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## Description of the Adaptations to the New Standards® Performance Standards and New Standards® Primary Literary Standards by DoDEA

NCEE and the University of Pittsburgh collaborated in developing the New Standards® Performance Standards, which are curriculum standards for English and Language Arts (ELA), mathematics, science, and applied learning for grades 4, 8 and 10, and the New Standards® Primary Literary Standards, which are standards for reading and writing for grades K through 3. DoDEA has developed content standards for grades Pre-K, 5, 6, 7, 9, 11 and 12 based on New Standards® Performance Standards and the New Standards® Primary Literary Standards. DoDEA will use its NCEE-based content standards as a basis for conducting subsequent curriculum and standards work, to include a collection of student work for use as exemplars of performance benchmarks, and the description of how such student work meets DoDEA content standards. It will also continue to refine existing NCEE-based standards solely for its own internal applications.

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Strand:

**E1 Reading**

Reading is a process which includes demonstrating comprehension and showing evidence of a warranted and responsible interpretation of the text. “Comprehension” means getting the gist of a text. It is most frequently illustrated by demonstrating an understanding of the text as a whole; identifying complexities presented in the structure of the text; and extracting salient information from the text. In providing evidence of a responsible interpretation, students may make connections between parts of a text, among several texts, and between texts and other experiences; make extensions and applications of a text; and examine texts critically and evaluatively.

Standard:

**E1a:** The student reads at least twenty-five books or book equivalents each year. The quality and complexity of materials to be read is based on the lexile level of grade 6 (800L-1050L). The materials should include traditional and contemporary literature (both fiction and non-fiction) as well as magazines, newspapers, textbooks, and on-line material. Such reading should represent a diverse collection of material from at least three different literary forms and from at least five different writers.

Examples:

*Examples of activities through which students might produce evidence of reading twenty-five books include:*

- *Maintain an annotated list of works read.*
- *Generate a reading log or journal.*
- *Participate in formal and informal book talks.*

Standard:

**E1b:** The student reads and comprehends at least four books (or book equivalents) about one issue or subject, or four books by a single writer, or four books in one genre, and produces evidence of reading that:

Components:

- E1b.1:** makes and supports warranted and responsible assertions about the texts;  
**E1b.2:** supports assertions with elaborated and convincing evidence;  
**E1b.3:** draws the text together to compare and contrast themes, characters, and ideas;  
**E1b.4:** makes perceptive and well developed connections; and  
**E1b.5:** evaluates writing strategies and elements of the author’s craft.

Examples:

*Examples of activities through which students might produce evidence of reading comprehension include:*

- *Make connections between literary works according to a common theme.*
- *Participate in formal or informal book talk.*
- *Produce a literary response paper.*
- *Create an annotated book list organized according to author, theme, or genre.*
- *Make relevant, logical, coherent contributions to a discussion (e.g. book talk, literature circle).*
- *Create a personal response to a selection or experience.*
- *Debate or hold a panel discussion regarding the perspectives in various genres.*
- *Select literature from a variety of genres or authors.*

Standard:

**E1c:** The student reads and comprehends informational materials to develop understanding and expertise and produces written or oral work that:

Components:	<b>E1c.1:</b> restates or summarizes information; <b>E1c.2:</b> relates new information to prior knowledge and experience; <b>E1c.3:</b> extends ideas; and <b>E1c.4:</b> makes connections to related topics or information.
Examples:	<i>Examples of activities through which students might produce evidence of reading informational materials include:</i> <ul style="list-style-type: none"><li>• <i>Present information to an audience of peers.</i></li><li>• <i>Produce a chapter book on a factual topic using more than one source.</i></li><li>• <i>Rewrite video game instructions for a younger reader.</i></li><li>• <i>Summarize and expand oral and written presentation using content specific/ technical vocabulary.</i></li><li>• <i>Use multi-media tools to present information and enhance a project.</i></li><li>• <i>Organizes key information read using a graphic format.</i></li></ul>
Standard:	<b>E1d:</b> The student demonstrates familiarity with a variety of public documents (i.e., documents that focus on civic issues or matters of public policy at the community level and beyond) and produces written or oral work that does one or more of the following:
Components:	<b>E1d.1:</b> identifies the social context of the document; <b>E1d.2:</b> identifies the author's purpose; <b>E1d.3:</b> formulates an argument and offers evidence to support it; <b>E1d.4:</b> examines or makes use of the appeal of a document to audiences both friendly and hostile; and <b>E1d.5:</b> identifies or uses commonly used persuasive techniques.
Examples:	<i>Examples of activities through which students might produce evidence of familiarity with public documents include:</i> <ul style="list-style-type: none"><li>• <i>Summarize and critique two or more local newspaper articles related to the same topic or issue.</i></li><li>• <i>Respond to a public address made by an adult, e.g., the principal, a PTA/PTO officer, a visiting author.</i></li><li>• <i>Write a letter to the editor in response to an editorial or to an article of local or national importance.</i></li><li>• <i>Explain a local document to someone who has never heard of it (e.g., a school related directive, a community related brochure, or an informational pamphlet)</i></li><li>• <i>Evaluate the use of language patterns and literary devices such as, figurative language and dialogue.</i></li></ul>
Strand:	<b>E2 Writing</b>
	Writing is a process through which a writer shapes language to communicate effectively. Writing often develops through a series of initial plans and multiple drafts and through access to informed feedback and response. Purpose, audience, and context contribute to the form and substance of writing as well as to its style, tone, and stance.
Standard:	<b>E2a:</b> The student produces a report that:
Components:	<b>E2a.1:</b> engages the reader by establishing a context, creating a persona, and otherwise developing reader interest; <b>E2a.2:</b> develops a controlling idea that conveys a perspective on the subject;

- E2a.3:** creates an organizing structure appropriate to a specific purpose, audience and context;
- E2a.4:** includes appropriate facts and details;
- E2a.5:** excludes extraneous and inappropriate information;
- E2a.6:** uses a range of appropriate strategies, such as providing facts and details, describing or analyzing the subject, and narrating a relevant anecdote; and
- E2a.7:** provides a sense of closure to the writing.

