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Massachusetts Department of Elementary and Secondary Education
Mitchell D. Chester, Ed.D.
Commissioner

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Commissioner’s Foreword

Dear Colleagues:

The Massachusetts Department of Elementary and Secondary Education is committed to working in partnership with schools to support a system that will prepare all students to succeed as productive and contributing members of our democratic society and the global economy. To assist in achieving this goal, the Department regularly releases Massachusetts Comprehensive Assessment System (MCAS) test items to provide information about the kinds of knowledge and skills that students are expected to demonstrate.

This publication contains all MCAS test items on which student scores are based for grade 10 English Language Arts and Mathematics tests and for high school Biology, Chemistry, Introductory Physics, and Technology/Engineering tests. This document also contains approximately 50% of common test items from spring 2012 MCAS tests in grades 3–8.

The Department has banked thousands of MCAS items that are currently posted on the Department website. These items, which are available at www.doe.mass.edu/mcas/testitems.html, will continue to be a rich resource for schools.

This publication is available only on the Department website. The released test items for individual subjects at each grade level can be printed from this site. I encourage educators to use the relevant sections of this document together with their test item analysis reports as guides for planning changes in curriculum and instruction that may be needed to support schools and districts in their efforts to improve student performance.

Thank you for your support as we work together to strengthen education for our students in Massachusetts.

Sincerely,

Mitchell D. Chester, Ed.D.
Commissioner of Elementary and Secondary Education
I. Document Purpose and Structure
Document Purpose and Structure

Purpose

The purpose of this document is to share with educators and the public spring 2012 test items on which student results are based. Local educators will be able to use this information to identify strengths and weaknesses in their curriculum and instruction and to plan instruction to more effectively meet their students’ individual needs.

This document is also intended to be used by school and district personnel as a companion document to test item analysis reports. The reports list, for the school accessing the report, the names of all enrolled students in the grade covered by the report as well as information about how each student answered each item contained in this document. Each report also labels each item as multiple-choice, open-response, short-response, short-answer, or writing prompt and identifies the item’s MCAS reporting category. Item numbers in this document correlate directly to the “Item Numbers” in the test item analysis reports.

Like last year, reports for grades 3–8 will indicate whether students responded correctly or incorrectly to 2012 MCAS common items that are not included in this document; reports will not indicate the correct responses to unreleased items. Reporting categories and framework standards assessed by unreleased 2012 MCAS common items are included in a table at the conclusion of each chapter for grades 3–8 in this document.

New for 2012, some reports for grades 3–8 ELA and Mathematics will also display information about how items on the 2012 tests can be assigned to standards in the 2011 Massachusetts Curriculum Frameworks. More information about the transition of MCAS to the standards in the 2011 Frameworks is available on the Department website at www.doe.mass.edu/mcas/transition.

Structure

Each subsequent chapter of this document contains information and materials for one MCAS test (one grade level and one content area). For example, chapter II contains information for the grade 3 ELA Reading Comprehension test; chapter XV contains information for the grade 10 Mathematics test. Note that chapters III, VI, and VIII contain information for both the ELA Composition (Part A) and the ELA Reading Comprehension (Part B) tests for the relevant grade.

Beginning with chapter II, each chapter has three main sections. The first section introduces the chapter by listing the Massachusetts curriculum framework content strands assessed by MCAS in that chapter’s content area. These content strands are identical to the MCAS reporting categories under which test results are reported to schools and districts. The first section also provides the Web address for the relevant
framework and the page numbers on which the learning standards assessed by the test items in the chapter can be found. In addition, there is a brief overview of the test (number of test sessions, types of items, reference materials allowed, and cross-referencing information).

For grades 3–8, the second section of each chapter contains approximately half of each content area’s common test items used to generate spring 2012 MCAS student results. The second section of each chapter for grade 10 ELA and Mathematics tests and high school Biology, Chemistry, Introductory Physics, and Technology/Engineering tests contains all of the common items on which spring 2012 MCAS student results are based. With the exception of the ELA Composition writing prompts, the test questions in this document are shown in the same order and basic format in which they were presented in the test booklets. The Mathematics Tool Kit pieces used by students to answer released items in grades 3 and 4, as well as the Mathematics Reference Sheets used by students in grades 5, 6, 7, 8, and 10 Mathematics test sessions are inserted immediately following the last question in each Mathematics chapter. Students were provided with a plastic ruler during the grades 3–8 Mathematics tests and the high school Technology/Engineering test. An image of the ruler is not presented in this document. The reference tools used by students during the high school Science and Technology/Engineering tests (Chemistry Formula and Constants Sheet/Periodic Table of the Elements for the Chemistry test; formula sheets for the Introductory Physics and Technology/Engineering tests) are inserted immediately following the last question in the second section of the associated chapter.

Due to copyright restrictions, certain English Language Arts reading passages are not available on the Department’s website. Copyright information for all released common reading passages is provided in the document. Note that the Department has obtained permission to post all ELA passages that appear on its website. While the Department grants permission to use the posted test items for educational purposes, it cannot grant or transfer permission to use the passages that accompany the items. Such permission must be obtained directly from the holder of the copyright. For further information, contact Student Assessment Services at 781-338-3625.

The final section of each chapter is a table that cross-references each released common item with its MCAS reporting category and with the framework standard it assesses. Correct answers to released multiple-choice questions and Mathematics tests released short-answer questions are also listed in the table. For grades 3–8, this section also includes a table that cross-references each unreleased common item with its MCAS reporting category and with the framework standard it assesses.

Responses to short-response questions, open-response questions, and compositions written in response to writing prompts are scored individually. An overview of procedures for scoring these responses and compositions is presented in the MCAS Frequently Asked Questions, which are available on the Department’s website at www.doe.mass.edu/mcas/overview.html. Sample student responses and compositions from previous MCAS administrations may also be viewed on the Department’s website.
Materials presented in this document are not formatted exactly as they appeared in student test booklets. For example, in order to present items most efficiently in this document, the following modifications have been made:

- Some fonts and/or font sizes may have been changed and/or reduced.

- Some graphics may have been reduced in size from their appearance in student test booklets; however, they maintain the same proportions in each case.

- For grades 7 and 10, the ELA Composition writing prompt is presented on the same page as the make-up writing prompt, and the four lined pages provided for students’ initial drafts are omitted.

- All references to page numbers in answer booklets have been deleted from the directions that accompany test items.