English Language Arts

Reading Skills

- Identify the purpose of a text (entertain, inform, persuade, etc..)
- Distinguish between fact and opinion
- Pose both text-based questions and questions to evoke higher-level thinking
- Draw connections between ideas within a text and to other texts
- Independently apply a variety of comprehension strategies (predicting, summarizing, paraphrasing, visualizing, retelling, etc…)
- Make inferences into overtones of text
- Support interpretations with evidence
- Engage in thoughtful discussion about readings with peers
- Consider an idea, event, or problem from multiple perspectives
- Use literature to develop an understanding of social issues and gain insights into human experiences
- Identify words and meanings

Writing Skills

- Use the writing process (brainstorm, draft, revise, and publish) to develop, clarify and communicate ideas accurately
- Use precise language to express individual perspectives and ideas drawn from personal experience
    - Persuasive: develop the foundations for constructing an argument
    - Expository (inform): explain, inform, analyze, evaluate interpret
    - Narrative: respond to literary genres to interpret and evaluate
- Create texts and media for different audiences:
- Experiment with different points of view
- Different voices
- Different styles (formal and informal)
- Show mastery of standard grammar, sentence writing, and punctuation

Speaking Skills

- Engage in both formal and informal public speaking opportunity
- Communicate ideas with clarity
- Share and support opinions in class discussions

Research Skills and Media Analysis

- Utilize text to find information. supporting evidence and relevant quotes

- Find appropriate sources of information
- Evaluate credibility and applicability of resources
- Identify keywords to foster research
- Use a variety of resources to select an appropriate text for a specific purpose
- Effectively use dictionaries, thesauri, and other supporting texts
- Use index, table of contents, footnotes, forwards, author's notes, images, cover and book flap information to focus search or aid in understanding
- Paraphrases information effectively

Mathematics

Problem Solving:

- Make sense of problems and persevere in solving them.
- Solve problems that arise in mathematics and in other contexts.
- Apply and adapt a variety of appropriate strategies to solve problems. .
- Justify and reflect on the process for problem solving and the solution.
- Solutions are accurate and precise.

Reasoning and Proof:

- 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.
- Make sense of the quantities and their relationships in problem solving.
- Understand and use stated assumptions, definitions, and previously established results in constructing arguments.

Communication (Oral and Written):

- Organize and consolidate mathematical thinking through communication.
- Communicate and defend 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.

Connections:

- Recognize and analyze patterns/structure in order to make 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.

Representation:

- Create and use representations to organize, record, and communicate mathematical ideas.
- Select, apply, and translate appropriate mathematical representations to solve problems.
- Use representations to model and interpret physical, social, and mathematical phenomena.

*Based NCTM Process Standards and Massachusetts Curriculum Frameworks

Science and Engineering

Principles of Science and Engineering

- Ask questions and define problems.
- Develop and use models.
- Plan and carry out investigations.
- Analyze and interpret data.
- Use mathematics and computational thinking.
- Construct explanations and design solutions.
- Engage in argument from evidence.
- Obtain, evaluate, and communicate information.

Crosscutting Concepts of Science and Engineering

- Observe patterns and describe relationships and the influencing factors.
- Explore situations of cause and effect and explain their underlying mechanisms.
- Recognize the importance of scale, proportion, and quantity.
- Define systems and design models to understand and test ideas.
- Understand the flow of energy and matter in various systems.
- Understand the relationship between structure and function.
- Examine the stability of various systems and rates of change as they evolve. .

Scientific Text

- Read and understand scientific texts and primary sources.
- Identify and define scientific vocabulary.
- Summarize main ideas presented in the text.
- Apply knowledge to additional situations and investigations.

Investigations

Framing the Question:

- Based on observation of phenomena, understand or come up with a question or hypothesis to investigate.
- Collect information and ideas about your question.
- Identify the variables or special factors that may affect your investigation.

Scientific Research:

- Gather information that addresses the question or hypothesis.
- Identify, use, and cite appropriate scientific references.
- Make a plan for investigating the question or hypothesis.

Laboratory Investigation:

- Make a plan for testing the question or hypothesis.
- Identify and use appropriate scientific equipment.
- Make observations and record data.
- Use appropriate representations, such as charts, tables, and graphs, to display data.

Analyzing What You Find:

- Consider multiple explanations for what you observe or discover.
- Use evidence to draw or support a logical conclusion.
- Identify possible sources of error and bias in the investigation or research.
- Verify the results of the investigation or find corroborating evidence for your research.
- Revise your explanation if necessary.

Synthesizing What You Find:

- Answer your question and/or draw conclusions about the validity of your hypothesis.
- Use the observations to ask additional questions, make new predictions, and test those predictions by running more simulations or by changing the model.
- Connect ideas to other information , or to a "real world" use.
- Use data or research to respond to questions or comments from others.
- Share and defend the results of the investigation in writing and orally.