Examples:

*Examples of reports include:*

- *An informative report (comparing and contrasting attributes, e.g., comparing and contrasting the attributes of two civilizations).*
- *A chapter book.*
- *A multimedia presentation using research gained from print and other media sources.*
- *A report produced as part of studies in subjects such as science, social studies, and mathematics.*
- *A report of information on an item of personal interest or experience.*

Standard:

**E2b:** The student produces a response to literature that:

Components:

- E2b.1** engages the reader by establishing a context, creating a persona, and otherwise developing reader interest;
- E2b.2:** advances a judgment that is interpretive, analytic, evaluative, or reflective;
- E2b.3:** supports judgment through references to the text, references to other works, authors, or non-print media, or references to personal knowledge;
- E2b.4:** demonstrates an understanding of the literary work;
- E2b.5:** provides a sense of closure to the writing.
- E2b.6:** anticipates and answers a reader's questions;

Examples:

*Examples of responses to literature include:*

- *A literary response paper.*
- *A book review.*
- *A parody.*
- *A literary analysis paper.*
- *A comparison of a children's literary classic with a televised version of the same work.*
- *A brochure.*
- *A journal*
- *A newspaper or magazine article.*

Standard:

**E2c:** The student produces a narrative account (fictional or autobiographical) that:

Components:

- E2c.1:** engages the reader by establishing a context, creating a point of view, and otherwise developing reader interest;
- E2c.2:** establishes a situation, plot, point of view, setting, and conflict (and for autobiography, the significance of events);
- E2c.3:** creates an organizing structure;
- E2c.4:** includes sensory details and concrete language to develop plot and character;
- E2c.5:** excludes extraneous details and inconsistencies;

- E2c.6:** develops complex characters;
- E2c.7:** uses a range of appropriate strategies, such as dialogue and tension or suspense; and
- E2c.8:** provides a sense of closure to the writing.

Examples:

*Examples of narrative accounts include:*

- *A biographical account.*
- *A problem-solution essay.*
- *A fiction or non-fiction story.*
- *A personal narrative.*
- *A historical account.*
- *A news account of an event, fiction or non-fiction.*
- *A videotape presentation.*
- *An observational writing.*

Standard:

**E2d:** The student produces a narrative procedure that:

Components:

- E2d.1:** engages the reader by establishing a context, creating a persona, and otherwise developing reader interest;
- E2d.2:** provides a guide to action that anticipates a reader's needs; creates expectations through predictable structures, e.g., headings; and provides transitions between steps;
- E2d.3:** makes use of appropriate writing strategies such as creating a visual hierarchy and using white space and graphics as appropriate;
- E2d.4:** includes relevant information;
- E2d.5:** excludes extraneous information;
- E2d.6:** anticipates problems, mistakes, and misunderstandings that might arise for the reader; and
- E2d.7:** provides a sense of closure to the writing.

Examples:

*Examples of narrative procedures include:*

- *A set of rules for organizing a class meeting.*
- *A chapter book developed around procedures, e.g., how to have a safe vacation, with chapters on safe swimming, safe games, and other issues of safety.*
- *A set of instructions for using media technology.*
- *An explanation of a mathematical procedure.*
- *A report of information explaining steps and/or procedures for a familiar activity.*

Standard:

**E2e:** The student produces a persuasive essay that:

Components:

- E2e.1:** engages the reader by establishing a context, creating a persona, and otherwise developing reader interest;
- E2e.2:** develops a controlling idea;
- E2e.3:** creates and organizes a structure that is appropriate to the needs, values, and interests of a specified audience and arranges details, reasons, examples, and anecdotes effectively and persuasively;
- E2e.4:** includes appropriate information and arguments;
- E2e.5:** excludes information and arguments that are irrelevant;
- E2e.6:** anticipates reader concerns and counter-arguments;
- E2e.7:** provides a sense of closure to the writing.

Examples:

*Examples of persuasive essays include:*

- *A position paper.*
- *An evaluation of a product or policy.*
- *A letter to an official that uses arguments to support an opinion.*
- *A speech for a candidate for school or public office.*
- *A multimedia presentation based on a text read.*
- *An advertisement.*
- *A commercial script.*

Strand:

**E3 Speaking, Listening, and Viewing**

Speaking, listening, and viewing are fundamental processes which people use to express, explore, and learn about ideas. The functions of speaking, listening, and viewing include gathering and sharing information; persuading others; expressing and understanding ideas; coordinating activities with others; and selecting and critically analyzing messages. The contexts of these communication functions include one-to-one conferences, small group interactions, large audiences and meetings, and interactions with broadcast media.

Standard:

**E3a:** The student participates in one-to-one conferences with a teacher, paraprofessional, or adult volunteer, in which the student:

Components:

- E3a.1:** initiates new topics in addition to responding to adult-initiated topics;  
**E3a.2:** asks relevant questions;  
**E3a.3:** responds to questions with appropriate elaboration;  
**E3a.4:** uses language cues to indicate different levels of certainty or hypothesizing, e.g., “what if...,” “very likely...,” “I’m unsure whether...”; and  
**E3a.5:** confirms understanding by paraphrasing the adult’s directions or suggestions.

Examples:

*Examples of one-to-one interactions include:*

- *Book Talks with a teacher or parent.*
- *Analytical discussions of a movie or television program with a teacher or parent.*
- *Interviews with teachers or other adults with discussion.*
- *Interviews with multiple teachers or adults about their opinions of a major international news event.*
- *Dialogue with a teacher, parent or adult about a reflection on a collection of the student’s work.*
- *Discussion with a teacher or parent about a portfolio of work.*

Standard:

**E3b:** The student participates in group meetings, in which the student:

Components:

- E3b.1:** displays appropriate turn-taking behaviors;  
**E3b.2:** actively solicits another person’s comment or opinion;  
**E3b.3:** offers own opinion forcefully without dominating;  
**E3b.4:** responds appropriately to comments and questions;  
**E3b.5:** volunteers contributions and responds when directly solicited by teacher or discussion leader;  
**E3b.6:** gives reasons in support of opinions expressed;  
**E3b.7:** clarifies, illustrates, or expands on a response when asked to do so; asks group for similar expansions;

**E3b.8:** employs a group decision-making technique such as a problem-solving sequence (e.g., recognize problem, define problem, identify possible solutions, select optimal solution, implement solution, evaluate solution).

