ACT ASPIRE

Jim Gleason

College Readiness - Math

- ACT Benchmark that students have 50% chance of obtaining a B or higher and 75% chance of obtaining a C or higher is credit-bearing first-year college courses.
  - 22
- Current UA placements from ACT

0-17	Math 005
18-23	Math 100 or 110
24-28	Math 112
29	Math 115
30-36	Math 121 or 125

What is the ACT?

- Designed to measure college readiness
- The ACT Mathematics Test is a 60-question, 60-minute test designed to assess the mathematical skills students have typically acquired in courses taken up to the beginning of grade 12.

How are the ASPIRE and the ACT related?

- Based on ACT College and Career Readiness Standards
    - http://www.act.org/standard/planact/math/
- Designed to measure a trajectory

What is the purpose of standardized testing?

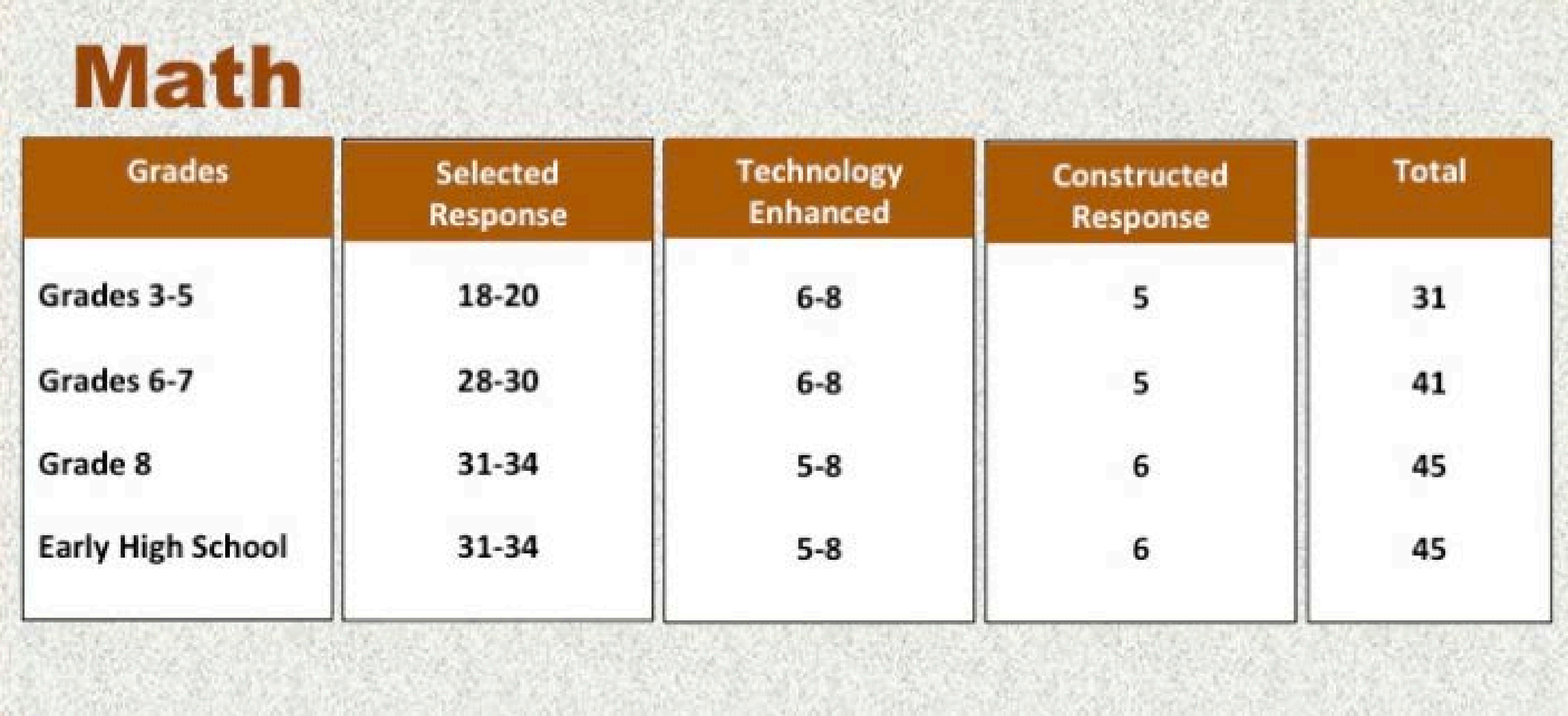
- Creates way to compare students/groups
- Provides feedback from outside perspective
- Two main categories
    - Norm Referenced
    - Criterion Referenced

What do scores on standardized tests mean?

- What does readiness mean?
- Growth
- Predictions
- Measurement error

How does the ASPIRE relate to the Alabama CCRS?

