From Teacher To Superintendent
Data-Driven Decisions Simplified
How are you currently using the data from all the education software at your school or district?
The right tool for the right job, every time.
To help students grow, we need to know where they are now.
**Mathematics**

**Norms Percentile**
Achievement for this term, ranked against NWEA 2015 Norms Study.

**82nd Percentile**

**Ohio State Tests**
Projected result for test taken in spring.

**On Track 24**
Projected result for test taken in spring.

**Comparisons**

**Instructional Areas**

- **Geometry** (252)
- **The Real and Complex Number Systems** (253)
- **Statistics and Probability** (254)
- **Operations and Algebraic Thinking** (256)

**Growth Goals**

**FALL 2017**
Customize the growth target for this student by setting a growth goal.

**Past Goals**
There are no previous goals for this student.

**Growth Over Time**

RIT Score: Mathematics
Projected Score: Mathematics
Typical Performance
District Grade Level Mean

Percentile Bands:
- 1-20: Orange
- 21-40: Red
- 41-60: Yellow
- 61-80: Green
- 81-100: Blue

RIT Score Progress:
- Spring 14: 233
- Fall 14 (Gr 6): 238
- Winter 15: 241
- Spring 16: 237
- Fall 16 (Gr 7): 242
- Winter 17: 247
- Fall 17: 243
- Winter 18: 247
COMPARISONS

82ND
Norms Percentile
Achievement for this term, ranked against NWEA 2015 Norms Study

Accelerated
Ohio State Tests
Projected result for test taken in spring

On Track 24
ACT College Readiness
Projected result for test taken in spring
### Geometry

**Congruence, Similarity, Right Triangles, & Trig**


- **Alexis is ready to **DEVELOP** these skills (251-260):**
  - Determines the coordinates of the vertices of a polygon after a dilation or a series of dilations
  - Determines the coordinates of the vertices of a polygon after a reflection or a series of reflections
  - Determines the image of a polygon on a coordinate plane after a reflection or a series of reflections
  - Identifies the center and scale factor used in a dilation represented in the coordinate plane

CCSS.Math.Content.8.G.A.5: Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.

- **Alexis is ready to **DEVELOP** these skills (251-260):**
  - Solves problems involving parallel lines cut by a transversal
  - Solves problems involving parallel lines cut by a transversal


- **Alexis is ready to **DEVELOP** these skills (251-260):**
  - Applies the converse of the Pythagorean Theorem to identify right triangles
RIT Score goal

<table>
<thead>
<tr>
<th>RIT score goal</th>
<th>233</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIT growth</td>
<td>2</td>
</tr>
</tbody>
</table>

RIT Score if Typical Growth is met 233

Typical Growth 2

Percentile if Typical Growth is met 73rd

Typical Score 223

SET GOAL
Skills Navigator Report
Skills Framework

• Over 1,000 essential K-8 building block skills
• Organized into strands of logical instructional sequences
# Computation Base Ten

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>1st</td>
<td>2nd</td>
<td>3rd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| M | M | M | M | P | P | P | P |

Add up to four 2-digit numbers, with regrouping.
Monitor Progress

- Set goals
- Track interventions
MAP Insights Report

• Clear, actionable insights
• Answers a range of key questions including:
  • How are district students doing?
  • Is our growth strong over time?
  • How is growth by grade and subject?
Executive summary highlights

Median student status is 75th percentile and median student growth is 55th percentile

Status is moderately above average while Growth is average

The median status score of all assessments given in Spring of 2015 equaled the 75th percentile. Reading and Language Usage median status percentiles were both above the overall median, while Math was below.

For growth, the median score equaled the 55th percentile, which is average. The Reading median status percentile was above the overall median, while both Language Usage and Math were below.

61% of students should meet state standards in at least one subject

42% of students are on track to meet college readiness in at least one subject

MAP results predict that 61% of students will meet proficiency standards on state summative tests in at least one subject, 65% will likely meet standards in English Language Arts and 55% in math. 23% of students are predicted to meet standards in both subjects. 17% of students are predicted to not meet either standard.

42% are demonstrating achievement that is on-track to meet MAP college readiness benchmarks in at least one subject. 19% are likely on-track in both Reading and Math. 37% are not meeting these benchmarks in either subject.

3-year growth has mixed picture

Median growth ranged from moderately above average to slightly below average

While growth in the most recent year was average, previous growth was mixed. Two years ago, in 2012-13, growth was moderately above average. In 2013-14, growth fell slightly below the national average.