Examples:

*Examples of activities involving group meetings include:*

- *Create a plan for a group project (e.g., organize a presentation to be made to the class; plan a science project.)*
- *Develop and negotiate meaningful class rubrics for group and self-assessment purposes with opportunities to revise and refine the rubric.*
- *Engage in a meaningful class town meeting where students articulate concerns, problems, etc., concerning their constituency in the school environment. Students, co-plan, co-conduct, form coalitions and orchestrate follow-up for problem-solving or enactment of the results of the town meeting.*
- *Take part in book talks with other students. Students co-plan, co-conduct, and strategize for the book talks.*
- *Work as part of a group to solve a complex mathematical task as related to something meaningful in their lives. Presentation of this solution in a public format other than just for classmates.*
- *Role-play to better understand a certain historical event.*
- *Participate in peer writing response groups*
- *Read favorite pieces of writing to their partners, and tell the writers what elements have an effective impact upon the audience and dialogue about the impact this feedback has upon the writer for revision purposes.*
- *Dramatize a story, including characters, dialogue, and simple stage directions; perform assigned roles for the class.*
- *Listen to introductory pages of literary pieces and make predictions.*
- *Work in pairs to prepare a presentation that focuses on aesthetic elements in a piece of literature.*
- *Have students take turns reading a poem aloud and finding rhyming words. Ask how the poet manages to deliver so much information and feeling in so few words.*
- *Meet in groups to dialogue interpretations of literary elements in a piece of literature.*

Standard:

**E3c:** The student prepares and delivers an individual presentation in which the student:

Components:

**E3c.1:** shapes information to achieve a particular purpose and to appeal to the interests and background knowledge of audience members;

**E3c.2:** shapes content and organization according to criteria for importance and impact rather than according to availability of information in resource materials;

**E3c.3:** uses notes or other memory aids to structure the presentation;

**E3c.4:** engages the audience with appropriate verbal cues and eye contact; and

**E3c.5:** projects a sense of individuality and personality in selecting and organizing content, and in delivery.

**E3c.6:** develops several main points relating to a single thesis;

Examples:

*Examples of presentations include:*

- *A presentation of project plans or a report for an Applied Learning project.*

- A report that analyzes several policies in effect throughout the school environment about the same issue with the student proposing a new policy based upon this analysis.
- A report to adults and students about a meaningful project that would enhance the quality of life or learning in the school environment.
- A role play of mythological figures who debate a current issue.
- A multimedia presentation exhibiting visual and performing artists and how they communicate with their audiences.
- characters in literature with people actually known by the student.
- A summary of a piece of significant non-fiction writing in order to orally communicate the essential points to classmates.
- A synopsis of a piece of non-fiction writing presented orally.

Standard: **E3d:** The student makes informed judgments about television, radio, and film productions; that is, the student:

Components: **E3d.1:** demonstrates an awareness of the presence of the media in the daily lives of most people;

**E3d.2:** evaluates the role of the media in focusing attention and in forming opinion;

**E3d.3:** judges the extent to which the media are a source of entertainment as well as a source of information; and

**E3d.4:** defines the role of advertising as part of media presentation.

Examples: *Examples of activities through which students might produce evidence of making informed judgments about television, radio, and film productions include:*

- Present a paper or report on reasons for selecting one media choice over another.
- Prepare a multimedia report on the benefits obtained (including information learned) from media exposure.
- Summarize patterns of media exposure in writing or in oral reports.
- Analyze the appeal of particularly memorable commercials with an analysis on how the media manipulates the audience through the appeal.
- Evaluate a television program/video format or style; compare and contrast different styles.
- Prepare a presentation that expresses a position about a major news event and contrast this presentation to one done via the public broadcasting venue.
- Create a multimedia presentation that compares television news and commentaries and incorporates sound, photos or video, and animation.
- Analyze how different forms of media address the same topic.

Strand:

**E4 Conventions, Grammar, and Usage of the English Language**

Having control of the conventions and grammar of the English language means having the ability to represent oneself appropriately with regard to current standards of correctness (e.g., spelling, punctuation, paragraphing, capitalization, subject-verb agreement). Usage involves the appropriate application of conventions and grammar in both written and spoken formats.

Standard: **E4a:** The student demonstrates a basic understanding of the rules of the English language in written and oral work, and selects the structures and features of language appropriate to the purpose, audience and context of the work. The student demonstrates control of:

Components: **E4a.1:** grammar;

- E4a.2:** paragraph structure;
- E4a.3:** punctuation;
- E4a.4:** sentence construction;
- E4a.5:** spelling; and
- E4a.6:** usage.

Examples:

*Examples of activities through which students might demonstrate an understanding of the rules of the English language include:*

- *Demonstrate in a piece of writing the ability to manage the conventions, grammar, and usage of English so that they aid rather than interfere with reading.*
- *Proofread own writing or the writing of others, using dictionaries and other resources, including the teacher or peers as appropriate.*
- *Observe conventions of language during formal oral presentations.*
- *Revise a piece of writing by combining sentences.*

Standard:

**E4b:** The student analyzes and subsequently revises work to clarify it or make it more effective in communicating the intended message or thought. The student's revisions should be made in light of the purposes, audiences, and contexts that apply to the work. Strategies for revising include:

Components:

- E4b.1:** adding or deleting details;
- E4b.2:** adding or deleting explanations;
- E4b.3:** clarifying difficult passages;
- E4b.4:** rearranging words, sentences, and paragraphs to improve or clarify meaning;
- E4b.5:** sharpening the focus; and
- E4b.6:** reconsidering the organizational structure.

Examples:

*Examples of activities through which students might produce evidence of analyzing and revising work include:*

- *Incorporate into revised drafts, as appropriate, suggestions taken from critiques made by peers and teachers.*
- *Produce a series of distinctly different drafts that result in a polished piece of writing or a presentation.*
- *Consider and respond to the critiques of peers and teachers.*
- *Critique the writing or oral presentation of a peer.*

Strand:

**E5 Literature**

Literature consists of poetry, fiction, non-fiction, and essays as distinguished from instructional, expository, or journalistic writing.

Standard:

**E5a:** The student responds to non-fiction, fiction, poetry, and drama using interpretive, critical, and evaluative processes; that is, the student:

Components:

- E5a.1:** identifies recurring themes across works;
- E5a.2:** analyzes the impact of authors' decisions regarding word choice and content;
- E5a.3:** considers the differences among genres;
- E5a.4:** evaluates literary merit;
- E5a.5:** considers the function of point of view or persona;
- E5a.6:** examines the reasons for a character's actions, taking into account the situation and basic motivation of the character;

**E5a.7:** identifies stereotypical characters as opposed to fully developed characters;

**E5a.8:** critiques the degree to which a plot is contrived or realistic;

**E5a.9:** makes inferences and draws conclusions about contexts, events, characters, and settings.

Examples:

*Examples of activities through which students might produce evidence of responding to literature include:*

- *Analyze stereotypical characters in a popular television production.*
- *Make connections between literary works according to a common theme.*
- *Produce a creative retelling of a familiar fairy tale for a group of adults.*
- *Evaluate the effect of literary devices in a number of poems by one author or poems on a common topic.*
- *Create a verse by verse paraphrase of a poem.*
- *Compare a children’s literary classic with a televised version of the same work.*
- *Participate in formal or informal book talks.*
- *Write or perform a skit.*
- *Write a parody.*
- *Speculate about point of view in a work read by the class.*

Standard:

**E5b:** The student produces work in at least one literary genre that follows the conventions of the genre.

Examples:

*Examples of literary genres include:*

- *A poem.*
- *A short play.*
- *A picture book.*
- *A story.*

The process standards of **problem solving, reasoning and proof, connections communication, and representation** are interwoven and independent with the content standards and are necessary for the comprehensive understanding of mathematics.

