



## Using Classworks Assessments to Determine the Need for Dyscalculia Evaluation

Classworks Universal Screeners have been validated by the National Center on Intensive Intervention (NCII), and they received the highest ratings for reliability and validity. Classworks Universal Screeners for Mathematics are formal assessments used to measure readiness for grade-level instruction, help identify baseline learning levels, and measure growth. The Universal Screeners were specifically designed for the purpose of screening students who may need additional intervention and can be used as part of the RtI or MTSS process.

Once all students have completed a Universal Screener, educators can develop a grade or class profile and identify students whose performance indicates that they are having difficulty with numeration and conceptual skills. Brain-related research explains that kindergarten through second grade is a critical time for screening due to the rapid growth of children's brains and their response to instruction during this time (Nevills & Wolfe, 2009). Therefore, it's critical for K-2 teachers to have the right assessment tools.

### About Dyscalculia

Dyscalculia is a learning challenge that causes students to have trouble with math. People with this math learning challenge may have difficulty understanding arithmetic concepts and doing addition, multiplication, and measuring. Dyscalculia can make it hard for a person to understand math concepts or do tasks that involve math. Often, individuals with dyscalculia struggle with tasks that require them to determine patterns, compare quantities or measurements, and use numbers for counting.

*The National Institutes of Health (NIH) describes dyscalculia as a learning disability affecting the acquisition of numerical-arithmetical skills. Affected people show persistent deficits in number processing, which are associated with aberrant brain activation and structure.*

# Assessments to Indicate Further Testing

The Classworks Universal Screeners measure student performance with key domains that are indicative of future math performance: numeration, one-to-one correspondence, quantity discrimination, and estimation. Each of these strands has been identified as early predictors for further screening for learning disabilities, specifically dyscalculia.

In addition to measuring performance of key domains, Classworks Universal Screeners are recommended by NCII because of:

- The breadth of content assessed
- The fact that Individualized Learning is generated that meets the child at their instructional level
- The automated connection to Progress Monitoring probes that will continually fine-tune lessons included in each child's intervention

This continuation of assessment follows the Data-Based Individualization (DBI) model and is easily acted upon by educators.

Research indicates that universal screeners for kindergarten to second grade students are most effective for indicating when further Dyscalculia testing is appropriate when they include:

- Mathematical processing
- Number sense
- Operations and algebraic thinking tasks

Academic screeners measure some, but not all, of the discrete skills that should be considered when determining whether a learning disability is present. The Classworks K-2 Mathematics screeners indicate whether further testing for dyscalculia is needed.



The table below shows specific indicators correlated to the specific domains from the Classworks Universal Screener.

Early Indicators of Dyscalculia	Classworks Universal Skill Domains
<b>Number Sense</b> <ul style="list-style-type: none"> <li>• Forward counting</li> <li>• Backward counting</li> <li>• Skip and systematic counting</li> <li>• Place value</li> </ul>	<b>Numeration</b> <ul style="list-style-type: none"> <li>• Compare whole numbers</li> <li>• Apply understanding of number relationships</li> <li>• Identify a number ten more or ten less than a given number</li> </ul>
<b>Estimation</b> <ul style="list-style-type: none"> <li>• Estimate using place value</li> </ul>	<b>Measurement</b> <ul style="list-style-type: none"> <li>• Estimate a measurement</li> </ul>
<b>Quantity Discrimination</b> <ul style="list-style-type: none"> <li>• Compare numbers</li> <li>• Compare groups and sets</li> </ul>	<b>Mathematical Processes</b> <ul style="list-style-type: none"> <li>• Group, count, order, and sort sets of objects</li> <li>• Identify equivalent representations of mathematical concepts</li> </ul>
<b>Using Formulas and Algorithms</b> <ul style="list-style-type: none"> <li>• Solve operations with whole numbers</li> <li>• Solve inequalities</li> </ul>	<b>Operations</b> <ul style="list-style-type: none"> <li>• Solve problems using operations</li> <li>• Add with regrouping</li> </ul> <b>Algebra</b> <ul style="list-style-type: none"> <li>• Relate problem situations to number sentences involving addition and subtraction</li> <li>• Represent relationships of quantities in the form of mathematical expressions, equations, or inequalities</li> </ul>

The Classworks Universal Screener is specifically designed to determine a student's risk for mathematical difficulty and the need for intervention. This data is often used as part of the RtI or MTSS process. Once the Universal Screener has been administered; teachers review overall and domain-specific scores and use this data to develop a grade or class profile. Individuals who struggle with number sense, mathematical processing, and computational operation test items are evident. Specifically, students who score below the 25 percentile on specific skills that may indicate further dyscalculia testing is needed are identified. Teachers have the data they need to ensure that if additional evaluation for dyscalculia or related learning disabilities is needed, it can happen quickly.

## About Classworks

Classworks leverages technology and evidence-based learning practices to transform how school districts support students' academic, social-emotional, and behavioral needs. The comprehensive MTSS and Special Education solution includes academic screeners, math and reading individualized interventions, progress monitoring, social-emotional and behavioral resources, and powerful data visualizations. Classworks assessments and progress monitoring probes are validated by the National Center of Intensive Intervention (NCII) and Classworks is endorsed by the Council of Administrators of Special Education (CASE).