By subject area, growth over the three years has been consistently above average in Reading. Language Usage has seen mixed growth relative to the average. Math has consistently shown growth below average.
Executive summary highlights

Median student status is 75th percentile and median student growth is 55th percentile

Status is moderately above average while Growth is average

The median status and growth percentile within the district and state fall below the 75th percentile. Status and growth were both above the national average.

For growth, the median status and growth percentile within the district and state fall below the 55th percentile. Status and growth were both above the national average.

61% of students are at or above standards.

42% of students are College-ready in at least one subject.

MAP results predict that 42% of students meet standards in at least one subject.

42% are demonstrating readiness benchmarks in both Reading and Math.

3-year growth picture

Median growth ranged from moderately above average to slightly below average

While growth in the most recent year was average, previous growth was mixed. Two years ago, in 2012-13, growth was moderately above average. In 2013-14, growth fell slightly below the national average.

By subject area, growth over the three years has been consistently above average in Reading, Language Usage has seen mixed growth relative to the average, Math has consistently shown growth below average.
Are we proficient & college-ready?

65% and 55% of district students are predicted to score at or above proficient levels on state summative tests in ELA and math, respectively.

Results predict 45% and 35% of students are on-track to be college-ready by graduation in ELA and math, respectively.

For English Language Arts (or ELA), MAP assessment results from Spring 2015 indicate that 65% of district students are likely to meet or exceed minimum standards for proficiency on the state summative tests. For Math, 55% are predicted to meet or exceed the minimum standards for proficiency.

MAP assessment results provide college readiness benchmarks, which predict readiness to successfully perform college-level work. By this measure, 45% of students are on-track for college readiness in ELA, while 35% are on-track in Math.

In grade-level results by subject, it is useful to compare predicted proficiency rates of the district with the predicted rates for the nation at large. In the graph below, the red and green bars show what percent of students nationally are likely to meet proficiency standards according to the MAP benchmark study. The lower the red or green bar, the more difficult the proficiency cut score for that grade.

The figure shows that the predicted proficiency rates for the district are above these national benchmarks for all tested grades in both ELA and Math.
Are we proficient & college-ready?

65% and 55% of district students are predicted to score at or above proficient levels on state summative tests in ELA and math, respectively.

Percent of students projected to meet or exceed standards by grade and subject

<table>
<thead>
<tr>
<th>Grade</th>
<th>ELA Predicted Proficiency</th>
<th>Math Predicted Proficiency</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>72%</td>
<td>52%</td>
</tr>
<tr>
<td>4</td>
<td>69%</td>
<td>50%</td>
</tr>
<tr>
<td>5</td>
<td>65%</td>
<td>54%</td>
</tr>
<tr>
<td>6</td>
<td>60%</td>
<td>58%</td>
</tr>
<tr>
<td>7</td>
<td>52%</td>
<td>49%</td>
</tr>
<tr>
<td>8</td>
<td>58%</td>
<td>59%</td>
</tr>
</tbody>
</table>
Need ways to easily mine the data for deeper insights...

- Is this driven by certain clusters of students?
- How does our growth compare to similar schools?
- Is this driven by certain instructional areas?
Need ways to easily mine the data for deeper insights...

- Is this driven by certain clusters of students?
- How does our growth compare to similar schools?
- Is this driven by certain instructional areas?
MAP Instructional Insights
Why doesn’t NWEA offer item analysis

Problem #1 – A single item never fully captures the difficulty and complexity of a concept.

Concept – Division of Fractions

\( \frac{1}{2} \div \frac{1}{4} = ? \) \hspace{1cm} \( \frac{16}{64} \div \frac{3}{24} = ? \) \hspace{1cm} \( \frac{21}{27} \div \frac{30}{35} = ? \)

a. 4 \hspace{1cm} a. 5 1/3 \hspace{1cm} a. 1 2/3
b. 2 \hspace{1cm} b. 4 \hspace{1cm} b. 1 ½
c. ½ \hspace{1cm} c. 2 \hspace{1cm} c. 1 1/3
d. ¼ \hspace{1cm} d. ½ \hspace{1cm} d. 7/10
Why doesn’t NWEA offer item analysis

Problem #1 – A single item never fully captures the difficulty and complexity of a concept.

Problem #2 – A fixed-form test doesn’t provide enough of a sample of items to make generalizations about student mastery of a concept.

