Testing 1-2-3 Website Overview

Kendra Olsen | Outreach & Training Specialist – Statewide Testing
Ten Minnesota Commitments to Equity

1. Prioritize equity.
2. Start from within.
4. Go local.
5. Follow the money.
7. Monitor implementation of standards.
8. Value people.
10. Give students options.
1. Introduction and background
2. Assessment and Data Literacy Overview
3. Website Resources
4. Teacher involvement opportunities

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• States must do more to promote data literacy among teachers.

• States should do this by:
  1. Promoting data use skills
  2. Ensuring ease of access to data
  3. Adopting a common language around data literacy

- *The Data Quality Campaign: Teacher Data Literacy: It’s About Time*, 2014
Why is data and assessment literacy important?

• Many teachers report feeling overwhelmed with data, rather than empowered by data as a tool for improving instruction and outcomes for students.

• There is an urgent need to support teacher data literacy through state support.

• Without it, data will continue to be a burden to teachers rather than a powerful tool for effective teaching.

- The Data Quality Campaign: Teacher Data Literacy: It’s About Time, 2014
Background for State Testing Outreach

• 2016 – Implementation began of a federal grant (SLDS) to help build data use capacity among districts

• March 2016 – OLA evaluation of standardized testing in Minnesota

• June 2016 – MDE State Testing Division hired an Outreach Specialist

• March 2017 – OLA Report released

  • Part of OLA’s Recommendation: MDE should further increase outreach and support to school districts and charter schools regarding the interpretation and use of test scores.
• 2017 Winter – Focus Groups started to gather initial input from educators
• 2017 Spring and Summer – First draft of Testing 1,2,3 Website
• 2018 – Second round of teacher focus groups
• 2019 Winter – New outreach specialist hired
• 2019 Spring – website redesign using feedback from teachers and admin
• 2019 Summer – Website redesign and launch!
1. Promote teacher data use skills related to assessment of student learning
   • Outreach and support to school districts and charter schools regarding the interpretation
     and use of test scores.

2. Provide easier access to data and assessment resources from state testing
   that are specific to teachers

3. Increase teacher involvement with State Testing Division at MDE
Assessment and Data Literacy Overview
Assessment Literacy

• Assessment literate educators know **how**, **when**, and **why** to assess student learning.

• Assessment literate educators design and/or choose a variety of assessments that are able to elicit evidence of student mastery of the Minnesota Academic Standards.
Formative Assessment:
...takes place at different times **DURING** instruction.
(assessment for learning)

Summative Assessment:
...takes place **AFTER** instruction.
(assessment of learning)
# A Comparison of Assessment Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Examples &amp; Frequency</th>
<th>Evidence Produced</th>
<th>Level of Impact</th>
<th>Used by</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative</td>
<td>• Daily Checks for Understanding</td>
<td>• Lesson sized learning targets</td>
<td>Used to make immediate decisions about what students currently know, and where to go next</td>
<td>Students and teachers in classroom</td>
</tr>
<tr>
<td></td>
<td>• Weekly Quizzes</td>
<td>• Retained learning across lessons and achievement level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interim</td>
<td>Midterm Exams that occur 2-3 times per year</td>
<td>Cumulative, longer-term learning retention</td>
<td>Evaluate curriculum effectiveness and used for macro-level planning</td>
<td>• Groups of Teachers</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• School Leaders</td>
</tr>
<tr>
<td>Summative</td>
<td>• Unit Tests or Performance Tasks</td>
<td>Proficiency of learning compared to the Minnesota Academic Standards and Achievement Level Descriptors</td>
<td>Used for accountability and evaluation of curriculum in regards to the standards</td>
<td>• Groups of Teachers</td>
</tr>
<tr>
<td></td>
<td>• State Tests (MCA)</td>
<td></td>
<td></td>
<td>• School, District Leaders</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Policy Makers</td>
</tr>
</tbody>
</table>
• Assessment systems, when implemented effectively, can cause students to learn, not just simply measure student performance.

  - Stiggins and Chappuis, *Theory into Practice (2005)*

• When students see evidence of their success on classroom formative assessments, they can watch themselves grow as learners. This cannot come from MCA results which are too infrequent.

• If students track their progress on learning goals aligned to Benchmarks and ALDs, they gain a better sense of control and confidence in their own learning.
Comprehensive and Balanced Assessment System

Minnesota Academic Standards specify K-12 expectations for content and instruction. All Minnesota students leave high school college and career ready.

Classroom Assessments based on formative practices that continuously improve teaching and learning.

Summative assessments
Benchmarked to Minnesota Academic Standards

Teachers and schools use data from all assessments to constantly improve teaching and learning.

