WELCOME TO HIGH SCHOOL

The following pages focus more specifically on the Massachusetts learning standards for **HIGH SCHOOL**.

dese MASSACHUSETTS Department of Elementary and Secondary Education

Massachusetts PTA

OUR VISION IS THAT:

All students in Massachusetts, particularly students from historically underserved groups and communities, will have equitable opportunities to excel in all content areas across all grades. Culturally and linguistically sustaining classroom and school practices will support students to thrive by creating affirming environments where students have a sense of belonging, engage in deeper learning, and are held to high expectations with targeted support.

HERE ARE SOME GENERAL QUESTIONS YOU CAN ASK YOUR

STUDENT'S SCHOOL:

- What curriculum are you using to support instruction?
- How can I support my student outside of school?
- My student can struggle with ____. How do you support them with this?

HERE ARE SOME GENERAL QUESTIONS YOU CAN ASK YOUR

ELEMENTARY STUDENT:

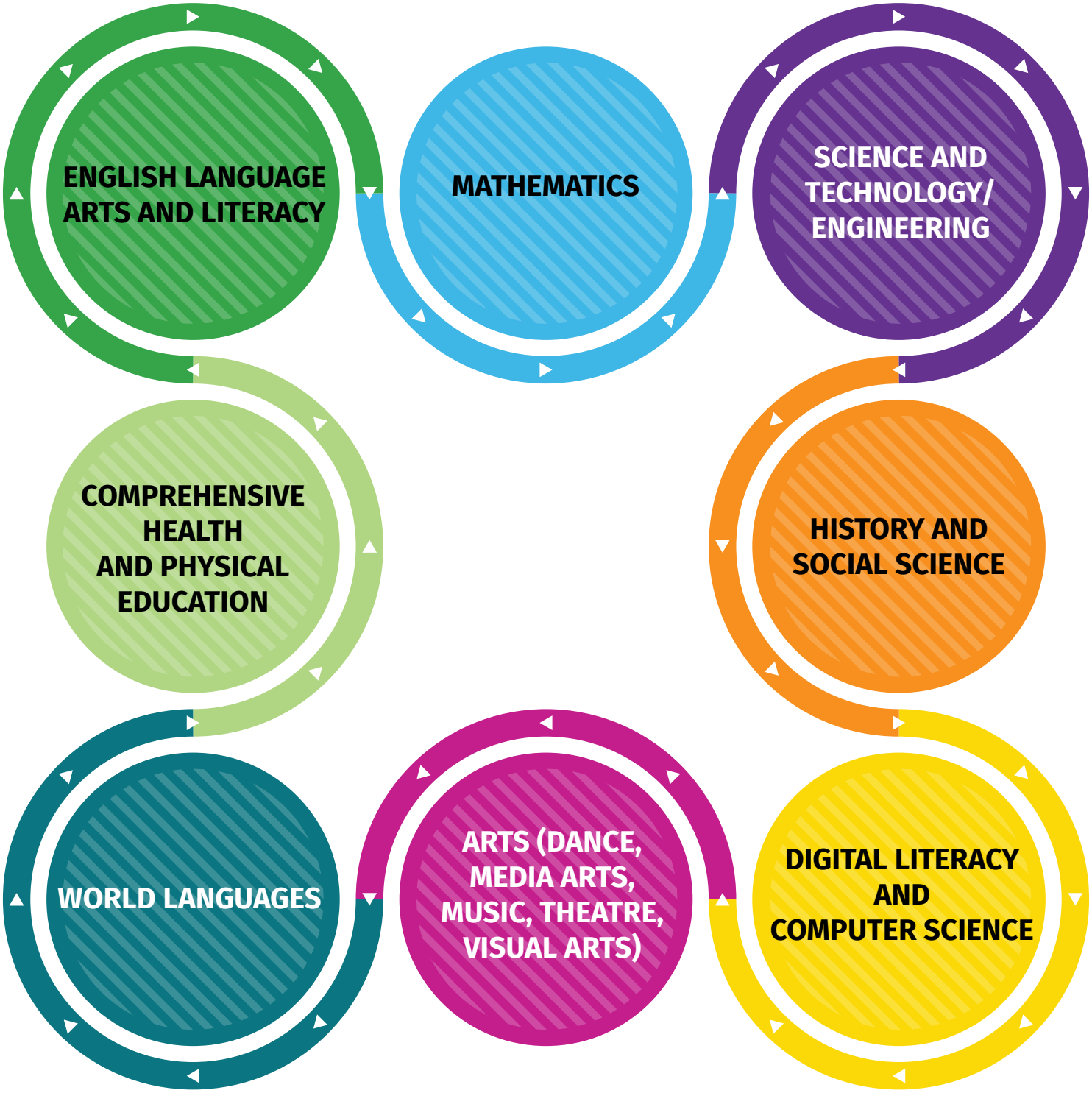
- What do you enjoy about school?
- What is one activity you did today in class? What did you learn from that activity?
- Do you know who to go to when you need help?

