration, and respect of self and others during physical activity.

Health, Physical Education, Family and Consumer Sciences

(Alternate)

Standard 3- Resource Management

Health Education

- 1A. Students demonstrate the use of various health care/health promoting products appropriately.
- 1B. Students demonstrate how to access help when illness, injury or emergency situations occur.

Physical Education

- 2A. Students participate and know resources available at home and in the community that offer opportunities to participate in and enjoy a variety of physical activities.
- 2B. Students choose a preferred physical activity offered at home or in the community.

Career Development and Occupational Studies (Alternate)

Standard 1- Career Development

No Component Available

- 1A. Students participate in the development of a career plan that would assist in the transition from school to eventual entry into a career option by the completion of school.
- 1B. Students participate in activities that demonstrate an awareness of their interests, aptitudes and abilities.
- 1C. Students demonstrate the value of work.
- 1D. Students utilize appropriate technology in a vocational setting and workplace.
- 1E. Students explore various careers.
- 1F. Students explore their preferences for working with people, information and/or things.
- 1G. Students demonstrate an understanding of decision making to resulting action.

Career Development and Occupational Studies (Alternate)

Standard 2 - Integrated Learning

No Component Available

- 1A. Students develop academic knowledge and skills that are required in specific occupations or work-related situations.
- 1B. Students solve problems that call for applying academic knowledge and skills.
- 1C. Students demonstrate learned skills across environments (school, home, community and work).

Career Development and Occupational Studies (Alternate)

Standard 3 - Universal Foundation Skills

Basic Skills

1A. Students listen to the ideas of others, communicate and use basic mathematical concepts to solve problems.

Thinking Skills

2A. Students recognize that there is a problem and make decisions to solve the problem to accomplish a task.

Personal Qualities

3A. Students demonstrate the personal qualities that lead to responsible behavior.

Technology

4A. Students use appropriate types of technology for job tasks.

Managing Information

5A. Students demonstrate an awareness of the knowledge, skills, abilities and resources needed to complete a task.

Managing Resources

6A. Students utilize information to make decisions.

Systems

7A. Students demonstrate understanding of how a system operates and identify where to obtain information and resources within the system.

Interpersonal Qualities

- 8A. Students relate to people of different ages and from diverse backgrounds.
- 8B. Students demonstrate positive interpersonal qualities.
- 8C. Students display skills needed to resolve conflicts with other people.

Math, Science, and Technology

(Major Sequence)

Standard 3- Mathematics

Mathematical Reasoning

1A. Students investigate and compare the axiomatic structures of various geometries.

Number and Numeration

- 2A. Students understand the concept of infinity.
- 2B. Students recognize when to use and how to apply the field properties.

Operations

3A. Students use appropriate techniques, including graphing utilities, to perform basic operations on matrices.

Modeling/Multiple Representation

- 4A. Students model and solve problems that involve absolute value, vectors, and matrices.
- 4B. Students illustrate spatial relationships using perspective, projections, and maps.
- 4C. Students represent problem situations using discrete structures such as finite graphs, matrices, sequences, and recurrence relations.
- 4D. Students analyze spatial relationships using the Cartesian coordinate system in three dimensions.

Measurement

- 5A. Students apply the conceptual foundation of limits, infinite Students apply the conceptual foundation of limits, infinite sequences and series, the area under a curve, rate of change, inverse variation, and the slope of a tangent line to authentic problems in mathematics and other disciplines.
- 5B. Students determine optimization points on a graph.
- 5C. Students use derivatives to find maximum, minimum, and inflection points of a function.

Uncertainty

- 6A. Students interpret probabilities in real-world situations.
- 6B. Students use curve fitting to predict from data.
- 6C. Students apply the concept of random variables to generate and interpret probability distributions.
- 6D. Students obtain confidence intervals and test hypotheses using appropriate statistical methods.
- 6E. Students approximate the roots of polynomial equations.
- 6F. Students make predictions using unbiased random samples.

Math, Science, and Technology

(Major Sequence)

Standard 3- Mathematics - con't

Patterns/Functions

- 7A. Students understand and apply the relationship between the rectangular form and the polar form of a complex number.
- 7B. Students use the definition of a derivative to examine the properties of a function.
- 7C. Students describe patterns produced by processes of geometric change, formally connecting iteration, approximations, limits, and fractals.
- 7D. Students extend patterns and compute the nth term in numerical and geometric sequences.
- 7E. Students use the limiting process to analyze infinite sequences and series.
- 7F. Students use algebraic and geometric iterations to explore patterns and solve problems.
- 7G. Students solve optimization problems.
- 7H. Students use linear programming and difference equations in the solution of problems.