Strand: **M1 Numbers and Operations**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand numbers, ways of representing numbers, relationships among numbers, and number systems;
- understand meanings of operations and how they relate to one another;
- understand how to compute fluently and make reasonable estimates.

In Grade 6, all students should:

- Standards:
- M1a:** decompose and recompose whole numbers using factors and exponents;
  - M1b:** find and use prime factorization of composite numbers;
  - M1c:** use simple expressions involving integers to represent and solve problems;
  - M1d:** compare and order positive and negative decimals and fractions and find their locations on a number line;
  - M1e:** interpret and use ratios in different contexts to show relative sizes of two quantities, using appropriate notations, i.e.,  $a/b$ ,  $a$  to  $b$ ,  $a:b$ ;
  - M1f:** use order of operations, including the use of exponents, decimals, rational numbers, to simplify numerical expressions;
  - M1g:** explain the meaning and effects of arithmetic operations with positive numbers to include fractions, decimals, and percents;
  - M1h:** perform fraction and decimal computations and justify the solutions;
  - M1i:** estimate reasonableness of solutions to problems involving fractions and decimals;
  - M1j:** select and use appropriate methods and tools for computing with fractions and decimals.

Essential To Know: Students select and use a combination of appropriate arithmetic operations to solve problems that use rational numbers.  
Students apply and explain number theory concepts to solve problems.

Strand: **M2 Algebra**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand patterns, relations, and functions
- represent and analyze mathematical situations and structures using algebraic symbols;
- use mathematical models to represent and understand quantitative relationships;
- analyze change in various contexts.

In Grade 6, all students should:

- Standards:
- M2a:** recognize and generate equivalent forms of algebraic expressions.
  - M2b:** explain how the commutative, associative and distributive properties generate equivalent forms;
  - M2c:** solve simple linear equations and inequalities;

- M2d:** use symbolic algebra to represent situations, i.e., relationships found in geometry;
- M2e:** evaluate simple expressions by replacing variables with given values, and use formulas in problem-solving situations;
- M2f:** create and interpret tables and graphs to draw conclusions and make predictions;
- M2g:** create and compare representations that display constant and varying rates of change.

Essential to Know: Students should represent, analyze, and generalize patterns and relations with tables, graphs, and words.

Strand: **M3 Geometry**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships;
- specify locations and describe spatial relationships using coordinate geometry and other representational systems;
- apply transformations and use symmetry to analyze mathematical situations;
- use visualization, spatial reasoning, and geometric modeling to solve problems.

In Grade 6, all students should:

- Standards:
- M3a:** describe and classify two- and three-dimensional shapes using their defining properties;
  - M3b:** identify and plot points on a coordinate plane in all quadrants;
  - M3c:** describe sizes, positions, orientations of shapes, after rotations, reflections, and translations;
  - M3d:** recognize, explain, and perform up to two transformations on two-dimensional shapes;
  - M3e:** draw and identify two-dimensional geometric figures with specific side length or angle measure;
  - M3f:** describe and use properties of similarity and congruency with two-dimensional figures to solve problems.

Essential To Know: Students predict, describe, and perform transformations on two-dimensional shapes.  
Students identify relationships among points, lines, and planes.

Strand: **M4 Measurement**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- understand measurable attributes of objects and the units, systems, and processes of measurement;
- apply appropriate techniques, tools, and formulas to determine measurements.

In Grade 6, all students should:

- Standards:
- M4a:** explain the relationship between area and perimeter of a rectangle when one attribute is changed and the other remains constant;
  - M4b:** investigate the precision of measurement required for tasks as well as the capability/accuracy of the instruments;
  - M4c:** develop and use formulas to find the perimeters and areas of triangles and quadrilaterals and to find the area and circumference of circles;

**M4e:** find the perimeter and area of irregular polygons;

**M4f:** identify rate as a form of measurement based on time, i.e., mph, rpm, cc/min.

Essential to Know:

Students explain the relationships between perimeter and area and circumference and area of a circle.

Students use formulas to find perimeter, circumference and area.

Students identify rate as a form of measurement.

Strand:

### **M5 Data Analysis and Probability**

Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- formulate questions that can be addressed with data, and collect, organize, and display relevant data to answer them;
- select and use appropriate statistical methods to analyze data;
- develop and evaluate inferences and predictions that are based on data;
- understand and apply basic concepts of probability.

In Grade 6, all students should:

Standards:

**M5a:** read and use graphical representations to make predictions and/or draw conclusions;

**M5b:** formulate questions, design a study, and evaluate the data to reach a conclusion about characteristics shared by two populations or different characteristics that exist within a population;

**M5c:** identify the measures of central tendency and spread of a data set to describe what it indicates about the data set;

**M5d:** explain the effects of scale and/or interval changes in graphs that lead to misunderstandings;

**M5e:** select, construct, interpret, and justify the appropriate graphical representation of data;

**M5f:** use 0, 1, and ratios between 0 and 1 to represent the probability of outcomes for an event;

**M5g:** describe and model all possible outcomes of simple events using tree diagrams, organized lists, etc.;

**M5h:** explain why the sum of the probabilities of all possible outcomes of a particular event is one.

Essential to Know:

Students select, create, interpret, and justify the appropriate graphical representation of data.

Students understand and apply the fundamental concepts of probability.

Strand:

### **M6 Problem Solving**

Standard:

**M6a:** Pre-Kindergarten through Grade 12 instructional programs should enable all students to:

- build new mathematical knowledge through problem solving;
- solve problems that arise in mathematics and in other contexts;
- apply and adapt a variety of appropriate strategies to solve problems;
- monitor and reflect on the process of mathematical problem solving.

Strand: **M7 Reasoning and Proof**

- Standard: **M7a:** Pre-Kindergarten through Grade 12 instructional programs should enable all students to:
- recognize reasoning and proof as fundamental aspects of mathematics;
  - make and investigate mathematical conjectures;
  - develop and evaluate mathematical arguments and proofs;
  - select and use various types of reasoning and methods of proof.