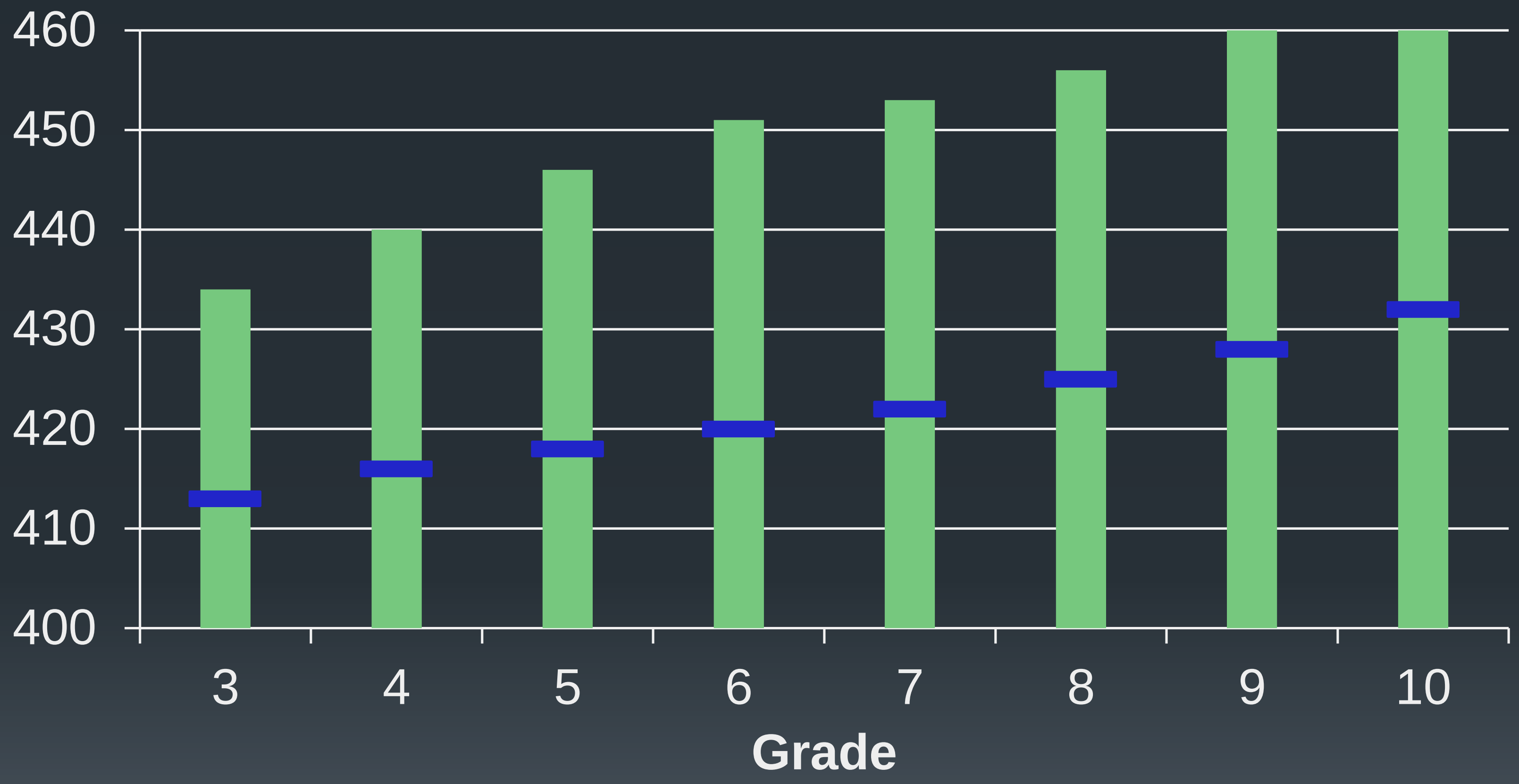
What does the ASPIRE look like?



Math

Grades	Selected Response	Technology Enhanced	Constructed Response	Total
Grades 3-5	18-20	6-8	5	31
Grades 6-7	28-30	6-8	5	41
Grade 8	31-34	5-8	6	45
Early High School	31-34	5-8	6	45

ASPIRE Scale Scores



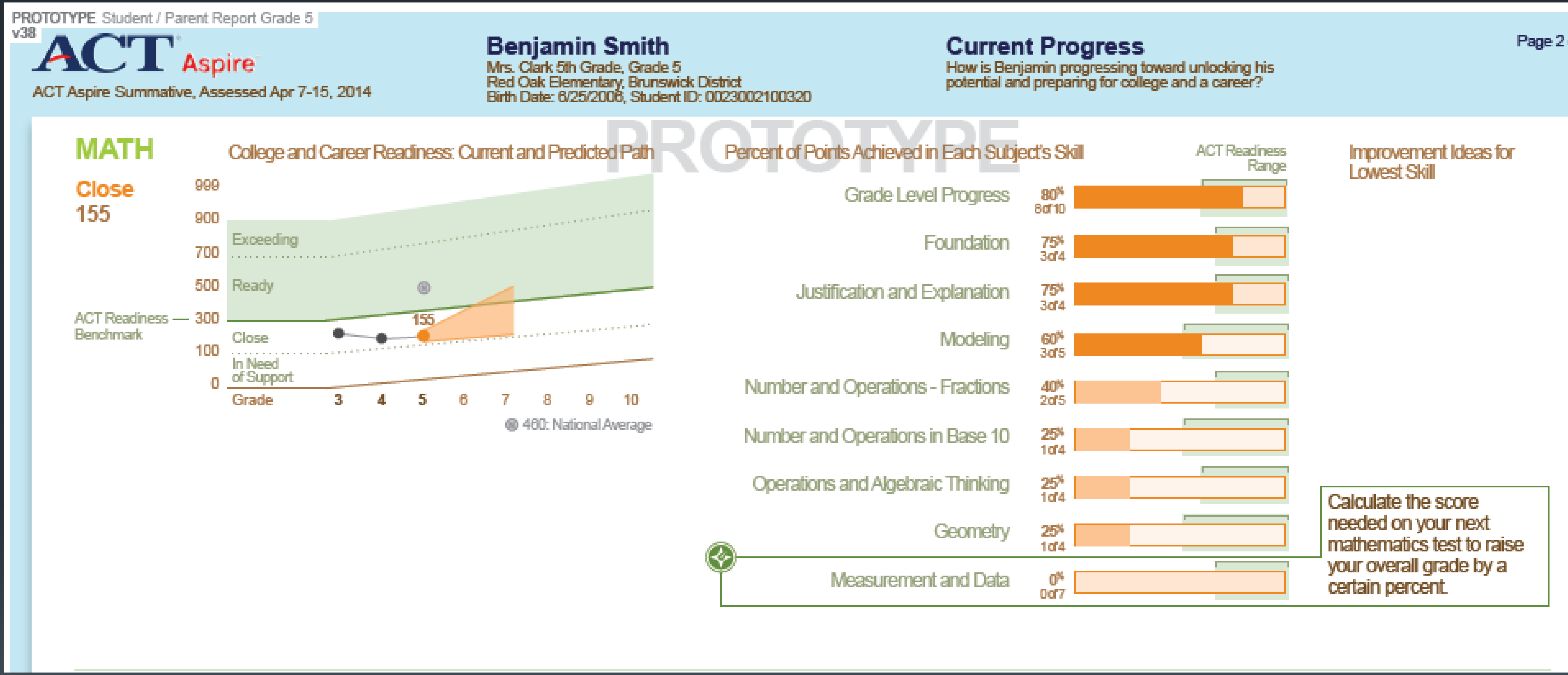
What do the ASPIRE reports look like?