HERE ARE SOME GENERAL QUESTIONS YOU CAN ASK YOUR

SECONDARY STUDENT:

- What do you enjoy about school?
- What is an activity you did in class recently? What did you learn from it?
- Do you know where to get support when you need it?

THIS GUIDE PROVIDES MORE DETAILS ABOUT LEARNING EXPECTATIONS IN THIS GRADE FOR:



ENGLISH LANGUAGE ARTS AND LITERACY

FOCUS AREAS FOR HIGH SCHOOL:

- Conduct in-depth research, using technology as appropriate, synthesizing information from diverse sources from different cultures, backgrounds, and perspectives to address complex questions, while refining inquiries as needed.
- Develop precise claims and counterclaims, supported by evidence, with consideration of audience perspectives and potential biases.
- Engage in advanced writing modes (e.g., analytical essays, narratives) to express complex ideas effectively.
- Use cultural and linguistic knowledge to demonstrate understanding of standard English conventions while focusing on grade-appropriate general academic and domain-specific words and phrases.
- Engage in meaningful discussions by analyzing diverse sources, evaluating complex ideas, and communicating clearly, persuasively, and appropriately for different audiences.
- Strengthen background knowledge by examining global, historical, and cultural contexts in literary and informational texts.

BY THE END OF HIGH SCHOOL, STUDENTS CAN:

- Read challenging texts to expand knowledge and understand a subject more deeply.
- Analyze complex texts with multiple themes, perspectives, or structures.
- Follow an author's reasoning, check if it makes sense, and notice if the evidence supports the argument.
- Identify false or misleading statements in texts.
- Understand when materials on the same topic disagree, and figure out if those disagreements are about facts, interpretations, or points of view.
- Use context, word relationships, and tools like dictionaries to figure out the meaning of unfamiliar words, including synonyms, antonyms, and idioms.
- Expand background knowledge by engaging with texts that challenge or deepen understanding of a subject.
- Evaluate arguments for clarity, logic, and quality of evidence, and present clear ideas or arguments in writing or conversation supported by evidence from trustworthy sources
- Take part in group discussions, like Socratic seminars, where everyone shares their opinions and backs them up with evidence from texts.

QUESTIONS YOU CAN ASK YOUR CHILD:

- Have you come across any texts with different points of view or ideas that disagree with each other? How do you decide which side to agree with?
- What recent discussion or debate did you have in class? What was your argument, and how did you support it with evidence?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Types of texts that your student is reading in class (fiction, non-fiction, poetry, etc.)
- How your child analyzes diverse perspectives in texts
- Strategies to link classroom learning to current events and global issues.

Mathematics equips students with problem-solving skills and prepares them for careers in fields such as criminal justice, engineering, finance, education, health care and social science. Districts have flexibility in designing high school course sequences to meet the math standards. Most students follow either a traditional course sequence (Algebra 1, Geometry, Algebra 2…) or an integrated one (Math 1, Math 2, Math 3…).

All high school students focus on six areas of math:

1. **Number and Quantity,** including complex numbers (numbers that include imaginary numbers) and numbers with rational exponents (numbers that can be shown using fractions). For example, choose appropriate units and technology to model the movement of a swing or the acceleration of a jet.
2. **Algebra,** applicable to tasks like calculating mortgage payments and comparing the costs of phone plans. Create and interpret linear and quadratic equations, use polynomials, solve systems of inequalities, and more.
3. **Functions,** describing situations where one quantity depends on another: for example, the value of a savings account depends on how long it has existed or tracking student success over time. Use function notation, build functions, create quadratic and trigonometric models, and more.
4. **Modeling,** choosing and using appropriate methods to understand situations in the world and make good decisions about them. For example, create a model to predict how much food and drinking water a city will need after a flood. In high school modeling is not a stand-alone category, rather students will integrate modeling into their exploration of the other focus area standards.
5. **Geometry,** applicable to tasks like making quilts, architecture and creating computer animations. Work with concepts like congruence, similarity, and symmetry; explore geometric proofs and connections between algebra and geometry.
6. **Statistics and probability,** applicable to tasks like how a disease spreads in a community or how police allocate resources in a given community. Conduct experiments using random samples, calculate the probability of events, use probability to make good decisions, and more.