Strand: **M8 Communication**

- Standard: **M8a:** Pre-Kindergarten through Grade 12 instructional programs should enable all students to:
- organize and consolidate their mathematical thinking through communication;
  - communicate their mathematical thinking coherently and clearly to peers, teachers, and others;
  - analyze and evaluate the mathematical thinking and strategies of others;
  - use the language of mathematics to express mathematical ideas precisely.

Strand: **M9 Connections**

- Standard: **M9a:** Pre-Kindergarten through Grade 12 instructional programs should enable all students to:
- recognize and use connections among mathematical ideas;
  - understand how mathematical ideas interconnect and build on one another to produce a coherent whole;
  - recognize and apply mathematics in contexts outside of mathematics.

Strand: **M10 Representation**

- Standard: **M10a:** Pre-Kindergarten through Grade 12 instructional programs should enable all students to:
- create and use representations to organize, record, and communicate mathematical ideas;
  - select, apply, and translate among mathematical representations to solve problems;
  - use representations to model and interpret physical, social, and mathematical phenomena.

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**Science Standards  
Grade 6**

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Strand:

**S1 Scientific Inquiry:** The student demonstrates abilities necessary to do scientific inquiry and an understanding about scientific inquiry; that is, the student:

- Standards:
- S1a: develops research questions that can be answered through scientific investigations.
  - S1b: accesses, evaluates and uses information from a variety of reliable sources.
  - S1c: designs, conducts, and records scientific investigations following the general procedures of scientific inquiry.
  - S1d: applies appropriate tools and techniques to systematically collect, record, analyze, interpret and present data.
  - S1e: develops logical descriptions, explanations, predictions, and models using evidence.
  - S1f: recognizes and analyzes interpretations, conclusions, and predictions based upon alternative evidence and explanations.
  - S1g: communicates scientific procedures, explanations, and conclusions using appropriate scientific language and mathematics.

Strand:

**S2 History and Nature of Science:** The student demonstrates an understanding of science as a human endeavor, and the history and nature of science; that is, the student:

- Standards:
- S2a: describes how doing science requires varying human abilities, interest and habits of mind (such as: reasoning, insight, skill, creativity, intellectual honesty, tolerance of ambiguity, skepticism, and openness to new ideas.)
  - S2b: identifies contributions of individuals from diverse cultures who have extended the knowledge in science and technology.
  - S2c: explains how the effects of science and technology affect cultural development, innovation and human history.

Strand:

**S3 Personal & Social Perspectives:** The student demonstrates an understanding of safety and risks and benefits associated with natural and personal hazards; that is, the student:

Standards: S3a: demonstrates personal and group safety and resource conservation.

S3b: compares the safety precautions needed during different natural hazards.

S3c: describes the risks, costs, and benefits of human decisions related to natural hazards.

S3d: explores causes of environmental degradation and resources depletion.

Strand:

**S4 Science and Technology:** The student demonstrates an understanding about science and technology, and the nature of technological design; that is, the student:

Standards: S4a: explores how societal challenges may drive scientific research.

S4b: designs and conducts a test on an invention (or existing product) based on specified criteria.

S4c: compares the intended benefits and unintended consequences of technology and how it impacts society.

S4d: describes how technology responds to societal needs.

Strand:

**S5 Physical Science:** The student demonstrates a conceptual understanding of matter, motions and forces, and transfer of energy; that is, the student:

Standards: S5a: examines characteristic physical properties of matter.

Components:

S5a1. explains that every substance has a distinct boiling point, and this property is independent of the quantity of the substance.

S5a2. demonstrates and distinguishes between ways to measure mass and volume of liquids, solids, and gases.

S5a3. analyzes data to determine the relationship between mass and volume for a variety of substances, and shows that the relationship is constant for a substance.

S5a4. explains that density is an identifying property that is independent of the quantity of material.

S5a5 Shows that equal volumes of different substances usually have different masses."

Standards: S5b: investigates how vibrations in materials set up wavelike disturbances that spread away from the source.

Components:

S5b1. models and describes the characteristic properties of waves, such as wavelength, frequency, amplitude, and speed.

S5b2. models and describes wave behaviors (i.e., reflection and refraction).

Standards: S5c: investigates how radiant energy (light) interacts with matter.

Components:

S5c1. demonstrates through investigations that light can be reflected, transmitted, and/or absorbed when it strikes an object.

S5c2. Explores how transmitted light is refracted to different degrees by a variety of materials.

S5c3. groups materials based on physical properties that affect the behavior of light (e.g., transparent, translucent, opaque, absorbent, reflective materials).

S5c4. investigates and explains that an object can be seen when light waves emitted or reflected by it enter the eye.

Strand:

**S6 Life Science:** The student demonstrates a conceptual understanding of the structure and function of living systems, populations and ecosystems; that is, the student:

Standards: S6a: compares and contrasts structure and function in unicellular and multi-cellular organisms.

Components:

S6a1. describes basic functions that all cells must carry out (e.g., extracts energy from food, eliminates waste), citing evidence from microscopic examination of unicellular organisms.

S6a2. describes structures (e.g., cell membrane, nucleus) that many cells share to carry out essential functions.

S6a3. relates the structures used by unicellular organisms to the structures used by multi-cellular organisms.

S6a4. compares and contrasts plant and animal cells, using microscopes or video technology.

S6a5. Compares and contrasts the diverse structures that unicellular organisms use to survive, citing evidence from microscopic observations.

S6a6. Explains how diverse species of animals, plants, and micro-organisms share essential similarities in cell organelles and cell processes.

Standards: S6b: explains that reproduction is a characteristic of life and essential to the continuance of a species.

Components:

S6b1. compares and contrasts asexual and sexual reproduction.

S6b2. identifies examples of asexual reproduction and sexual reproduction.

S6b3. investigates and describes the functions of reproductive structures in plants.

S6b4. explains how, in sexual reproduction of animals and flowering plants, a male sperm cell and a female egg cell merge to form a fertilized cell.

S6b5. Describes ways in which physical traits (e.g., of a flowering plant) might maximize the chances of successful reproduction.

Standards: S6c: analyzes the functions of and relationships among producers, consumers, and decomposers in ecosystems.

Components:

S6c1. categorizes organisms according to the function they serve as consumers, producers, and decomposers.

S6c2. determines through investigations the raw materials plants need to photosynthesize.

S6c3. explains why photosynthetic organisms are called producers.

S6c4. investigates and explains the importance of decay in an ecosystem.

S6c5. describes the flow of energy and matter through food webs for various ecosystems.

S6c6. identifies sunlight as the original source of energy for most ecosystems.