- We will only look at the math portion.
- Details can be found at

http://act.org/aap/alabama/aspire.html

http://www.discoveractaspire.org/

Grade 5 Individual Sample



PROTOTYPE Student / Parent Report Grade 5
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Benjamin Smith
Mrs. Clark 5th Grade, Grade 5
Red Oak Elementary, Brunswick District
Birth Date: 6/25/2006, Student ID: 0023002100320

Current Progress
How is Benjamin progressing toward unlocking his potential and preparing for college and a career?

Page 2

PROTOTYPE

MATH

Close
155

College and Career Readiness: Current and Predicted Path

999
900
700
500
300
100
0
Exceeding
Ready
Close
In Need of Support
ACT Readiness Benchmark
155
Grade
3
4
5
6
7
8
9
10
460: National Average

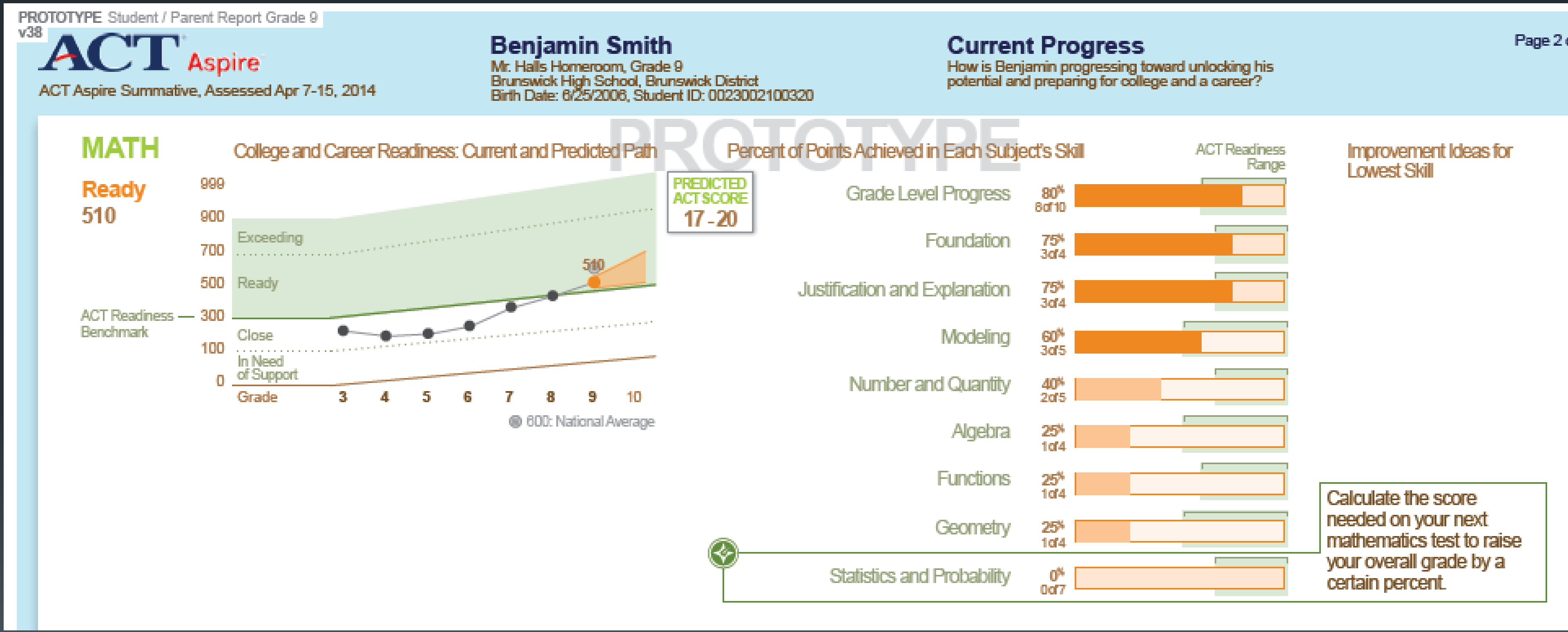
Percent of Points Achieved in Each Subject's Skill

		ACT Readiness Range
Grade Level Progress	80% 8 of 10	
Foundation	75% 3 of 4	
Justification and Explanation	75% 3 of 4	
Modeling	60% 3 of 5	
Number and Operations - Fractions	40% 2 of 5	
Number and Operations in Base 10	25% 1 of 4	
Operations and Algebraic Thinking	25% 1 of 4	
Geometry	25% 1 of 4	
Measurement and Data	0% 0 of 7	

Improvement Ideas for Lowest Skill

Calculate the score needed on your next mathematics test to raise your overall grade by a certain percent.