Interim assessments used for actionable feedback.
Minnesota Assessment Data: One Component

Making educational decisions

Data from the state

Data from the school

Data from the district

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Data literate educators **continuously, effectively, and ethically access, interpret, act on, and communicate multiple types of data** from state, local, classroom, and other sources in order to **improve outcomes** for **students** in a manner appropriate to their professional roles and responsibilities.

- *The Data Quality Campaign: Teacher Data Literacy: It’s About Time*, 2014
Purposes of Minnesota Assessments

- To measure achievement
- To measure academic progress
<table>
<thead>
<tr>
<th>Test Names</th>
<th>Standards</th>
<th>Year Adopted</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCA and MTAS</td>
<td>Minnesota K–12 Academic Standards in English Language Arts</td>
<td>2010</td>
</tr>
<tr>
<td></td>
<td>Minnesota K–12 Academic Standards in Mathematics</td>
<td>2007</td>
</tr>
<tr>
<td></td>
<td>Minnesota K–12 Academic Standards in Science</td>
<td>2009</td>
</tr>
<tr>
<td>ACCESS and Alternate ACCESS for ELLS</td>
<td>WIDA English Language Development Standards</td>
<td>2011</td>
</tr>
</tbody>
</table>
Website Resources
Testing 1, 2, 3: A Resource for Teachers

Educators empowered with reliable data use it to eliminate learning barriers and evaluate classroom instruction. This website is an effort to provide teachers with relevant assessment and data resources that support an equitable learning environment where all students can achieve at high levels.
Plan and Teach Resources

• Standards Based Learning Goals
• Success Criteria
• MCA Test Structure – by subject
• MCA Content Resources – by subject
• Released MCA Questions from Past Exams
• Daily learning goals should be aligned to the Minnesota Academic Standards, and communicated directly to students.

• A student centered assessment system instills a growth mindset, and helps students engage in their own learning.

<table>
<thead>
<tr>
<th>Learning Targets</th>
<th>Clear</th>
<th>Not Clear</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I can identify the main idea in fiction and non-fiction text.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>2. I can identify the concepts associated with culture.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>3. I can sort and classify objects using one attribute.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>4. I can compare the functions of carbohydrates and proteins.</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>5. I can study the characteristics of sea creatures.</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>6. I can identify parallel and perpendicular lines.</td>
<td>✓</td>
<td></td>
</tr>
</tbody>
</table>
• Assessments must accurately reflect clearly specified and appropriate achievement expectations.

• Teachers “unpack” Minnesota Academic Standards and translate them into Learning Targets that articulate what mastery looks like

• Use Achievement Level Descriptor (ALD) resources to analyze depth and breadth of curriculum

https://testing123.education.mn.gov/test/plan/success/ > ALDs
### Success Criteria (2)

https://testing123.education.mn.gov/test/plan/success/ > ALDs

#### High School Science MCA-III Achievement Level Descriptors

These are supplementary materials to the Science MCA Achievement Level Descriptors. The overview for the MCA Achievement Level Descriptors and how to interpret them are on the MDE website at MDE > Districts, Schools and Educators > Statewide Testing > Achievement Level Descriptors.