S6c7 identifies the two main interconnected global food webs (i.e., one that includes microscopic ocean plants, and the other that includes land plants).

S6c8. distinguishes between biotic and abiotic factors in multiple ecosystems.

S6c9. distinguishes among individuals, populations, communities, and ecosystems.

S6c10. collects data on and describes the interactions among organisms and between organisms and the physical environment in multiple ecosystems.

Strand:

**S7 Earth & Space Sciences:** The student demonstrates a conceptual understanding of the Earth's systems, history, and place in the solar system; that is, the student:

Standards: S7a: differentiates the layers of the geosphere, including the crust, the hot convecting mantle, and the dense metallic core.

Components:

S7a1. distinguishes among layers of the geosphere by their composition, state, positions relative to one another, and temperature

S7a2. explains how heat is transferred, by convection, from the core to the mantle and crust.

Standards: S7b: applies concepts of rotation, revolution, and alignment to explain the predictable patterns of phasing, eclipses and seasons.

Components:

S7b1. differentiates between rotation and revolution.

S7b2. demonstrates and explains that the rotation of earth produces the night and day cycle, and its revolution produces the year.

S7b3. models how the moon's phases can be explained by simulating the moon's orbit around the earth and its position relative to the earth and Sun.

S7b4. demonstrates the situations that will result in lunar and solar eclipses as seen from earth.

S7b5. relates seasons on earth to variations in the amount of the Sun's energy that strikes different latitudes on the surface of the earth, due to earth's tilted axis of rotation.

Standards: S7c: recognizes that gravity is the force that pulls all things towards earth's center, and governs the motions of objects in the solar system and the universe beyond.

Components:

S7c1. explains how earth's spherical shape and the force of gravity hold us on earth and cause all objects on earth to fall towards earth's center.

S7c2. Explains that most objects in the solar system are in regular and predictable motion and that this motion is caused largely by the force of gravity.

S7c3. illustrates how the gravitational attractions of the Sun and moon in different positions relative to earth cause tides on earth.

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Social Studies: Grade 6 - Ancient and Medieval Civilizations

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Standards Introduction: The standards for grade six build on the study of the world. Students engage in activities that include lessons relative to early civilizations to the countries of the world. Students learn map and globe skills, interpret information, and use processes to reconstruct events. Students compare ancient civilizations and cultures, locate geographic features, explain their relationships within the ecosystem, and describe ways that historical events have influenced national and global settings.

**SK – Skills**

The Social Studies program promotes essential skills to increase the Students ability to acquire information and manipulate data, develop and present policies and debates, construct new knowledge, and participate in groups. Each skill is dependent upon and enriched by all other skills, so that the learner can:

Skills:

- SK1a:** use geographical and historic tools (time zones, longitude, latitude, atlas, almanac, artifacts) for measurement
- SK1b:** select an appropriate strategy from alternative courses of action, predict consequences, and determine a rational course of action.
- SK1c:** compare map and text descriptions to draw inferences.
- SK1d:** infer information from captions, cartoons, photographs, etc.
- SK1e:** distinguish between primary and secondary sources.
- SK1f:** recognize appropriate ways to influence public policy and action.
- SK1g:** create a multimedia report using text, color, and importing graphics, sounds, special effects, and/or animation.

Strand/Theme:

**SS1 Citizenship**

Social studies programs should include experiences that provide for the study of the ideals, principles, and practices of citizenship in a democratic republic, so that the learner can:

Standards:

- SS1a:** analyze the role of dissent and related forms of citizen actions as efforts to change public policy.
- SS1b:** identify roles and responsibilities of citizens throughout history.
- SS1c:** determine how opinion influences the shaping of public policy and decision making.
- SS1d:** participate in activities with a variety of persons from diverse backgrounds.

Strand/Theme:

**SS2 Culture**

Social studies programs should include experiences that provide for the study of culture and cultural diversity, so that the learner can:

Standards:

- SS2a:** identify the cultural contributions of individuals, groups, and societies.
- SS2b:** explore how information and experiences may be interpreted by people from diverse cultural perspectives.
- SS2c:** explain the interaction of culture and religion.
- SS2d:** generate alternatives for dealing with social tensions and issues within and across cultures.

Strand/Theme:

**SS3 Time, Continuity, and Change**

Social studies programs should include experiences that provide for the study of the way human beings view themselves in and over time, so that the learner can:

Standards:

**SS3a:** use sources of historical information to analyze change.

**SS3b:** compare and contrast the effects of inventions and ideas across civilizations.

**SS3c:** analyze connections and patterns of historical change through the use of timelines.

**SS3d:** analyze social change resulting from social conflict.

**SS3e:** analyze the historical development of a current event.

Strand/Theme:

**SS4 Space and Place**

Social studies programs should include experiences that provide for the study of space and place, so that the learner can:

Standards:

**SS4a:** apply the geographic concepts of location, place, human-environment interactions, movement, and region to the area of study.

**SS4b:** describe how geographic factors have influenced historical events, patterns of change, and daily life.

Strand/Theme:

**SS5 Individual Development and Identity**

Social studies programs should include experiences for the study of individual development and identity, so that the learner can:

Standards:

**SS5a:** identify how controls and changes imposed by society influence personal growth.

**SS5b:** describe how regional, ethnic, and national cultures influence individual development.

**SS5c:** describe the conflict between one's personal values and society's values.

Strand/Theme:

**SS6 Individuals, Groups, and Institutions**

Social studies programs should provide for the study of the interaction among individuals, groups, and institutions, so that the learner can:

Standards:

**SS6a:** analyze the changing role of family throughout history.

**SS6b:** explain concepts such as role, status, and social class in describing the interactions of individuals and social groups.

**SS6c:** identify major groups and institutions that have played important roles in the development of civilizations.

**SS6d:** analyze examples of tensions between expressions of individuality and social conformity.

Strand/Theme:

**SS7 Production, Distribution, and Consumption**

Social studies programs should include experiences that provide for the study of how people organize for the production, distribution, and consumption of goods and services, so that the learner can:

Standards:

**SS7a:** assess the effect of the unequal distribution of wealth.

**SS7b:** discuss the effect of trade on the development of civilization.

**SS7c:** discuss the impact of economic, technological, and social changes on work.

**SS7d:** analyze the development of economic systems over time.

Strand/Theme:

**SS8 Power, Authority, and Governance** Social studies programs should include experiences that provide for the study of how people create and change structures of power, authority, and governance, so that the learner can:

Standards:

**SS8a:** explain how historical events have influenced an individual's participation in government.

**SS8b:** analyze the qualities needed for successful leadership.

**SS8c:** analyze the political, economic, religious, and social structures of the civilizations.

**SS8d:** trace the historical development of political institutions.

**SS8e:** trace the historical development of democratic ideals.

Strand/Theme:

**SS9 Science, Technology, and Society** Social studies programs should include experiences that provide for the study of the relationships among science, technology, and society, so that the learner can:

Standards:

**SS9a:** describe the changes and issues that have occurred in societies as a result of technological and scientific change.