Grade 9 Individual Sample



PROTOTYPE Student / Parent Report Grade 9
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Benjamin Smith
Mr. Halls Homeroom, Grade 9
Brunswick High School, Brunswick District
Birth Date: 6/25/2006, Student ID: 0023002100320

Current Progress
How is Benjamin progressing toward unlocking his potential and preparing for college and a career?

Page 2

PROTOTYPE

MATH

Ready
510

College and Career Readiness: Current and Predicted Path

999
900
700
500
300
100
0
Exceeding
Ready
Close
In Need of Support
ACT Readiness Benchmark
510
Grade
3
4
5
6
7
8
9
10
600: National Average

PREDICTED ACT SCORE
17 - 20

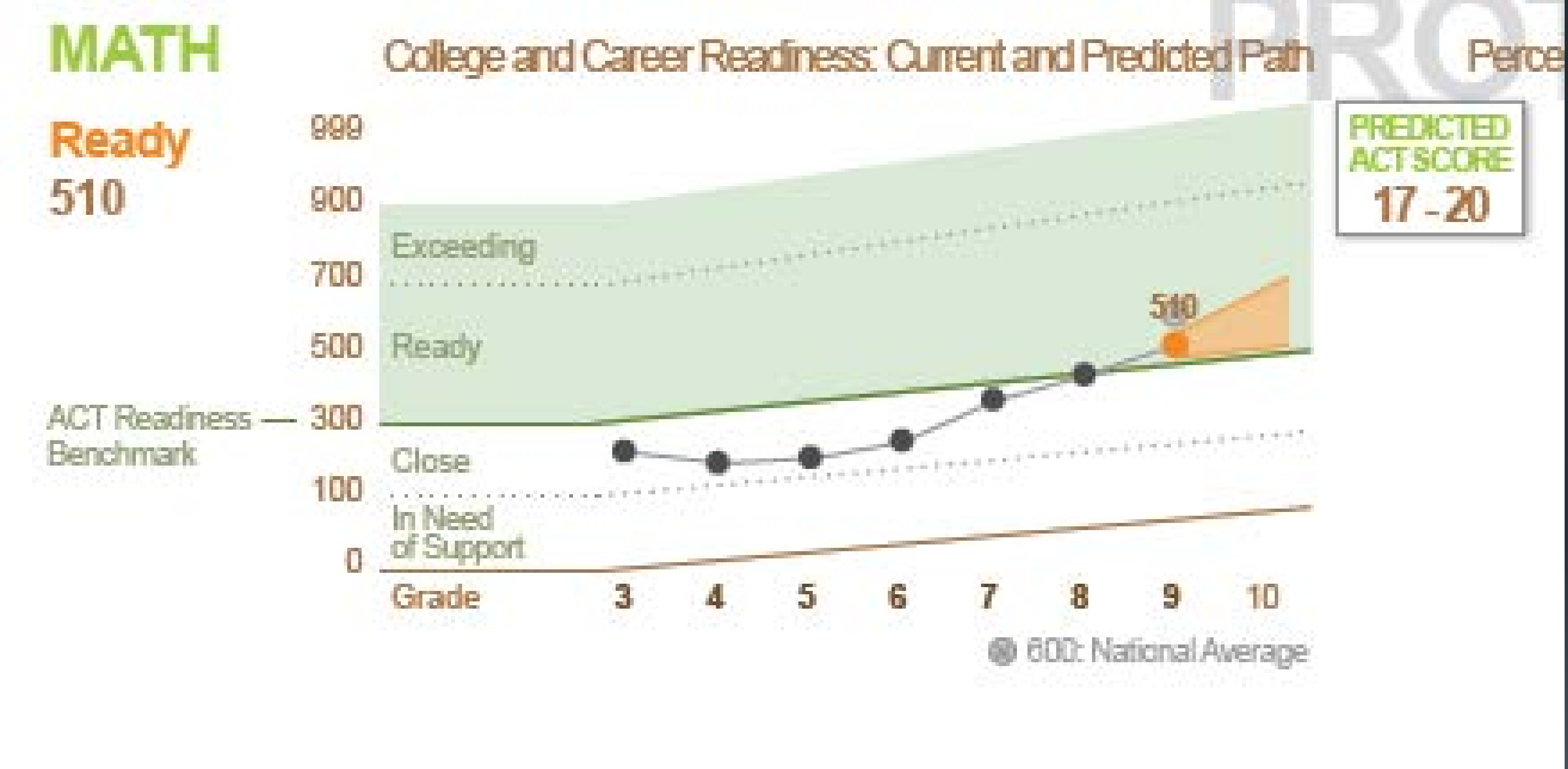
Percent of Points Achieved in Each Subject's Skill

Grade Level Progress	80%	8 of 10
Foundation	75%	3 of 4
Justification and Explanation	75%	3 of 4
Modeling	60%	3 of 5
Number and Quantity	40%	2 of 5
Algebra	25%	1 of 4
Functions	25%	1 of 4
Geometry	25%	1 of 4
Statistics and Probability	0%	0 of 7

ACT Readiness Range

Improvement Ideas for Lowest Skill

Calculate the score needed on your next mathematics test to raise your overall grade by a certain percent.