<table>
<thead>
<tr>
<th>Strand</th>
<th>Does Not Meet</th>
<th>Partially Meets</th>
<th>Meets</th>
<th>Exceeds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nature of Science and Engineering</td>
<td>Students at this level of science proceed at one of the most fundamental levels of the Minnesota Academic Standards. Some of the skills demonstrated may include:</td>
<td>Students at this level of science partially meet the science skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:</td>
<td>Students at this level of science meet the science skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:</td>
<td>Students at this level of science exceed the science skills of the Minnesota Academic Standards. Some of the skills demonstrated may include:</td>
</tr>
<tr>
<td></td>
<td>● Determines the appropriate safety procedures for a scientific investigation</td>
<td>● Identifies sources of error in an investigation</td>
<td>● Describes how changes in scientific knowledge usually builds on earlier knowledge</td>
<td>● Formulates a hypothesis and conducts an experiment to test the hypothesis</td>
</tr>
<tr>
<td></td>
<td>● Understands what a hypothesis is</td>
<td>● Understands that engineering designs are continually checked so that they can be improved</td>
<td>● Explains how bias might influence how research is done and the interpretation of data</td>
<td>● Supports a conclusion with evidence from the investigation</td>
</tr>
<tr>
<td></td>
<td>● Identifies the benefits of using scientific models</td>
<td>● Recognizes that scientific knowledge occurs in steps that build on prior knowledge</td>
<td>● Recognizes that risk analysis is used to evaluate consequences of an engineered solution</td>
<td>● Develops possible solutions to an engineering problem in a global context</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Selects appropriate graphical representations to communicate results</td>
<td>■ Evaluates possible solutions to an engineering problem at a local and regional level</td>
<td>■ Uses appropriate numeric, or graphical representations to communicate a scientific idea</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Identifies a scientific hypothesis</td>
<td>■ Uses appropriate numeric, or graphical representations to communicate a scientific idea</td>
<td>■ Suggests ways to improve data collection</td>
</tr>
<tr>
<td>Life Science</td>
<td>● Understands that photosynthesis converts light energy into chemical energy</td>
<td>● Uses words to describe the process of photosynthesis</td>
<td>● Explains how cell parts and processes respond to environmental factors and their functions in respiration, reproduction and photosynthesis</td>
<td>■ Recognizes structures of biological molecules</td>
</tr>
<tr>
<td></td>
<td>● Identifies how competition for resources affects population growth</td>
<td>● Identifies DNA, genes and chromosomes</td>
<td>● Identifies primary functions of some biological molecules</td>
<td>■ Describes and differentiates between the processes of replication, transcription and translation of nucleic acids</td>
</tr>
<tr>
<td></td>
<td>● Recognizes the primary function of DNA</td>
<td>● Matches base pair of DNA</td>
<td>● Describes the role of DNA and RNA in assembling protein molecules</td>
<td>■ Understands the consequences of human activity on living organisms and ecosystems</td>
</tr>
<tr>
<td></td>
<td>● Identifies how air quality affects personal health</td>
<td>● Recognizes characteristics of sexual and assexual reproduction</td>
<td>● Recognizes how internal and external factors affect biological systems</td>
<td>■ Describes matter transformations and the dissipation of energy as heat in a natural ecosystem</td>
</tr>
</tbody>
</table>

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25
MCA Test Structure

- Subject and grade level specific Documents
- Created from Test Specs and Test Blueprint
MCA Test Structure (2)

• Useful for planning Scope & Sequence, Pacing Calendars, improving curriculum alignment, etc.

• Caution: This is only one resource to help with pacing and should not be the only resource used.

https://testing123.education.mn.gov/test/plan/res/index.htm
Statewide Testing

The Statewide Testing division is responsible for: 1) measuring student performance on Minnesota’s Academic Standards and the WIDA English language development standards; 2) measuring the academic progress of students over time; and 3) providing Minnesota graduates a score related to career and college readiness. This is done by coordinating the development, administration, and reporting of the Minnesota statewide student assessment system. This section includes information on testing calendars, alternate assessment requirements, and more.

Pearson provides the MCA and MTAS assessments in mathematics, reading, and science and the OLPA in reading and mathematics. The WIDA consortium develops the ACCESS and Alternate ACCESS for ELLs assessments that are administered to all English learners.

Assessment Resources
The majority of assessment resources for district staff are posted to the Resources & Training tab of PearsonAccess Next, including trainings, user guides, and the Procedures Manual for the Minnesota Assessments, which is the main resource for District Assessment Coordinators. The Testing Directions and student resources are under the Preparing for Testing tab.

Communication
Statewide Testing communicates with DACs and other interested district staff in a variety of ways, including a weekly Assessment Update email and various trainings. DACs, District Technology Coordinators, Superintendents, and charter school Directors automatically receive

Released Items and Passage Sets
The table shows the cost of apples.

<table>
<thead>
<tr>
<th>Pounds of Apples</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>$4</td>
</tr>
<tr>
<td>4</td>
<td>$8</td>
</tr>
<tr>
<td>6</td>
<td>$12</td>
</tr>
<tr>
<td>?</td>
<td>$18</td>
</tr>
</tbody>
</table>

Ben paid $18 for apples at the grocery store.

How many pounds of apples did Ben buy?

- A. 7
- B. 8
- C. 9
- D. 12

https://testing123.education.mn.gov/test/plan/ques/index.htm
The table shows the cost of apples.

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Ben paid $18 for apples at the grocery store.

How many pounds of apples did Ben buy?