**SS9b:** describe how science and technology have changed perceptions of the world.

**SS9c:** evaluate the success of civilizations' uses of technology in relationship with their place in time.

Strand/Theme:

**SS10 Global Connections** Social studies programs should include experiences that provide for the study of global connections and interdependence, so that the learner can:

Standards:

**SS10a:** describe how cultural elements such as language, art, music, and belief systems can both connect people and cause misunderstandings.

**SS10b:** demonstrate an understanding of how concerns, standards, issues, and universal human rights are viewed differently in society.

**SS10c:** describe the effects of technology on the global community.

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## Health Education: Grade 6

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In addition to the content standards, Health Education teachers must instill health literacy skills (HESK) into classroom activities. The six HESK have a two-fold benefit. First, they promote personal, family, and community health. Second, they teach essential and transferable skills that include accessing data, analyzing information, setting goals, and communicating ideas.

Strand:

### **HESK Health Literacy Skills**

The student applies health literacy skills in concert with health concepts to enhance personal, family and community health; that is, the student will:

Standards:

- HESK1:** access valid health information;
- HESK2:** practice health-enhancing behavior;
- HESK3:** analyze influences on health;
- HESK4:** use interpersonal communications skills to enhance health;
- HESK5:** use goal setting and decision making skills to enhance health; and
- HESK6:** advocate for health.

Strand:

### **HE1 Personal and Community Health**

The student understands the basic concepts of hygiene, health habits, and health promotion; that is, the student will:

Standards:

- HE1a:** explain good hygiene based on developmental changes;
- HE1b:** evaluate information about health issues and promotion of healthful living for adolescents;
- HE1c:** describe noncommunicable diseases of adolescents and adults; and
- HE1d:** analyze factors that influence health choices (e.g., personal factors, culture, media, peers, family, and technology).

Strand:

### **HE2 Safety and Injury Prevention**

The student demonstrates understanding of basic concepts related to safety, injury prevention or sudden illness, and prevention of child abuse and child neglect; that is, the student will:

Standards:

- HE2a:** demonstrate basic first aid for injury and sudden illness (i.e., sprain, fracture, hypothermia, frostbite, hyperthermia, seizure);
- HE2b:** identify risky behaviors for the student's age group; and
- HE2c:** describe appropriate responses to fire and weather emergencies.

Strand:

### **HE3 Nutrition and Physical Activity**

The student understands how healthful nutrition and physical activity contribute to growth and energy and help prevent chronic diseases such as heart disease, cancer, and diabetes; that is, the student will:

Standards:

- HE3a:** analyze the relationship between wellness and healthful nutrition and physical activity;
- HE3b:** demonstrate appropriate portion sizes for various food groups;
- HE3c:** explain the relationship between water, fiber, and a healthful diet; and
- HE3d:** set personal goals for nutrition and exercise.

Strand

**HE4 Mental Health**

The student understands how mental health contributes to general well-being; that is, the student will:

Standards:

- HE4a:** identify peer pressure and its impact on personal behavior;
- HE4b:** strategize actions for dealing with negative peer pressure;
- HE4c:** demonstrate healthful strategies to assess and manage conflict and stress;
- HE4d:** identify healthful ways for dealing with and preventing bullying; and
- HE4e:** describe ways adolescents show understanding and respect for diversity (i.e., cultural, physical, mental, gender, ethnic).

Strand

**HE5 Alcohol, Tobacco, and Other Drugs**

The student understands licit and illicit drugs and how to prevent abuse and access intervention and treatment resources; that is, the student will:

Standards:

- HE5a:** describe the nature of physical and psychological dependence on alcohol and tobacco;
- HE5b:** analyze influences on decisions about alcohol and tobacco; and
- HE5c:** evaluate consequences for tobacco, alcohol, and other drug use.

Strand

**HE6 Family Life and Human Sexuality**

The student understands the developmental changes that occur as he or she grows and matures through childhood to young adulthood and how these changes prepare one for adult roles in the family and society; that is, the student will:

Standards:

- HE6a:** describe the structure and function of the human reproductive system;
- HE6b:** recognize abstinence as the most effective way to prevent pregnancy;
- HE6c:** analyze influences and decisions regarding healthful sexuality; and
- HE6d:** report routes of transmission of HIV/AIDS and sexually transmitted diseases (STDs) and risky behaviors.

## Physical Education: Grade 6

To a greater extent than in the core academic subjects, Physical Education teachers must infuse personal and social skill development in helping students meet and exceed the content standards. Consequently, the presentation of the Physical Education Standards is preceded by a list of complementary Personal and Social Development Skills (PESK). Including the PESK components in teaching the Physical Education standards is critical in promoting lifelong, healthy physical activity and in realizing the wide range of benefits associated with participation in dance, sports, games, and other physical activities.

Strand:

**PESK Personal and Social Development Skills** The student applies responsible personal and social development skills in a physical activity setting. In Grade 6 all students will:

Standards:

- PESK1:** participate fully and communicate cooperatively with others;
- PESK2:** perform activities safely and follow rules of etiquette and ethical behavior;
- PESK3:** display age appropriate self-control and discipline;
- PESK4:** display a willingness to receive and use feedback to improve performance;
- PESK5:** accept the decisions of and respond positively to teachers/officials in charge of games/activities;
- PESL6:** choose healthful physical activities to experience fun, challenge, self-expression and/or social interaction;
- PESK7:** display an interest in and assist and encourage others' efforts;
- PESK8:** display behaviors that are supportive and inclusive;
- PESK9:** self-initiate behaviors that contribute to personal and partner/group effort;
- PESK10:** adjust behavior to prevent/reconcile conflicts.

Strand:

**PE1 Motor Skills and Movement Patterns** Competency in motor skills and movement patterns is needed to perform a variety of physical activities. In Grade 6 all students will:

Standards:

- PE1a:** apply basic strategic and tactical skills in modified sport, cooperative, and individual activities;
- PE1b:** demonstrate accuracy and control in throwing, striking, and hand-and-foot dribbling;
- PE1c:** display proper techniques for locomotor, nonlocomotor, and manipulative skills in a variety of individual, dual, cooperative, rhythmic/dance/gymnastic activities;
- PE1d:** use correct terminology associated with modified sports and cooperative/challenge activities;
- PE1e:** make appropriate changes in performance based on feedback to improve skills;
- PE1f:** include principles of practice in a plan to improve skills;
- PE1g:** demonstrate and articulate the importance of following rules and safety procedures; and

**PE1h:** select and use appropriate protective equipment for preventing injuries (e.g., helmets, elbow/kneepads, wrist guards, proper shoes, and clothing).