Problem #3 – Each student takes a unique set of items on an adaptive test, thus item analysis can’t inform classroom or grade level decisions.
### Student Performance and Range of Difficulty by Topic

<table>
<thead>
<tr>
<th>Instructional Area</th>
<th>Sub-instructional area</th>
<th>Topic</th>
<th>Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geometry</td>
<td>Reason with Shapes, Attributes, &amp; Coordinate Plane</td>
<td>Identification and Classification of 3-D Shapes</td>
<td><strong>55%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fractions: Represent/Model</td>
<td><strong>53%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spatial Concepts and Symmetry</td>
<td><strong>48%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identification and Classification of 2-D Shapes</td>
<td><strong>63%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Points, Lines, Segments, Rays, and Angles</td>
<td><strong>71%</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Coordinate Geometry</td>
<td><strong>33%</strong></td>
</tr>
<tr>
<td>Instructional Area</td>
<td>Sub-instructional Area</td>
<td>Learning Statement</td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>------------------------</td>
<td>--------------------</td>
<td></td>
</tr>
<tr>
<td>Geometry</td>
<td>Reason with Shapes, Attributes, &amp; Coordinate Plane</td>
<td>Determines the number of lines of symmetry in 2-D figures</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies 2-D figures which have line symmetry</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies acute or obtuse angles</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies and names cubes, cones, cylinders, and spheres</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies and names nonbasic shapes, such as trapezoids, hexagons, etc.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies and names the 3-D shape of real-world objects</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies and names triangles, squares, rectangles, and circles</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies shapes that are divided into equal parts</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifies shapes that are divided into fourths</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring</td>
<td>Median</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Spring 2016</td>
<td>Fall 2015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12,363</td>
<td>8,910</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5,936</td>
<td>2,481</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8,910</td>
<td>10,216</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4,479</td>
<td>4,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6,308</td>
<td>4,400</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,517</td>
<td>2,680</td>
</tr>
</tbody>
</table>
Uses

Support instructional decisions
  • Compact or extend?
  • Re-teach?

Review instructional area performance
  • Instructional material coverage?
  • Pacing?
  • Teacher content knowledge?
OECD Test for Schools (based on PISA)
“We receive more actionable data from the OECD report than we get from all the other assessments, state test data, ACT, SAT, AP, and IB put together!”

J. Alvin Wilbanks, Superintendent
Gwinnett County Public Schools
OECD Test for Schools

• International Comparisons in math, science and reading

• Survey Information cross tabbed with performance, disciplinary climate, teacher/student relationships, reading habits, and profiles and visibility into the student’s self ratings in those areas vs. performance

• Actionable data for the difficult questions
  • “What happened?”
  • “Fragile that it is, how can we change it?”
  • “Where do we start with our systems change, and how do we go about it?”
OECD Test for Schools

- Individual school results

![Table: Your school's mean performance in reading, mathematics and science](image)
OECD Test for Schools

- Global comparison
OECD Test for Schools

- School comparison
OECD Test for Schools

- Information to drive improvement

Figure 3.8 - Students’ instrumental motivation in mathematics at your school and in the United States in PISA 2012

- Making an effort in mathematics is worth it because it will help me in the work that I want to do later
- Learning mathematics is important because it will help me with the subjects that I want to study further on in school
- Mathematics is an important subject for me because I need it for what I want to study later on
- I will learn many things in mathematics that will help me get a job

Percent of students who agree or strongly agree with the statement.

United States (darker tone when statistically different from Your School)
OECD Test for Schools

- Information to drive improvement

**Figure 3.9** - Students’ self-efficacy in mathematics at your school and in the United States in PISA 2012

<table>
<thead>
<tr>
<th>Activity</th>
<th>Your School</th>
<th>United States (darker tone when statistically different from Your School)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using a train timetable to work out how long it would take to get from one place to another</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculating how much cheaper a TV would be after a 30% discount</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculating how many square meters of tiles you need to cover a floor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding graphs presented in newspapers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solving an equation like $2x+15 = 17$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finding the actual distance between two places on a map with a $1:10,000$ scale</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solving an equation like $2(x+3)=(x+3)(x-3)$</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calculating the gas mileage of a car</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
OECD Test for Schools

Figure 3.4 - Teacher-student relations at your school and among the highest- and lowest-performing students in the United States in PISA 2012

- Your School
- ▲▲ Average percentage of the 10% highest-performing students in mathematics (darker tone when statistically different from Your School)
- ▼▼ Average percentage of the 10% lowest-performing students in mathematics (darker tone when statistically different from Your School)