- A. 7
- B. 8
- C. 9
- D. 12

Answer: C. 9
Student Misconceptions

<table>
<thead>
<tr>
<th>RATIONALE A</th>
<th>The student may have thought the table was going in consecutive numeric order and chose 7 pounds since 6 was the last number of pounds in the table.</th>
</tr>
</thead>
<tbody>
<tr>
<td>RATIONALE B</td>
<td>The student may have thought that the number of pounds of apples has to be a &quot;plus 2&quot; pattern and may not have taken the output values into consideration.</td>
</tr>
<tr>
<td>RATIONALE C</td>
<td>Correct - The student recognized that the input value is multiplied by 2 to get the output value and therefore recognized that 9 pounds of apples costs $18.</td>
</tr>
<tr>
<td>RATIONALE D</td>
<td>The student may have thought the pattern was to add 6 to the input value based on the last row of data in the table and therefore subtracted 6 from 18 to get an input value of 12.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Answer Selected</th>
<th>Percent of Students Who Selected It</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2%</td>
</tr>
<tr>
<td>B</td>
<td>59%</td>
</tr>
<tr>
<td>C</td>
<td>35%</td>
</tr>
<tr>
<td>D</td>
<td>5%</td>
</tr>
</tbody>
</table>
Using the Item Samplers in Formative Assessment

• Exit Slip after that standard is taught

• Warm-Up Questions at beginning of class
  • Use to gauge prior understanding before teaching the lesson
  • Use to gauge their level of understanding the day after teaching the concept

• Not intended to be used for making full-length practice tests

• NAEP Questions tool to be added in future directly on Testing 1-2-3
• Assessment Videos – explain types of assessments and examples, adapted from Wisconsin

• Components of a Comprehensive and Balanced Assessment System

• Formative, interim, and summative assessment resources
Test Development Process at MDE

1. Write Test Specs
2. Scenario and Item Writing
3. Scenario and Item Review
4. Identify OP Pool/Build OP Test
5. Data Review
6. Field Test Items
7. Bias and Sensitivity Review
8. Operational Test
9. Scoring & Equating
10. Standard Setting/Achievement Levels

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Analyze Resources

- MCA Scale Score Resources
- Guides for Interpreting Various Score Reports (ISR, Benchmarks, etc.)
- Guide for Understanding MCA and MTAS Rosters
- Data Center Overview
The estimate of “ability” (performance)
• Theta range for Minnesota Assessments [-3 to 3]

The theta/ability estimate is transformed into the scale score via transformation
• MCA-III scale scores are from X01-X99 (X = grade)

Describes the level of student achievement (Does not meet standards, Partially Meets Standards, Meets Standards, Exceeds Standards)
Where you see scale scores and ALDs

(Individual Student Report – ISR)

Scale Score (SS)
(theta transformed)

Cut Scores (based on the ALDs)

Achievement Levels
## Scale Score Ranges for Each Achievement Level

<table>
<thead>
<tr>
<th>Mathematics</th>
<th>Grade 3</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 11</th>
</tr>
</thead>
<tbody>
<tr>
<td>D</td>
<td>315 - 339</td>
<td>409 - 439</td>
<td>515 - 539</td>
<td>611 - 639</td>
<td>718 - 739</td>
<td>813 - 839</td>
<td>1102 - 1139</td>
</tr>
<tr>
<td>E</td>
<td>367 - 399</td>
<td>467 - 499</td>
<td>564 - 586</td>
<td>663 - 688</td>
<td>761 - 782</td>
<td>862 - 898</td>
<td>1165 - 1195</td>
</tr>
</tbody>
</table>

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Appropriate use of Scale Scores

- MCA scale scores are based on grade-level specific content.
- In technical terms, this means the scores are not “vertically aligned”
- Scale scores should never be compared across the grades for a particular student, especially when determining if a student has no growth, remained the same, or improved.
- The achievement levels CAN be used to assess whether student growth across grades is demonstrated.

https://testing123.education.mn.gov/test/analyze/report/ > Resources > Where do Scale Scores Come from?
MDE Data Center: Mobile Analytics

Minnesota Report Card (K – 12th Grade)

Early Childhood Longitudinal Data System (ECLDS) (Birth – 12th Grade)

Statewide Longitudinal Education Data System (SLEDS) (Pre-K through Work Force)
Teacher Involvement with State Testing
Get Involved with MDE State Testing

• If you would like to receive updates about assessment information relevant to teachers, please sign up for the Newsletter on the website.

• Or you can send an email request to mde.testing@state.mn.us OR kendra.olsen@state.mn.us
MCA Teacher Review Panel

• Please forward website link to your building Principals, who can share with teachers.
• Teachers can register in the MDE Advisory Panel database – linked on Testing 123 site

Benefits:
1. Teachers will see upcoming MCA Questions.
2. You will receive compensation for a sub if during the school year.
3. Opportunity to improve test for students
Please take the remaining time to complete the paper feedback form, explore the website, and ask any questions about the website.

Testing123.education.mn.gov
Thank you!

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