Strand:

**PE2 Physical Activity and Fitness**

A physically active lifestyle is essential to maintain a health-enhancing level of physical fitness. In Grade 6 all students will:

Standards:

- PE2a:** define the FITT Principle as it is related to physical fitness development;
- PE2b:** compare physical activity opportunities in the community to personal interests and capabilities;
- PE2c:** compare personal health- and skill-related fitness to physical fitness qualities needed to perform selected physical activities;
- PE2d:** plan ways to incorporate personal fitness development activities into one's weekly routine;
- PE2e:** measure intensity of participation in aerobic activities using a heart-rate monitor and manual methods; and
- PE2f:** perform appropriate stretching activities as part of warm-up and cool-down for specified sports and physical activities.

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Visual Arts: Grade 6

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Strand:

**VA1 Media, Techniques, and Processes**

Demonstrates understanding and can apply media, techniques, and processes.

Standards:

- VA1a:** The student compares various art materials, media, techniques, and processes.
- VA1b:** The student evaluates and selects art materials, media, technology, and techniques for desired effects in art production.
- VA1c:** The student creates works of art that express experiences and ideas and reflect craftsmanship and competency.
- VA1d:** The student uses art materials and tools, including technology, in a safe and responsible manner.

Strand:

**VA2 Structures and Functions**

Demonstrates knowledge of structures and functions.

Standards:

- VA2a:** The student evaluates effective use of elements of art and principles of design in works of art.
- VA2b:** The student evaluates how the purpose and meaning of an art work is affected by the elements of art and principles of design.
- VA2c:** The student combines various elements of art and principles of design to show artistic expression.

Strand:

**VA3 Subject Matter Symbols, and Ideas**

Chooses and evaluates a range of subject matter, symbols, and ideas.

Standards:

- VA3a:** The student integrates visual, spatial, and temporal concepts to communicate intended meaning in works of art.
- VA3b:** The student examines subject matter, symbols, and ideas of personal works of art and revises for improvement and clarity of expression.
- VA3c:** The student considers and applies a variety of sources of art content to communicate intended meaning.

Strand:

**VA4 History and Culture**

Demonstrates understanding of the visual arts in relation to history and cultures.

Standards:

- VA4a:** The student compares the characteristics of a variety of artwork in terms of forms, culture, historical context and purpose to include that of the host nation.
- VA4b:** The student describes and demonstrates how time and place influences visual characteristics that give meaning and value to a work of art.
- VA4c:** The student creates art that demonstrates how history and culture influences visual art.

Strand:

**VA5 Characteristics and Merits of Work**

Reflects upon and assesses the characteristics and merits of their work and the work of others.

Standards:

**VA5a:** The student describes, analyzes, and evaluates purposes for creating works of art by using art vocabulary.

**VA5b:** The student explains why specific works of art are created in relationship to history and culture.

**VA5c:** The student evaluates the quality and effectiveness of personal works of art and that of others using given criteria.

Strand:

**VA6 Connections to Other Disciplines**

Makes connections between the visual arts and the other disciplines.

Standards:

**VA6a:** The student compares the characteristics of two or more works of art that share similar subject matter, historical periods, or cultural context.

**VA6b:** The student identifies and explains art career opportunities.

**VA6c:** The student creates works of art that extend knowledge to other curricular areas to include the performing arts.

Strand:

**VA7 Technology Integration**

Understands and creates art through technology.

Standards:

**VA7a:** The student selects elements of art and principles of design to create works of art using technology.

**VA7b:** The student uses appropriate technological tools to manipulate and refine works of art for visual impact.

**VA7c:** The student integrates traditional art production techniques with new technology to create art.

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Music: Grade 6

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Strand:

**MU1**

Performs alone and/or with others a varied repertoire of music

Standards:

**MU1a:** The student extends his or her vocal range and demonstrates proper tone production while exhibiting good breath control.

**MU1b:** The student plays appropriate music, as defined by range, tone quality, accidentals, technique, phrasing, rhythmic accuracy, dynamics, and tempo.

**MU1c:** The student performs with simple musical expression and interpretation.

Strand:

**MU2**

Reads and notates music

Standards:

**MU2a:** The student reads sixteenth notes and triplets.

**MU2b:** The student notates sixteenth notes and triplets.

**MU2c:** The student correctly places pitches and rhythms in the treble clef.

**MU2d:** The student reads symbols of simple musical expression.

Strand:

**MU3**

Listens to, responds to, and describes music

Standards:

**MU3a:** The student listens to musical styles, such as pop, folk, classical, jazz, etc...

**MU3b:** The student responds to musical styles, such as pop, folk, classical, jazz, etc...

**MU3c:** The student describes musical styles, such as pop, folk, classical, jazz, etc. in an aural example.

**MU3d:** The student explores simple improvisation.

Strand:

**MU4 History and Culture**

Demonstrates understanding of music in relation to history and culture.

Standards:

**MU4a:** The student compares different examples of world music.

**MU4b:** The student compares the purposes of various types of world music.

**MU4c:** The student performs appropriate music related to history and culture, to include the host nation.

Strand:

**MU5 Characteristics and Merits of Works and Performances**

Reflects upon and assesses the characteristics and merits in performances in their music and the music of others.

Standards:

**MU5a:** The student compares various types of music including different interpretations of identical works.

**MU5b:** The student evaluates various types of music including, different interpretations of identical works.

**MU5c:** The student uses appropriate terminology to explain similarities and differences of various types of music including interpretations of identical works.

Strand:

**MU6 Connections to Other Disciplines**

Makes connections between music and the other disciplines.

Standards:

**MU6a:** The student compares ways that music is connected to other disciplines in the curriculum.

**MU6b:** The student integrates what is learned about various types of music with other curricular areas.

**MU6c:** The student names and discusses music career opportunities.

Strand:

**MU7 Technology Integration**

Understands and creates music through technology.

Standards:

**MU7a:** The student acquires technology skills and vocabulary that are developmentally appropriate.

**MU7b:** The student expands and uses technology skills to create music.

**MU7c:** The student explores technologies used in creating different types of world music.

**MU7d:** The student develops an awareness of music career opportunities in new technologies.