Smarter Balanced Grade 3-6 (ELA and Math)
CMT Grade 5 (Science) Assessment
Results
2015-16

Beecher Road School Board of Education Meeting September 19, 2016

#### Smarter Balanced Assessment

#### Global measure of student learning:

- Accurately describes student achievement and growth
- Measures students' progress/attainment of knowledge and skills
- Provides an annual snapshot of student achievement
- Aligned to Common Core State Standards
- Administered to students in grades 3-8
- Utilizes computer adaptive testing
  - Includes one math performance task

# Background Information on the Summative Assessment

#### **English Language Arts**

| Areas of Knowledge and Skills Measured | Statement About Student Learning From Which the Assessment was Built   |
|--|--|
| Reading                                | Students can read closely and analytically to comprehend a range of increasingly complex literary and informational texts. |
| Writing                                | Students can produce effective and well-grounded writing for a range of purposes and audiences.                            |
| Listening                              | Students can employ effective speaking and listening skills for a range of purposes and audiences.                         |
| Research/Inquiry                       | Students can engage in research/inquiry to investigate topics, and to analyze, integrate, and present information.         |











Read the text. Then answer the questions.

#### New Homes for Hermit Crabs by Bart King

Hermit crabs are nature's recyclers. Like many other crabs, the hermit crab eats waste. By living on sea scraps, hermit crabs help keep oceans and shores clean. Some hermit crabs hide in reefs or live in shallow waters, while others scuttle on the ocean floor. There are also hermit crabs that spend most of their lives ashore.

Unlike other crabs, the hermit crab has a thin outer shell over its soft tail. This makes the hermit crab easy prey for hungry predators. Hermit crabs stay safe by living in old seashells. A hermit crab is picky; it tries on many shells until it finds one that fits just right. The hermit crab backs into its new home and uses its tail and rear legs to grab onto the shell and carry it. If a predator

10

The author uses a word that means "fake" in the text. Click a word in the paragrap that **best** represents that idea.

These artificial shells have two important purposes. First, people who own hermit crabs can give them to their pets. That keeps real seashells in the ocean, rather that in home aquariums. The Project Shellter shells are also placed in the wild for hermit crabs to find. Lucky hermit crabs can move into these new dream homes at leave those plastic cups behind.



What conclusion can be drawn about the author's point of view about your answer with details from the text.



# Background Information on the Summative Assessment

#### **Mathematics**

| Areas of Knowledge and Skills Measured | Statement About Student Learning From Which the Assessment was Built  |
|--|---|
| Concepts and Procedures                | Students can explain and apply mathematical concepts and interpret and carry out mathematical procedures with precision and fluency.                          |
| Problem Solving                        | Students can solve a range of complex well-posed problems in pure and applied mathematics, making productive use of knowledge and problem-solving strategies. |
| Communicating Reasoning                | Students can clearly and precisely construct viable arguments to support their own reasoning and to critique the reasoning of others.                         |
| Modeling and Data<br>Analysis          | Students can analyze complex, real-world scenarios and can construct and use mathematical models to interpret and solve problems.                             |

## Sample question: Mathematics

Tyler is 8 years old. His sister Olivia is 4 years less than twice his age.

Write a numerical expression for Olivia's age.

#### Achievement Levels

#### Four Achievement Levels:

- Level 1 = **Does not meet** the achievement standard
- Level 2 = Approaching the achievement standard
- Level 3 = Meets the achievement standard
- Level 4 = Exceeds the achievement standard

#### Achievement levels:

- ✓ Specify the knowledge and skills at a certain level
- ✓ Are less precise than scale scores
- ✓ Note: characterizing a student's achievement solely in terms of a level is an over simplification

### The Results: ELA – All Students

| Grade      | Percent Scoring Level 3 and Above |         | Average Vertical Scale Score |         |
|------------|-----------------------------------|---------|------------------------------|---------|
|            | 2014-15                           | 2015-16 | 2014-15                      | 2015-16 |
| 3          | 63.0%                             | 76.2%   | 2470                         | 2482    |
| 4          | 74.4%                             | 76.3%   | 2519                         | 2527    |
| 5          | 75.4%                             | 85.4%   | 2548                         | 2582    |
| 6          | 79.8%                             | 82.4%   | 2594                         | 2597    |
| All Grades | 73.6%                             | 80.1%   | N/A                          | N/A     |