MATH
Ready
510
College and Career Readiness: Current and Predicted Path
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PRO
PREDICTED ACT SCORE
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999
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700
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300
100
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In Need of Support
ACT Readiness Benchmark
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Grade
3
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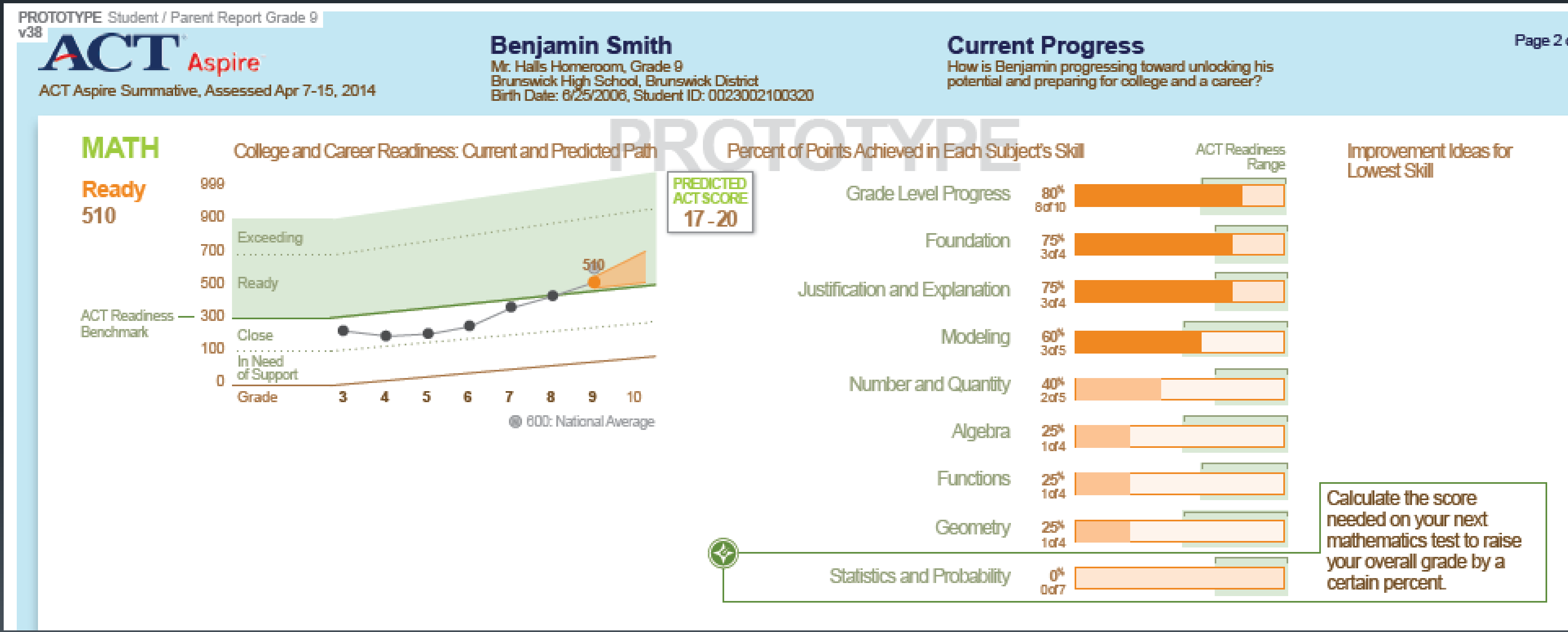
600: National Average

Grade 9 Individual Sample



PROTOTYPE Student / Parent Report Grade 9 v38

ACT Aspire

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Benjamin Smith

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Brunswick High School, Brunswick District
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Page 2

PROTOTYPE

MATH

Ready
510

College and Career Readiness: Current and Predicted Path

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ACT Readiness Benchmark
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PREDICTED ACT SCORE
17 - 20

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Improvement Ideas for Lowest Skill

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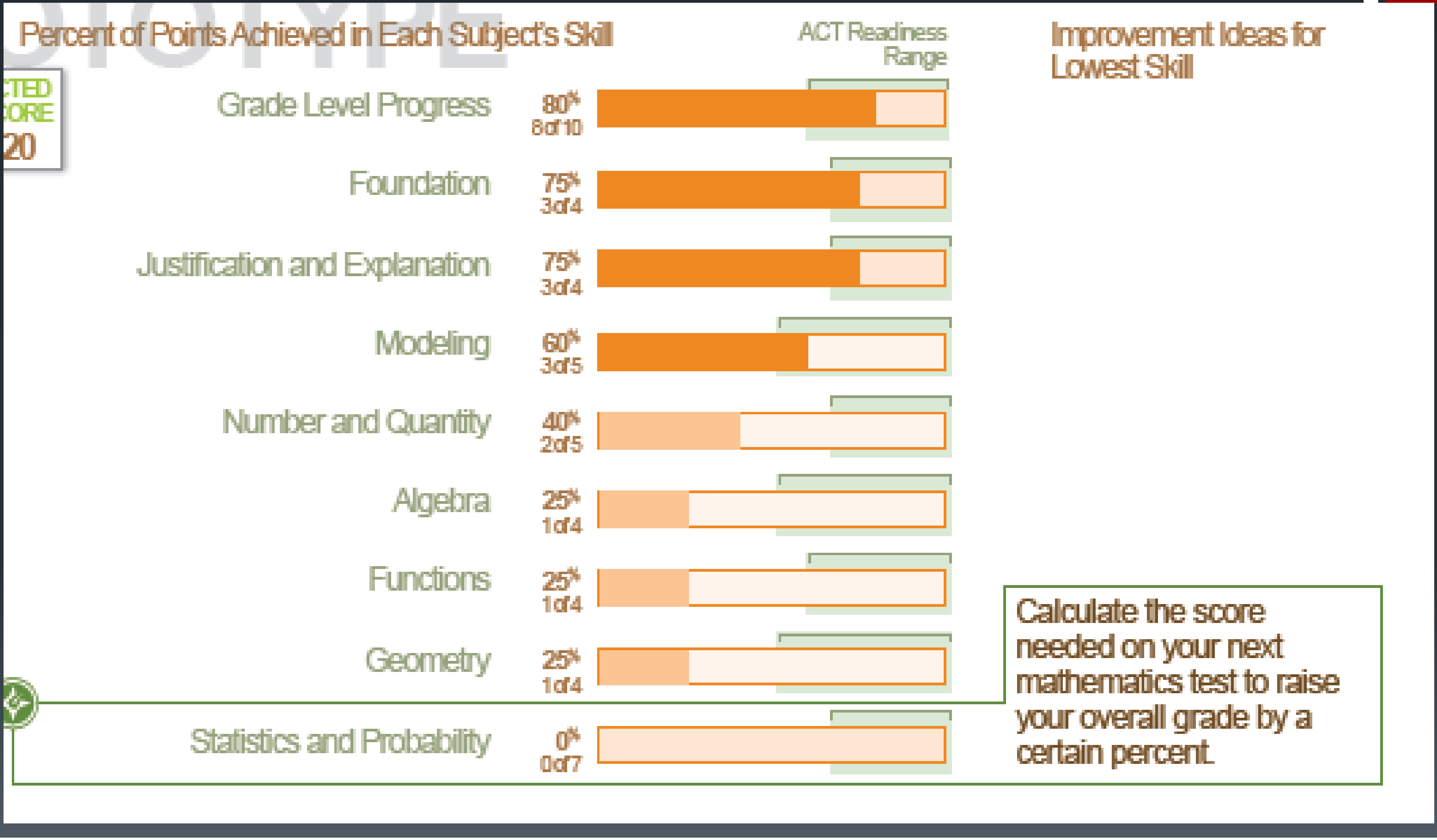