The Arts

(Major Sequence)

Standard 1- Creating, Performing, and Participating in the Arts

Dance

- 1A. In addition to the General Education performance indicators, students use a variety of sources to find dance ideas.
- 1B. In addition to the General Education performance indicators, students select dance structures for use in choreographic projects.
- 1C. In addition to the General Education performance indicators, students perform dances requiring use of more sophisticated performance elements such as dynamics, phrasing, musicality, expression.
- 1D. In addition to the General Education performance indicators, students use a variety of choreographic approaches with any number of dancers, props, and performance spaces.
- 1E. In addition to the General Education performance indicators, students demonstrate ability to work effectively as dancer, choreographer, director, costumer, lighting designer, manager.

Music

- 2A. In addition to the General Education performance indicators, students compose a collection of works for wind, string, percussion, vocal, keyboard, or electronic media that demonstrates an understanding and application of the musical elements and music-related technology.
- 2B. In addition to the General Education performance indicators, students monitor and adjust their performance and compositional techniques, identifying strengths and areas for improvements.
- 2C. In addition to the General Education performance indicators, students improvise and arrange extended musical compositions that exhibit cohesiveness and musical expression.
- 2D. In addition to the General Education performance indicators, students in choral and instrumental ensembles, read difficult/very difficult music (NYSSMA level V or VI); exhibit independent control over tone quality, intonation, rhythm, dynamics, balance, blend, expression, and articulation; and respond appropriately to the gestures of the conductor.
- 2E. In addition to the General Education performance indicators, students adopt at least two of the roles they identify as needed (composer, arranger, copyist, conductor, performer, announcer, instrument maker or provider, program annotator, recordist) to produce the performance of a musical composition in the classroom.
- 2F. In addition to the General Education performance indicators, students in performing groups, produce musical performances by peer-led small ensembles and section s of larger ensembles.

The Arts

(Major Sequence)

Standard 1- Creating, Performing, and Participating in the Arts – con't

Theatre

- 3A. In addition to the General Education performance indicators, students write plays to communicate their ideas and feelings.
- 3B. In addition to the General Education performance indicators, students collaborate in the development of original works which reflect life experiences.
- 3C. In addition to the General Education performance indicators, students use vocal, movement, and body techniques to create complex characters in monologues, oral interpretations, and scene study.
- 3D. In addition to the General Education performance indicators, students create props, scenery, and costumes for different styles of plays.
- 3E. In addition to the General Education performance indicators, students carry out acting, directing, and design choices, which support and enhance the intent of a production.

Visual Arts

- 4A. In addition to the General Education performance indicators, students produce comprehensive and well organized commencement portfolios of their work.
- 4B. In addition to the General Education performance indicators, students reveal through their work a broad investigation of a variety of individual ideas and at least one theme explored imaginatively and in depth.
- 4C. In addition to the General Education performance indicators, students give evidence that they have developed an emerging personal style.
- 4D. In addition to the General Education performance indicators, students use selected mediums and techniques and select the most appropriate mediums and techniques to communicate their ideas.

The Arts

(Major Sequence)

Standard 2 - Knowing and Using Arts Materials and Resources

Dance

- 1A. In addition to the General Education performance indicators, students use technologies to research, create, perform or communicate about dance.
- 1B. In addition to the General Education performance indicators, students understand the roles of dancers, audience, and creators in a variety of dance forms and contexts.
- 1C. In addition to the General Education performance indicators, students participate in, or observe, dance events outside of school.
- 1D. In addition to the General Education performance indicators, students know about educational requirements of dance-related careers and how to prepare for possible entrance into those fields.
- 1E. In addition to the General Education performance indicators, students know about good nutrition, injury prevention, and how to care for the body.

Music

- 2A. In addition to the General Education performance indicators, students develop a classified and annotated directory of nearby music-related establishments such as instrument and music retailers, instrument makers and repair persons, recording studios, union representatives, etc.
- 2B. In addition to the General Education performance indicators, students identify ways that they have contributed to the support of the musical groups of which they are members.
- 2C. In addition to the General Education performance indicators, students explain opportunities available to them for further musical growth and professional development in higher education and community institutions.