Music

Creating:

- Improvise melodic and harmonic within a certain style
- Sing or play original musical ideas that explore complex rhythms
- Arrange the music of others. Ex: parodies.
- Understand basic music theory and how to apply it to composition
- Use a variety of sources to generate musical ideas for defined purposes and contexts
- Record using and/or audio/ video recording to document personal musical ideas.
- Use standard standard notation accurately to record musical ideas.
- Edit, refine, reflect, and evaluate on original arrangements and/compositions using criteria that includes appropriate application of compositional techniques, style, form, and use of sound sources.
- Present and share creative musical work that conveys intent, demonstrates craftsmanship, and exhibits originality.
- Apply knowledge of theory to share compositions, arrangements, and improvisations that demonstrate an accomplished level of musicianship and organization.
- Imagine new musical ideas.

Performing:

- Practice, improve and refine artistic techniques while learning to play an instrument and/or sing.
- Select varied musical works to present based on interest, knowledge, technical skill, and context
- Identify function standard symbols for notation, rhythm, pitch, articulation, dynamics, tempo, and form.
- Rehearse, evaluate, refine, evaluate, and refine personal and ensemble performances, individually or in collaboration with others.
- Identify and interpret music notation.
- Refine and determine when the music is ready to perform.
- Perform expressively, with appropriate interpretation and technical accuracy, and in a manner appropriate to the audience and context.
- Perform music with technical accuracy, stylistic expression, and culturally authentic practices in music.
- Practice and perform a varied repertoire for individual and small group performances that include melodies, repertoire pieces, stylistically appropriate accompaniments, and improvisations in a variety of contrasting styles.
- Analyze and interpret artistic work for presentation. Identify standard notation symbols and musical terms referring to dynamics, tempo, articulations, meter, and expression and apply them when performing.
- Convey meaning through the presentation of artistic work. Sing and/or play in groups responding to cues.

- Accurately perform music while reading notation, and by ear.
- Convey meaning through the presentation of artistic work: adhere to proper performance etiquette
- Select, analyze and interpret artistic work for presentation. Contribute to the production of a small group performance.
- Identify strategies and employ them while practicing music

Responding:

- Listen, analyze, and evaluate music.
- Analyze and identify ways a contemporary musical piece pushes boundaries of the genre and discipline.
- Interpret the ways one's own cultural and personal perspectives and biases affect understanding of a musical work.
- Meet expectations of an audience member like listening quietly and clapping at the end of a performance.
- Perceive and analyze artistic work: analyze how cultures are reflected in a diverse range of musical work.
- Interpret intent and meaning in artistic work: explain how a musical work is connected to the particular cultural and historical context.
- Apply criteria to evaluate artistic work: develop criteria for a rubric for evaluating musical works
- Reflect on one's work orally and in writing
- Select or choose music to listen to and explain the connections to specific interests or experiences for a specific purpose.
- Analyze how the structure and context of varied musical works inform the response
- Support interpretations of musical works that reflect creators'/performers' expressive intent.
- Evaluate Support evaluations of musical works and performances based on analysis, interpretation, and established criteria.
- Compare, contrast, and identify artistic elements from a variety of music styles and historical periods.
- Listen and write about various styles, composers, and musical time periods.

Connections:

- Synthesize and relate knowledge and personal experiences to make music.
- Describe and demonstrate influences of one's personal musical style and preferences.
- Relate artistic ideas and works to societal, cultural and historical contexts.
- Demonstrate understanding of relationships between music and the other arts, other disciplines, varied contexts and daily life.
- Explain the development of one's musicality or musical style and how it relates and compares to other music.

Health & Wellness

Self-Management:

- Identify responsible health behaviors
- Name personal health needs
- Compare behaviors that are safe to those that are risky or harmful
- Demonstrate strategies to improve and maintain health
- Develop injury prevention and management strategies
- Demonstrate ways to avoid risky situations
- Apply skills to manage stress

Interpersonal Communication:

- Demonstrate effective verbal and non-verbal communication skills
- Demonstrate healthy ways to express needs and feelings
- Show ways to communicate care, consideration, and respect of self and others
- Use communication skills to build and maintain healthy relationships
- Demonstrate refusal, negotiation, and collaboration skills for healthy conflict management

Accessing Information:

- Evaluate the validity of health information, products, and services
- Demonstrate the ability to utilize valid health resources
- Analyze how media influences behaviors and beliefs about healthy choices
- Access school and community health services for self and others

Decision-making and Goal Setting:

- Demonstrate the ability to use various strategies when making health related decisions
- Analyze how health related decisions are influenced by outside sources
- Predict how health related decisions affect self and others
- Implement strategies and skills needed to attain personal and community health goals
- Evaluate progress toward achieving personal and community health goals

Health Advocacy:

- Express information and opinions about health issues
- Use strategies to overcome barriers when communicating ideas, feelings, and opinions about health issues
- Support others in making positive health choices
- Evaluate the effectiveness of communication methods for expressing health information