Percent of Points Achieved in Each Subject's Skill

ACT Readiness Range

Improvement Ideas for Lowest Skill

CTED
ORE
20

Skill	Percent	Points
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Geometry	25%	1 of 4
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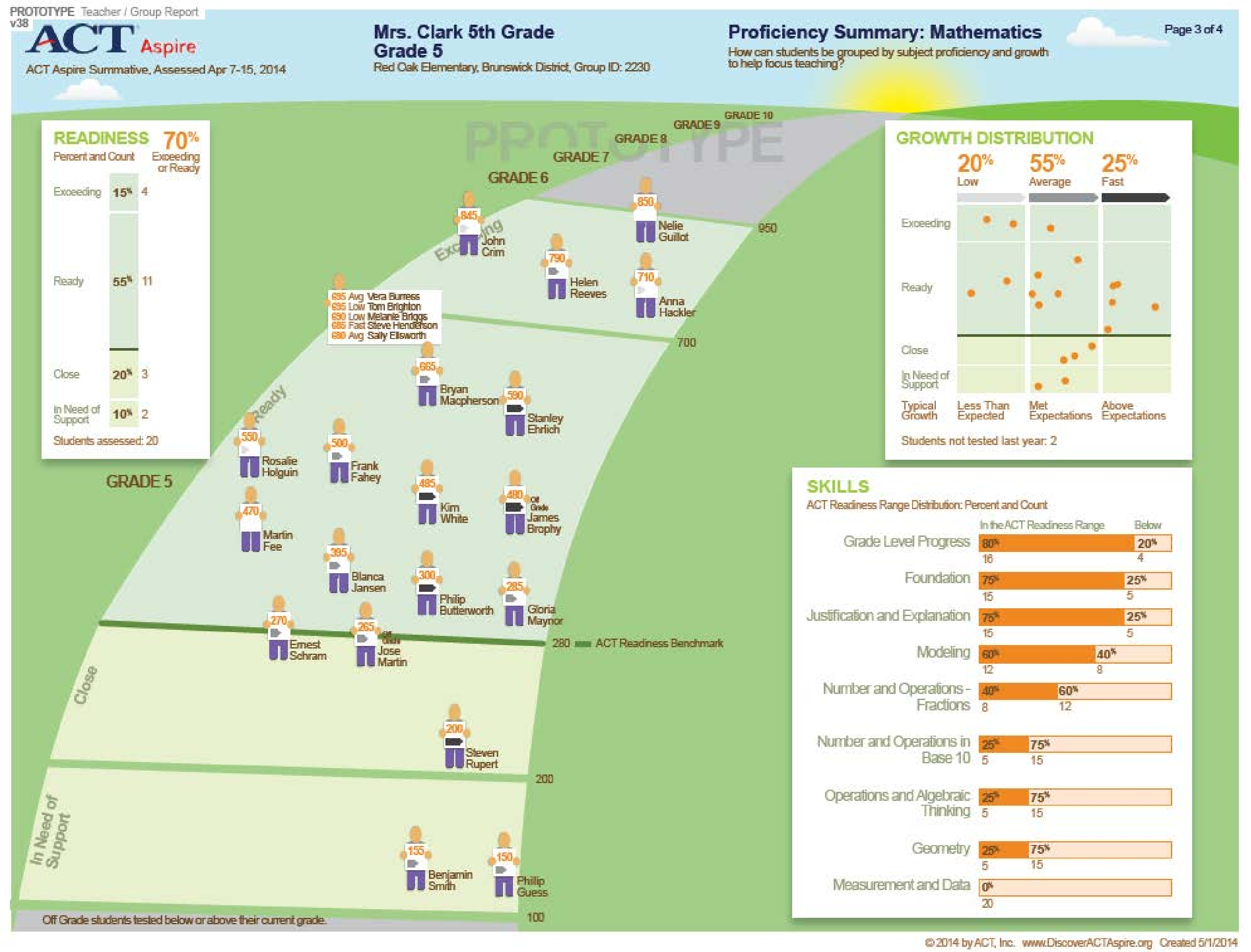
Calculate the score needed on your next mathematics test to raise your overall grade by a certain percent.