# Scale Scores: English Language Arts

|         | English Language Arts/Literacy |           |           |           |           |  |
|---------|--------------------------------|-----------|-----------|-----------|-----------|--|
|         | Grade 3                        | Grade 4   | Grade 5   | Grade 6   | Grade 7   |  |
| Level 4 | 2490-2623                      | 2533-2663 | 2582-2701 | 2618-2724 | 2649-2745 |  |
| Level 3 | 2432-2489                      | 2473-2532 | 2502-2581 | 2531–2617 | 2552-2648 |  |
| Level 2 | 2367–2431                      | 2416-2472 | 2442-2501 | 2457-2530 | 2479–2551 |  |
| Level 1 | 2114-2366                      | 2131-2415 | 2201–2441 | 2210–2456 | 2258–2478 |  |

### The Results: Mathematics - All Students

| Grade      | Percent Scoring Level 3 and Above |         | Average Vertical Scale Score |         |
|------------|-----------------------------------|---------|------------------------------|---------|
|            | 2014-15                           | 2015-16 | 2014-15                      | 2015-16 |
| 3          | 75.8%                             | 75.2%   | 2474                         | 2482    |
| 4          | 64.4%                             | 65.6%   | 2513                         | 2519    |
| 5          | 44.1%                             | 71.9%   | 2519                         | 2564    |
| 6          | 65.0%                             | 71.4%   | 2596                         | 2589    |
| All Grades | 61.1%                             | 71.2%   | N/A                          | N/A     |

### Scale Scores: Mathematics

|         | Mathematics |           |           |           |           |
|---------|-------------|-----------|-----------|-----------|-----------|
|         | Grade 3     | Grade 4   | Grade 5   | Grade 6   | Grade 7   |
| Level 4 | 2501–2621   | 2549–2659 | 2579–2700 | 2610–2748 | 2635–2778 |
| Level 3 | 2436–2500   | 2485–2548 | 2528-2578 | 2552-2609 | 2567–2634 |
| Level 2 | 2381–2435   | 2411–2484 | 2455–2527 | 2473-2551 | 2484–2566 |
| Level 1 | 2189–2380   | 2204–2410 | 2219–2454 | 2235–2472 | 2250–2483 |

## Smarter Balanced Assessment: Overall results:

|      | 2015  | DRG             | СТ               | 2016  | DRG            | СТ               |
|------|-------|-----------------|------------------|-------|----------------|------------------|
| ELA  | 73.6% | 9 out of<br>21  | 30 out of<br>188 | 80.1% | 5 out of<br>21 | 15 out of<br>188 |
| Math | 61.1% | 12 out of<br>21 | 34 out of<br>188 | 71.2% | 5 out of<br>21 | 17 out of<br>188 |

#### Future data reporting includes:

- Accountability report
- Participation rates
- High Needs students

## Science CMT $\rightarrow$ Grade 5 only:

- Measures core science concepts as well as scientific inquiry learned over several years.
- Topics assessed includes Life, Physical and Earth Science.
- Also assessed: Scientific Inquiry, Literacy and Numeracy.

## Science CMT: Sample question

A student found a piece of metal. What could the student do to quickly determine if the metal might contain iron?

- O Heat the metal
- O Place the metal in water
- O Place the metal near a magnet\*
- Weigh the metal

#### Sample inquiry question:

Some students did an experiment to find out which type of paper holds the most water. They repeated the experiment 3 times, counting the number of squares used. Their data are shown in the table below.

Number of Squares Needed to Absorb 25 Milliliters of Water

| Type of Paper | Test 1     | Test 2     | Test 3     |
|---------------|------------|------------|------------|
| Paper Napkin  | 12 squares | 13 squares | 11 squares |
| Paper Towel   | 6 squares  | 5 squares  | 7 squares  |
| Toilet Paper  | 10 squares | 8 squares  | 6 squares  |
| Tissue        | 10 squares | 8 squares  | 9 squares  |

What should the students do next to answer their question?

- O Show all the numbers in a bar graph
- O Show all the numbers in a pie chart
- O Find the average number of squares for each paper type\*
- O Find the highest number of squares used in Test 1, 2, or 3

### Science CMT results

|           | % at or above goal | Average Scale Score |
|-----------|--------------------|---------------------|
| 2014-2015 | 81%                | 282                 |
| 2015-2016 | 94%                | 307                 |

#### Feedback:

An intermediate teacher shared: "Every year our students are more and more prepared; especially in math."

As told to a 6<sup>th</sup> grade teacher: "...the incoming students from Beecher have really impressed me. Many of them have come in with with very impressive skills in being able to find a central idea and provide evidence to support their claim."

### Next Steps

- To ensure a guaranteed and viable 21<sup>st</sup> century curriculum
- Continued focus on high quality instructional delivery and practices
- Give students appropriate exposure and practice to the tools necessary to demonstrate knowledge
- Use of consultants and shared successful practices for continuous improvement
- Continued use of multiple measures to assess student achievement and growth

## Thank you!