Quick Reference Guide: Aligning Curriculum to Massachusetts Standards

The 2017 curriculum frameworks for English language arts (ELA) and literacy and for mathematics share certain characteristics with the Common Core State Standards (CCSS) but depart from them in significant ways. The same is true of our 2016 framework for science and technology/engineering (STE) with respect to the Next-Generation Science Standards (NGSS). When Massachusetts systems and educators adopt or adapt curricular materials aligned to the CCSS or NGSS, they must consider carefully the ways in which those materials may diverge from the Massachusetts standards.

This quick reference guide is designed to support teachers, coaches, administrators, and curriculum developers in that work. It cannot capture every distinction between the Massachusetts standards and others, but it highlights some key considerations when preparing to select, develop, adapt, or supplement curricular materials for ELA/literacy, math, and STE in Massachusetts.

English Language Arts and Literacy

When evaluating curricular materials for their alignment to the Massachusetts ELA/literacy standards, begin by asking these overarching questions:

Do the materials encourage **flexibility and variety in student writing**? The 2017 Massachusetts framework treats argument, explanation, and narrative as broad categories encompassing a wide range of writing types. It also values writing that serves more than one function.

Do the materials encourage attention to **language skills in authentic contexts** linked to the reading, writing, and speaking and listening standards? For example, do they ask students to think carefully about vocabulary when revising their writing or giving a presentation?

Do the materials encourage students to use and **analyze literary elements** such as patterns of sound (e.g., alliteration), figurative language (e.g., personification), genre (e.g., myth), and other effects (e.g, mood)? Do they expose high school students to **literary criticism**?

Do the materials ensure that students **engage with texts representing diverse genres, media, cultures, and perspectives** as well as **diverse types of complexity** (e.g., vocabulary, syntax, knowledge demands, levels of meaning)?

For a more detailed look at how the 2017 ELA/literacy framework differs from our 2010 framework, which incorporated the CCSS, see "Highlights: 2017 Revisions to the ELA/Literacy Standards."

Mathematics

When evaluating CCSS-aligned curricular materials for their alignment to the Massachusetts mathematics standards, begin by asking these overarching questions:

Do the materials incorporate the **Standards for Mathematical Practice (SMPs) in grade-appropriate ways**? The 2017 Massachusetts framework provides descriptions of the SMPs specific to each of three grade spans: PK–5, 6–8, and 9–12.

Do the materials truly **balance conceptual understanding, procedural fluency, and application** in instruction and assessment? For instance, do they provide daily opportunities for students to apply their understanding of math to **real-world problems**?

Do the materials **distinguish between "fluency" and "knowing from memory"**? Do they support students to **become fluent using a variety of strategies**, including knowing some answers from memory, using patterns, and using the properties of operations?

Do the materials provide a **coherent secondary course pathway**? The 2017 Massachusetts framework provides clear guidance on expectations for each course: for example, the types of functions students should focus on in Algebra I versus Algebra II.

For a more detailed look at how the 2017 Mathematics framework differs from our 2010 framework, which incorporated the CCSS, see "Highlights: 2017 Revisions to the Mathematics Standards."

Science and Technology/Engineering

When evaluating NGSS-aligned curricular materials for their alignment to the Massachusetts science and technology/engineering standards, begin by asking these overarching questions:

Do the materials focus on **integrating the disciplinary core ideas with the science and engineering practices**? The 2016 Massachusetts framework prioritizes integrating content with the practices to help students make sense of phenomena and design solutions to problems.

Do the materials tell a **clear "story" connecting grade to grade or course to course**? To ensure coherent progressions of student learning, the Massachusetts STE standards are grade-specific through middle school and organized into courses in high school.

Do the materials **treat technology/engineering as a discipline** equivalent to more commonly studied sciences? Do they address core ideas in the Massachusetts engineering standards, such as **engineering design; materials, tools, and manufacturing; and technological systems**?

For more on our standards' differences from the NGSS, see the last two FAQs on our 2016 STE Framework.

In Focus: Haverhill

When selecting STE curricular materials, Haverhill identified the EQuIP rubric as a key resource. The EQuIP rubric refers to the NGSS's three dimensions of learning: STE practices, disciplinary core ideas, and cross-cutting concepts. Because the Massachusetts STE framework includes STE practices and disciplinary core ideas *but not cross-cutting concepts*, they adapted the tool for their use by replacing "cross-cutting concepts" with "real-world application"—another important dimension of learning valued highly in Haverhill and and emphasized in the Massachusetts STE framework. By using this modified rubric to evaluate STE curricular materials, they take advantage of existing resources while acknowledging what is unique about Massachusetts standards.