Grade 5 Class Sample



PROTOTYPE Teacher / Group Report
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Mrs. Clark 5th Grade
Grade 5
Red Oak Elementary, Brunswick District, Group ID: 2230

Proficiency Summary: Mathematics

How can students be grouped by subject proficiency and growth to help focus teaching?

Page 3 of 4

READINESS 70% Exceeding or Ready

Percent and Count

Exceeding	15%	4
Ready	55%	11
Close	20%	3
In Need of Support	10%	2

Students assessed: 20

PROTOTYPE
GRADE 5
GRADE 6
GRADE 7
GRADE 8
GRADE 9
GRADE 10
Exceeding
Ready
Close
In Need of Support
845 John Crim
850 Nelie Guillot
790 Helen Reeves
710 Anna Hackler
695 Avg Vera Burress
695 Low Tom Brighton
690 Low Melanie Briggs
685 Fast Steve Henderson
680 Avg Sally Ellsworth
665 Bryan Macpherson
590 Stanley Ehrlich
550 Rosalie Holguin
500 Frank Fahey
485 Kim White
480 Off Grade James Brophy
470 Martin Fee
395 Blanca Jansen
300 Philip Butterworth
285 Gloria Maynor
270 Ernest Schram
265 Off Grade Jose Martin
200 Steven Rupert
155 Benjamin Smith
150 Phillip Guess
950
700
280 ACT Readiness Benchmark
200
100

Off Grade students tested below or above their current grade.

GROWTH DISTRIBUTION

20% Low	55% Average	25% Fast
Less Than Expected	Met Expectations	Above Expectations

Exceeding
Ready
Close
In Need of Support
Typical Growth

Students not tested last year: 2

SKILLS

ACT Readiness Range Distribution: Percent and Count

	In the ACT Readiness Range	Below
Grade Level Progress	80% 16	20% 4
Foundation	75% 15	25% 5
Justification and Explanation	75% 15	25% 5
Modeling	60% 12	40% 8
Number and Operations - Fractions	40% 8	60% 12
Number and Operations in Base 10	25% 5	75% 15
Operations and Algebraic Thinking	25% 5	75% 15
Geometry	25% 5	75% 15
Measurement and Data	0% 20	

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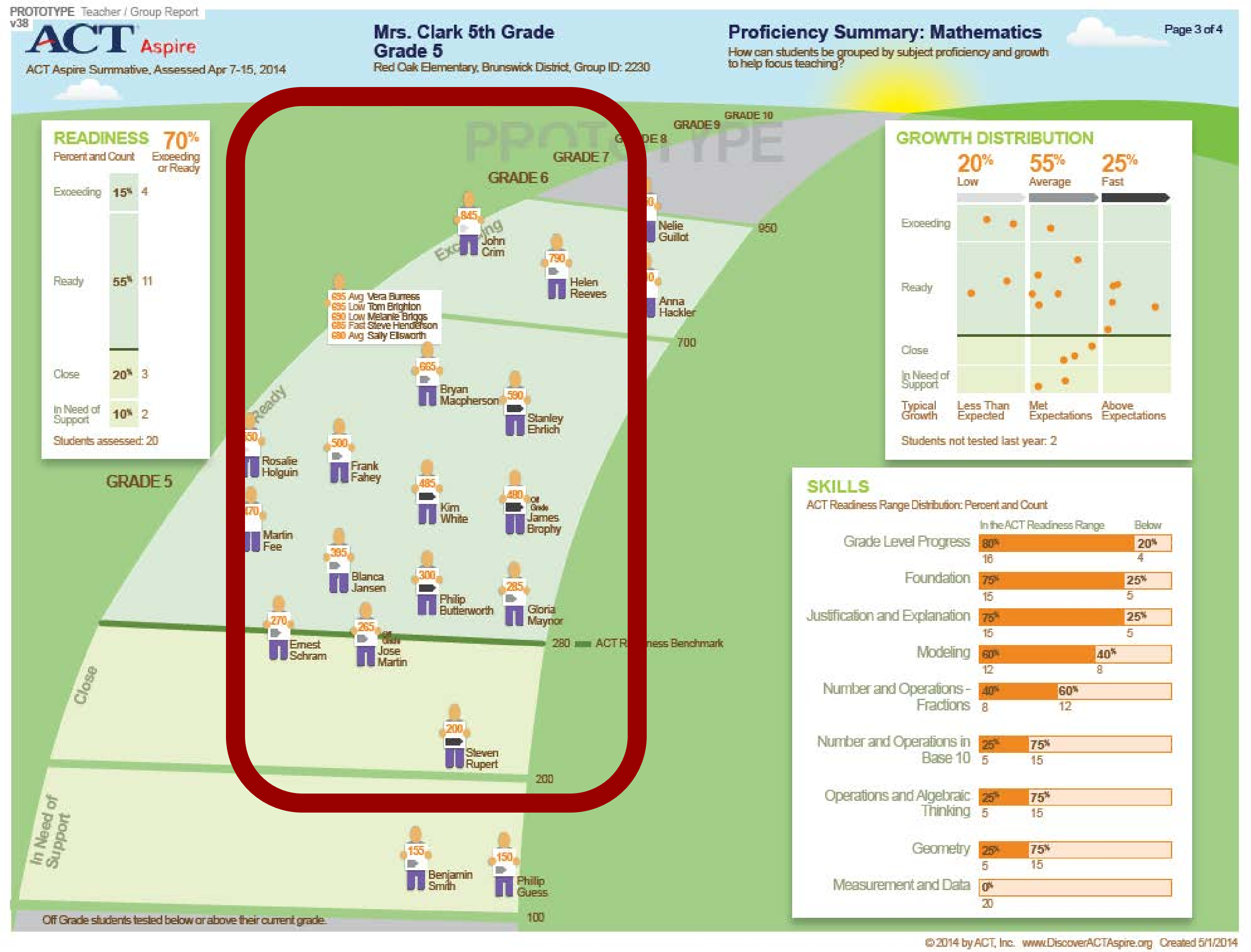
Grade 5 Class Sample



PROTOTYPE Teacher / Group Report
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Mrs. Clark 5th Grade
Grade 5
Red Oak Elementary, Brunswick District, Group ID: 2230

Proficiency Summary: Mathematics
How can students be grouped by subject proficiency and growth to help focus teaching?