<table>
<thead>
<tr>
<th>Statement</th>
<th>Your School</th>
<th>▲▲</th>
<th>▼▼</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students get along well with most teachers</td>
<td></td>
<td>▼▼</td>
<td>▲</td>
</tr>
<tr>
<td>Most teachers are interested in students' well-being</td>
<td></td>
<td>▼▼</td>
<td>▲</td>
</tr>
<tr>
<td>Most of my teachers really listen to what I have to say</td>
<td></td>
<td>▼▼</td>
<td>▲</td>
</tr>
<tr>
<td>If I need extra help, I will receive it from my teachers</td>
<td></td>
<td>▼▼</td>
<td>▲</td>
</tr>
<tr>
<td>Most of my teachers treat me fairly</td>
<td></td>
<td>▼▼</td>
<td>▲</td>
</tr>
</tbody>
</table>

Percent of students who agree or strongly agree with the statement
## OECD Test for Schools

A description of the six reader profiles shown in Figure 3.6:

<table>
<thead>
<tr>
<th>Wide</th>
<th>Deep</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Surface</strong></td>
<td><strong>Deep and wide readers</strong></td>
</tr>
<tr>
<td>Surface and wide readers</td>
<td>These students have low levels of awareness about effective strategies to understand, summarize and remember information, but they read a wide variety of materials regularly, including fiction and non-fiction books. In the United States, 7% of 15-year-old students are surface and wide readers.</td>
</tr>
<tr>
<td>Deep and wide readers</td>
<td>These students are those who have high levels of awareness about effective learning strategies and who also read all sorts of materials, including fiction and non-fiction books for enjoyment. In the United States, 19% of students are deep and wide readers.</td>
</tr>
<tr>
<td><strong>Surface and narrow readers</strong></td>
<td><strong>Deep and narrow readers</strong></td>
</tr>
<tr>
<td>Narrow</td>
<td>Students with this reader profile have low levels of awareness about effective learning strategies and their reading habits are narrow in the sense that they do not read a wide variety of materials, but they do read some materials regularly for enjoyment. This profile accounts for 6% of students in the United States.</td>
</tr>
<tr>
<td>Deep and narrow readers</td>
<td>Students in this group also have high levels of awareness about effective learning strategies, but their reading habits are more narrow than those of deep and wide readers. This reader profile accounts for 11% of students.</td>
</tr>
<tr>
<td><strong>Surface and highly restricted readers</strong></td>
<td><strong>Deep and highly restricted readers</strong></td>
</tr>
<tr>
<td>Highly restricted</td>
<td>These students are aware of effective learning strategies, but they do not regularly read any printed material for enjoyment. With 37% of students being deep and highly restricted readers, this profile accounts for the largest number of students in the United States.</td>
</tr>
</tbody>
</table>

| **Surface and highly restricted readers** | **Deep and highly restricted readers**       |
| Surface and highly restricted readers | These students in this group have low levels of awareness about effective learning strategies and they spend little time reading any type of printed material for enjoyment. In the United States, 20% of students are surface and highly restricted readers. |
OECD Test for Schools

Figure 3.7: How well different types of readers read at your school, in your country and internationally in PISA 2009

[Graphs showing reading performance by type of reader for various countries (United States, United Kingdom, Canada), with scores on the PISA reading scale.]
OECD Test for Schools

Figure 3.7 - How well different types of readers read at your school, in your country and internationally in PISA 2009

- Your School
- United States

Mean score on the PISA reading scale

Level 6
Level 5
Level 4
Level 3
Level 2
Level 1
Below Level 1

Deep and wide readers
Deep and highly restricted readers
Surface and wide readers
Surface and narrow readers
Surface and highly restricted readers

Deep and wide readers
Deep and highly restricted readers
Surface and wide readers
Surface and narrow readers
Surface and highly restricted readers
OECD Test for Schools

Figure 2.8: How proficient are students at your school in mathematics compared with students in the United States in PISA 2009

<table>
<thead>
<tr>
<th>Level</th>
<th>Below Level 1</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
<th>Level 5</th>
<th>Level 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your School</td>
<td>3%</td>
<td>9%</td>
<td>24%</td>
<td>25%</td>
<td>23%</td>
<td>17%</td>
<td>2%</td>
</tr>
<tr>
<td>United States</td>
<td>8%</td>
<td>7%</td>
<td>15%</td>
<td>19%</td>
<td>32%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Note: Striped bars are an indication that the distribution of students in proficiency levels at your school is statistically significantly different from the distribution of students in the United States. Solid bars are an indication that the distribution of students in proficiency levels at your school is not statistically significantly different from the distribution of students in the United States.

Source: OECD.
QUESTIONS?