

Mathematics Student Readiness Toolkit: Overview

INTRODUCTION

The Mathematics Student Readiness Toolkit is a standards-based guide designed to help educators determine what information students retained from the previous school year when returning to school after the ordered school-building closures. It includes a variety of resources classroom teachers can use to identify instructional gaps that may have occurred during remote learning and support students to begin a new school year. The toolkit can be used to supplement what districts may already be doing to prepare for the next school year. Educators and districts are not required to use the supports in toolkits but may pick and choose the resources that are most useful to help support their students.

The goal of this overview document is to review the resources included in the Mathematics Student Readiness Toolkit. This overview document in conjunction with the narrated PowerPoint will help educators understand how to use the Toolkit to support student learning.

MATHEMATICS GAP ANALYSIS TOOL FOR GRADES K-12

- The Mathematics Gap Analysis is a new resource that includes all Ohio's Learning Standards for grades K-12 mathematics.
- The Gap Analysis Tool can help teachers determine which standards were addressed in the previous year and what skills students are bringing with them when they return to school in the fall.
- The Gap Analysis tool is available for [grades K-8](#) and [High School](#).
- This tool can be used to indicate what was taught to an entire class and is not designed to be a report on individual students.
- The Mathematics Gap Analysis identifies the grade level or conceptual category, domain, standard (e.g., 3.NBT.1) and the full text of the learning standard.
- The Gap Analysis Tool includes columns titled "Taught Prior to Remote Learning," "Taught Remotely" and "Comments."

CURRENT RESOURCES

There are several existing mathematics resources that educators may already be using in the classroom.

- The [K-8 Learning Progressions](#) and [Color Coded K-5 Learning Progression](#) are Word documents with the standards shown across the grades by domain. The K-8 Learning Progressions are in black and white but can be coded to reflect learning opportunities. Districts can highlight in green the standards taught before remote learning and yellow those taught within the remote learning time period. Meanwhile, the K-5 Color Coded Learning Progression document has been color-coded to reflect the progression of a mathematical area. Each of these mathematical areas covers a

multigrade span, includes standards from different domains and increases the mathematical understanding over time.

- The main areas are the following:
 - Addition and Subtraction red
 - Multiplication and Division blue
 - Number and Place Value black
 - Geometry brown
- [Critical Areas of Focus](#) - These documents for [grades K-8](#) and [high school courses](#) identify related standards with explanations of the overall mathematical understanding that is to be developed.
- The [Model Curriculum](#) offers local educators in-depth guidance about groups or clusters of Ohio’s Learning Standards. It also explains related skills and knowledge students are to learn in each grade and course. The purpose of Ohio’s model curriculum is to provide clarity to the standards, as well as information to assist educators in planning and implementing their local curricula.

As educators begin to use this tool, it is important to understand how all of the components work together to accomplish the goal of educating Ohio students.

- [Depth of Knowledge Resources](#) - The Depth of Knowledge (DOK) level describes the level of understanding required to answer a question or perform an activity, not whether the task is considered “difficult.” What mental processing, or cognitive rigor, must occur for a student to complete the task?
- Practice Tests and Released Items - [Half-length practice tests](#) and released test items are available for each of Ohio’s State Tests in the Student Practice Site part of the test portal. These items allow students to become familiar with the online test environment by showcasing the different item types, features, and functionality available to students during online testing. [Scoring guides](#) are also provided for the mathematics practice tests and released items.

USING RELEASED TEST ITEMS – STUDENT READINESS ASSESSMENT ITEM RELEASE GUIDES

- Each guide is specific to a grade level or high school course.
- The items contained in these guides have been selected from the pool of released items from previous spring administrations of Ohio’s State Tests.
- Items are grouped together by Reporting Category and [Critical Area of Focus](#).
- The collection of items as a whole is not representative of a single test form. They are presented to offer a range of opportunity to work with each reporting category but do not comprise an actual test statistically. They are chosen to offer a range of experience with items of varying levels of difficulty or complexity.
- Items contained in the guides are reflective of the 2017 Ohio’s Learning Standards for Mathematics. All items satisfy the criteria set forth by the grade-level/course [Test Specifications](#) and Content Elaborations and Expectations for Learning established by the grade-level/course [Model Curriculum](#).

- Each guide contains the following sections to help teachers support students in the classroom:
 - How These Items Can Be Used
 - Using Released Items to Plan Instruction
 - Preparing for Instruction

ASSESSMENT LITERACY TOOLS

These materials may give teachers a foundational understanding of several assessment tools that can be used in the classroom. More detail for some of these tools is provided on the toolkit page.

- [Test Specifications](#) – How to use in the classroom.
 - [Test Specifications for Ohio's State Tests in Mathematics](#)
- [Test Blueprints](#) – How to use in the classroom.
 - [Test Blueprints for Ohio's State Tests in Mathematics](#)
- [Performance Level Descriptors \(PLDs\)](#)
- [Understanding Formative, Interim and Summative Assessments in the Classroom](#)
- Video – [How Ohio Builds State Tests](#)
- [Item Development Sequence](#)
- [Roadmap from OST Assessment Development Resources to Classroom Assessment Practices](#)

MATHEMATICS SAMPLE TESTS - **COMING AUGUST 2020**

Full-length sample tests will be available in the [Student Practice Site](#) on Ohio's State Test portal in August 2020.

- The sample tests are composed of released test items previously used on Ohio tests.
- Each test is the length of a live operational test, meets blueprint expectations and is of similar difficulty.
- The tests will be machine-scorable, like the practice tests, for all items.
- Actual student responses are in the scoring guide and can be used in whole-class instruction to show if there are differences between responses at various score points.
- The sample tests give educators insight into the item types students may see and are a useful tool to inform classroom instruction.
- Tests can be used by both teachers and parents to help students learn to manage their time, to work in the testing environment and to help them understand the expectations of the state tests.
- Scoring guides are available for each sample test that include the standard associated with each item. Examples of student responses also are available to illustrate actual work and the corresponding points earned.