QUESTIONS YOU CAN ASK YOUR CHILD:

- How does what you are learning in math connect to other subjects like technology, science, business, construction, health care, criminal justice, or education?
- What is something you found interesting in math this year?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Your child's readiness for and interest in future math courses
- Your child's course options beyond Algebra 2 or Mathematics 3

SCIENCE AND TECHNOLOGY/ENGINEERING

The standards for science and technology/engineering (STE) focus on five areas: Earth and space science, biology, chemistry, physics, and technology/engineering. Districts have flexibility in designing high school course sequences and courses—including electives like environmental science, robotics, and forensics—aligned to the standards. No matter what courses they take, all high school students develop and master certain STE skills, or practices. They might demonstrate these STE practices by:

- **Analyzing and comparing** solutions to global problems, like strategies for using less fossil fuel.
- **Planning an investigation** to find out how photosynthesis turns light energy into stored chemical energy.
- **Designing, building, and improving** devices that change energy from one form to another.
- **Using evidence to explain** how chemical elements are categorized based on their properties and behaviors.
- **Developing and using models** (including mathematical and computer-generated models) to explain, predict, or analyze: for example, to explain the carbon cycle, describe the impacts of climate change, or illustrate forces and changes in energy between magnetically or electrically charged objects.
- **Using math** to explain that living and nonliving factors affect populations and species within an ecosystem.
- **Using evidence to explain** relationships between natural resources, human populations, and biodiversity.
- **Researching and communicating evidence** to demonstrate biological evolution and human impacts to Earth's systems.

QUESTIONS YOU CAN ASK YOUR CHILD:

- What are you trying to figure out in science class?
- How can you use what you've learned in science to solve problems that you care about?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Places in the community (museums, universities, businesses) where your child can apply science by working or volunteering
- Your child's interests and readiness for future science or engineering courses and careers

High school students take courses in United States and world history as well as in other social science topics like news/media literacy or personal financial literacy. They learn through research and inquiry, completing multi-step projects focused on important and interesting questions and problems. At some point during high school, students lead a civics project in the community where they take action on an issue that matters to them.

- No matter what courses they take, all high school students develop certain history and social science skills, or practices:
- Being an involved and informed member of society
- Recognizing problems and questions that need to be addressed through research and/or action
- Seeking out information from various sources representing a variety of perspectives and deciding which to trust
- Explaining what they have learned about a problem or question to different audiences
- Explaining what should be done about the problem or question

Throughout high school, students explore how people of diverse backgrounds have shaped the United States, how the country became a world power, and how groups and individuals have fought for equality and against injustice. Students also explore world cultures, empires, and nations and the many ways in which they have interacted throughout history and continue to interact today, including through studying examples of genocide throughout history. During their study of history, students engage in discussions about bigotry, racism, and prejudice in order to develop an informed understanding of the past.

QUESTIONS YOU CAN ASK YOUR CHILD:

- Can you tell me about a Supreme Court case you studied? Why is it important?
- What can teenagers do to participate in state and local politics?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Trustworthy sources of news to read and discuss
- Different ways your child can be involved in the school and community

DIGITAL LITERACY AND COMPUTER SCIENCE

FOCUS AREAS FOR HIGH SCHOOL:

- Develop technology skills relevant to their goals for college and career.
- Use digital tools to create projects and publish their work online.
- Engage in critical thinking to solve problems in class and beyond.
- Explore computer-related opportunities in their future college and career plans.

BY THE END OF HIGH SCHOOL, STUDENTS CAN:

- Explain how to deal with cyberbullying, peer pressure, and other dangerous situations online.
- Discuss the impact of computer-related laws, for example protecting digital privacy.
- Analyze the good and bad effects of computing innovations, for example social media, assistive technology for people with disabilities, or online shopping.
- Collaborate on a substantial project using online digital tools, for example a for a science fair or community service project.
- Create a project that answers a research question, communicates results, and cites sources.
- Examine the history of computing devices and discuss the implications for future technology.
- Explain how computer networks are vulnerable to attacks and how they can be protected.
- Compare the value of using an existing service versus building it from scratch.
- Explain how to take a larger problem and break it into smaller parts to solve it more effectively.
- Compare multiple solutions to the same problem and explain why one method might be better.
- Describe how computers store data, for example the resolution and file size of digital images.
- Use databases to sort information and visualize results with tables, charts, and graphs.
- Collect and analyze data to answer a question or test a hypothesis, for example to find out which sport is most popular by conducting an online survey shared with classmates.

QUESTIONS YOU CAN ASK YOUR CHILD:

- What is the most interesting thing you have learned in DLCS this year?
- How do you think technology affects society?
- What laws are there about technology? Do you think we need new laws about it?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Places in the community where your child can advance their DLCS knowledge by working or volunteering.
- Your child's interest in different college/career options and which DLCS courses are offered in high school that support these interests.

FOCUS AREAS FOR HIGH SCHOOL:

- Master various art forms through extended research and practice
- Refine an expansive repertoire of concepts and skills within each art form to express specific artistic ideas
- Engage deeply with different works of arts from diverse cultures and periods of time
- Harness their own choices and preferences for artistic expression

BY THE END OF HIGH SCHOOL, STUDENTS CAN:

For Dance:

- Create and perform an original dance that conveys meaning, expresses emotions, and communicates an idea to the audience.
- Synthesize personal style and preferences in dance movement and choreography based on one's own self-reflection and practice.