The Arts

(Major Sequence)

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Theatre

- 3A. In addition to the General Education performance indicators, students identify current technologies, published scripted material, and print and electronic resources available for theatrical productions.
- 3B. In addition to the General Education performance indicators, students identify college and/or community opportunities in theatre after graduation and the requirements for application or participation.
- 3C. In addition to the General Education performance indicators, students cooperate in an ensemble as performers, designers, technicians, and managers to create a theatrical production.
- 3D. In addition to the General Education performance indicators, students design an individualized study program (I.e., internship, mentorship, research project) in a chosen theatre, film, or video vocation/avocation and share the information with the class.

The Arts

(Major Sequence)

Standard 2- Knowing and Using Arts Materials and Resources -con't

Visual Arts

- 4A. In addition to the General Education performance indicators, students develop Commencement Portfolios that show proficiency in one or more mediums and skill in using and manipulating the computer and other electronic media.
- 4B. In addition to the General Education performance indicators, students prepare a portfolio that meets the admission requirements of selected institutions.
- 4C. In addition to the General Education performance indicators, students understand the preparation required for particular art professions and acquire some skills of those professions through internships with local galleries, museums, advertising agencies, architectural firms, and other institutions.

The Arts

(Major Sequence)

Standard 3- Responding to and Analyzing Works of Art

Dance

- 1A. In addition to the General Education performance indicators, students express to others theories about the nature of dance and the underlying assumptions that people have about dance.
- 1B. In addition to the General Education performance indicators, students describe and analyze similarities and differences between individual performances, and between forms and styles of dance, past and present.
- 1C. In addition to the General Education performance indicators, students describe and defend an explanation of why people dance, based on experience in dance, witnessing others, and studying contexts.

Music

- 2A. In addition to the General Education performance indicators, students assess, describe, and evaluate the development of their personal contributions to their own, their school's and their community's musical life by appropriately using musical and socio-cultural terms and concepts (contributions and skills of musicians, functions of music in society, etc.)
- 2B. In addition to the General Education performance indicators, students demonstrate a practical knowledge of sound production and architectural acoustics to predict the general effects of sound on a room's shapes, building construction practices, and common absorbers.

Theatre

- 3A. In addition to the General Education performance indicators, students develop a critical vocabulary through the reading and discussion of professional criticism.
- 3B. In addition to the General Education performance indicators, students explain the meaning and societal function of different types of productions.
- 3C. In addition to the General Education performance indicators, students design a plan for improving performances, using past and present critiques.
- 3D. In addition to the General Education performance indicators, students explore various other art forms and technologies, using them in theatre projects.
- 3E. In addition to the General Education performance indicators, students explain how theatre can enhance other subjects in the curriculum.
- 3F. In addition to the General Education performance indicators, students compare and contrast theater, film, and video.

The Arts

(Major Sequence)

Standard 3- Responding to and Analyzing Works of Art - con't

Visual Arts

- 4A. In addition to the General Education performance indicators, students using the language of art criticism, describe the visual and functional characteristics of works of arts and interpret the relationships of works of art one to another, to describe the impact of the work on the viewer.
- 4B. In addition to the General Education performance indicators, students demonstrate an understanding of art criticism, art histories, and aesthetic principles and show their connections to works of art.
- 4C. In addition to the General Education performance indicators, students give evidence in their Commencement Portfolios that they have researched a theme in-depth and that in their research they have explored the ways the theme has been expressed in other disciplinary forms.

The Arts

(Major Sequence)

Standard 4- Understanding the Cultural Dimensions and Contributions of the Arts

Dance

- 1A. In addition to the General Education performance indicators, students demonstrate an understanding of dance as a shared cultural event when giving presentations (dance, lecture, vide, written report).
- 1B. In addition to the General Education performance indicators, students demonstrate knowledge of cultural elements in dance presentation of folk and classical repertories.
- 1C. In addition to the General Education performance indicators, students prepare formal presentation that use materials about dance and dancers of other times and places.

Music

- 2A. In addition to the General Education performance indicators, students analyze music from various cultures on the basis of its functions, giving examples and describing used to which music is put in those cultures.
- 2B. In addition to the General Education performance indicators, students in performing ensembles, read and perform repertoire in a culturally authentic manner and use culture-based criteria for assessing performances, their own and others'.

Theatre

- 3A. In addition to the General Education performance indicators, students conduct an in-depth investigation of the works of a given culture or playwright.
- 3B. In addition to the General Education performance indicators, students create a multicultural theatre festival of excerpts from plays representing various cultures.