For Media Arts:

- Create media productions to support a central idea and artistic intent.
- Identify how bias, culture, and privilege can impact the criteria used to evaluate media artwork.

For Music:

- Analyze the style a musician uses and how it manifests itself in a given musical work.
- Contribute to the production of a small group musical performance

For Theatre:

- Consider which stories and voices are encountered in theatre the most and the least, and why this may be.
- Analyze how multiple theatrical methods or styles appear together to create a singular performance or world onstage.

For Visual Arts:

- Consider how intended meaning changes or stays the same when a visual artwork is seen in relationship with other artists' ideas, opinions, beliefs, and habits.
- Seek and respond to artistic critique around material and tool choices within peer groups and with teachers.

QUESTIONS YOU CAN ASK YOUR CHILD:

- What is the most interesting thing you have learned and/or created in the arts this year?
- How has learning in the arts helped you to understand the many cultures of the world?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Specific preferences for arts events that your child may like to attend outside of school
- How your child imagines they will use their learning in the arts beyond high school

WORLD LANGUAGES

FOCUS AREAS FOR HIGH SCHOOL:

- Use the target language to analyze diverse viewpoints in written, spoken, or signed messages, and to describe, compare, persuade, and support opinions in a variety of personal and academic contexts
- Analyze and explain variation in products, practices, and perspectives of the varied cultures that use the studied language and compare them to their own
- Use the language in authentic ways, such as expanding upon grade-level content from other courses and engaging with speakers/signers of the language in the community
- Graduate with the Massachusetts State Seal of Biliteracy.

BY THE END OF HIGH SCHOOL, STUDENTS CAN:

- Analyze the main ideas, supporting details, underlying, subtle features, and the author's lens when reading, viewing, or listening to authentic texts
- Converse effectively and at length about topics personal, academic, and general interests
- Apply authentic resources to construct detailed and organized presentations and arguments
- Adapt language and behavior to communicate appropriately in varied settings
- Analyze the reciprocal effects of products, practices, perspectives, and identity features upon the formation of culture and cultural identity
- Compare products, practices, perspectives, identity features, and linguistic features and taking the perspective of those from varied cultures
- Use the language to expand understanding of other grade-level content and to obtain diverse viewpoints
- Use the language to engage with community and/or family members, to make or strengthen friendships, for personal enjoyment, and to set linguistic goals, such as obtaining the MA State Seal of Biliteracy.

QUESTIONS YOU CAN ASK YOUR CHILD:

- How do you think that earning the State Seal of Biliteracy will benefit your future personal, academic, or career goals?
- How does studying this language help you understand diverse perspectives or challenge your own views?
- Can you explain how cultural practices in the language you're learning reflect the values and history of that culture?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- How I can support my child in setting and achieving goals toward earning the State Seal of Biliteracy
- How language proficiency is measured and how your child can make progress
- Opportunities for my child to use the target language outside of class, such as cultural events, language clubs, or online exchanges with native speakers?

FOCUS AREAS FOR HIGH SCHOOL:

- Make health-promoting, informed, responsible decisions and solve problems in a variety of health-related situations.
- Enhance relationships, personal health, and the health of others through social awareness and effective communication.
- Examine how emotions, thoughts, needs, values, beliefs, and other factors influence behaviors
- Access, evaluate, and use valid and reliable health information, products, services, and related resources.
- Promote personal, family, and community health and well-being.

BY THE END OF HIGH SCHOOL, STUDENTS CAN:

- Analyze how health risk behaviors and protective factors can influence overall health and how environmental factors can impact those behaviors.
- Demonstrate strength-based strategies for implementing aspects of acknowledging others' perspectives.
- Examine, compare, and contrast aspects of various personal relationships
- Explain age of consent laws and why it is an individual's responsibility to obtain consent.
- Evaluate readiness, options, and their respective consequences regarding sexual activity in consensual relationships.
- Analyze the potential impacts of drugs on multiple dimensions of health.
- Identify contributing causes that can influence public, community, or environmental health and analyze strategies to address these causes.
- Evaluate resources from home, school, and community that provide valid health information.

QUESTIONS YOU CAN ASK YOUR CHILD:

- How do the Health/Physical Education practices you're learning relate to the real world?
- Do you have a friend or trusted adult at school who you can discuss Health/ Physical Education related topics with? If yes, what topics do you discuss?

TOPICS YOU CAN DISCUSS WITH YOUR CHILD'S TEACHER:

- Ways you can expand your child's knowledge of community health issues
- Opportunities for your child to take elective and advanced courses in health sciences