Page 3 of 4

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Students assessed: 20

GRADE 5
GRADE 6
GRADE 7
GRADE 8
GRADE 9
GRADE 10
PROTOTYPE
Exceeding
Ready
Close
In Need of Support
845 John Crim
790 Helen Reeves
Nelie Guillot
Anna Hackler
950
700
695 Avg Vera Burress
695 Low Tom Brighton
690 Low Melanie Briggs
685 Fast Steve Henderson
680 Avg Sally Ellsworth
665 Bryan Macpherson
590 Stanley Ehrlich
Rosalie Holguin
500 Frank Fahey
485 Kim White
480 Off Grade James Brophy
470 Martin Fee
395 Blanca Jansen
300 Philip Butterworth
285 Gloria Maynor
270 Ernest Schram
265 Off Grade Jose Martin
280 ACT Readiness Benchmark
200 Steven Rupert
200
155 Benjamin Smith
150 Phillip Guess
100

Off Grade students tested below or above their current grade.

GROWTH DISTRIBUTION

20% Low
55% Average
25% Fast
Exceeding
Ready
Close
In Need of Support
Typical Growth
Less Than Expected
Met Expectations
Above Expectations

Students not tested last year: 2

SKILLS
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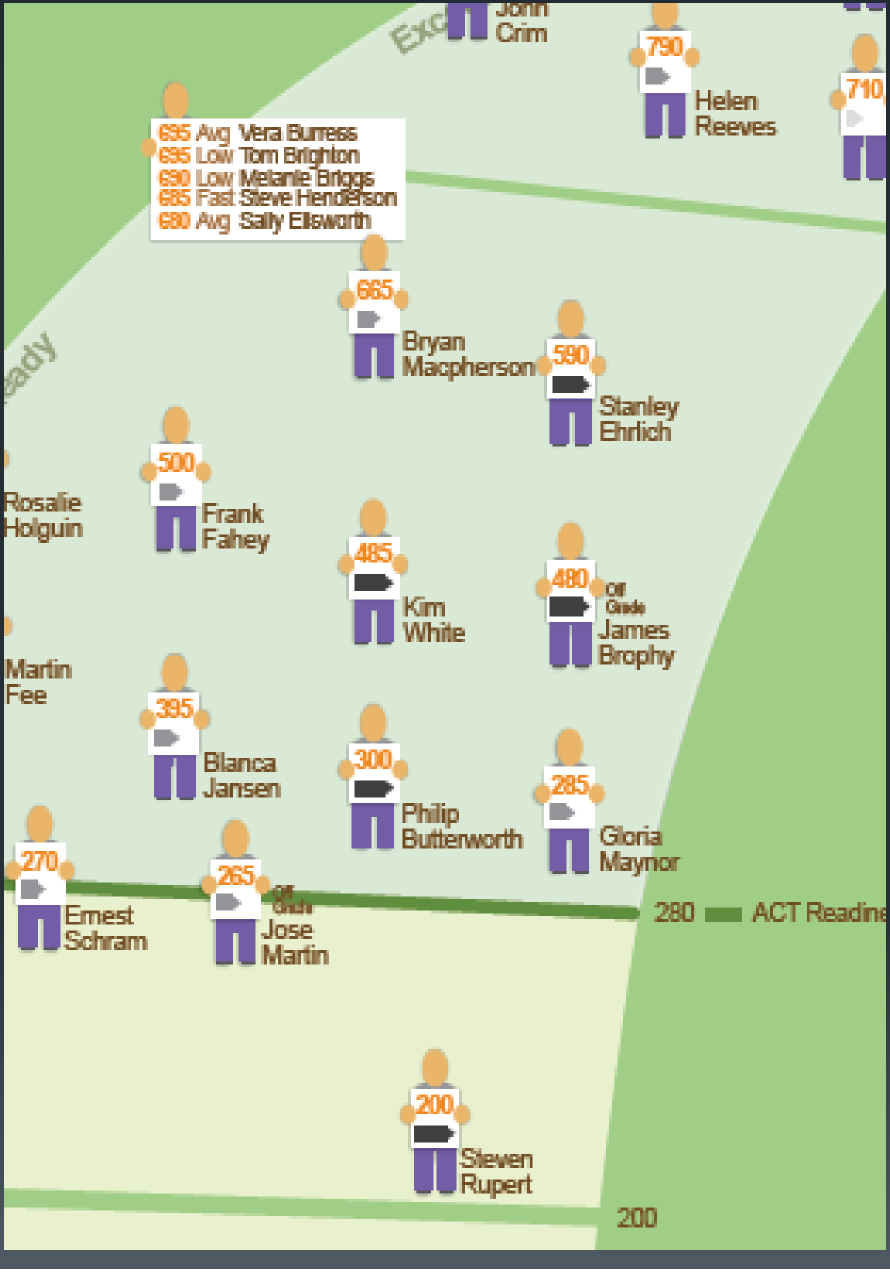
John
Crim
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790
Helen
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710
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695 Low Tom Brighton
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665
Bryan
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ACT Readine
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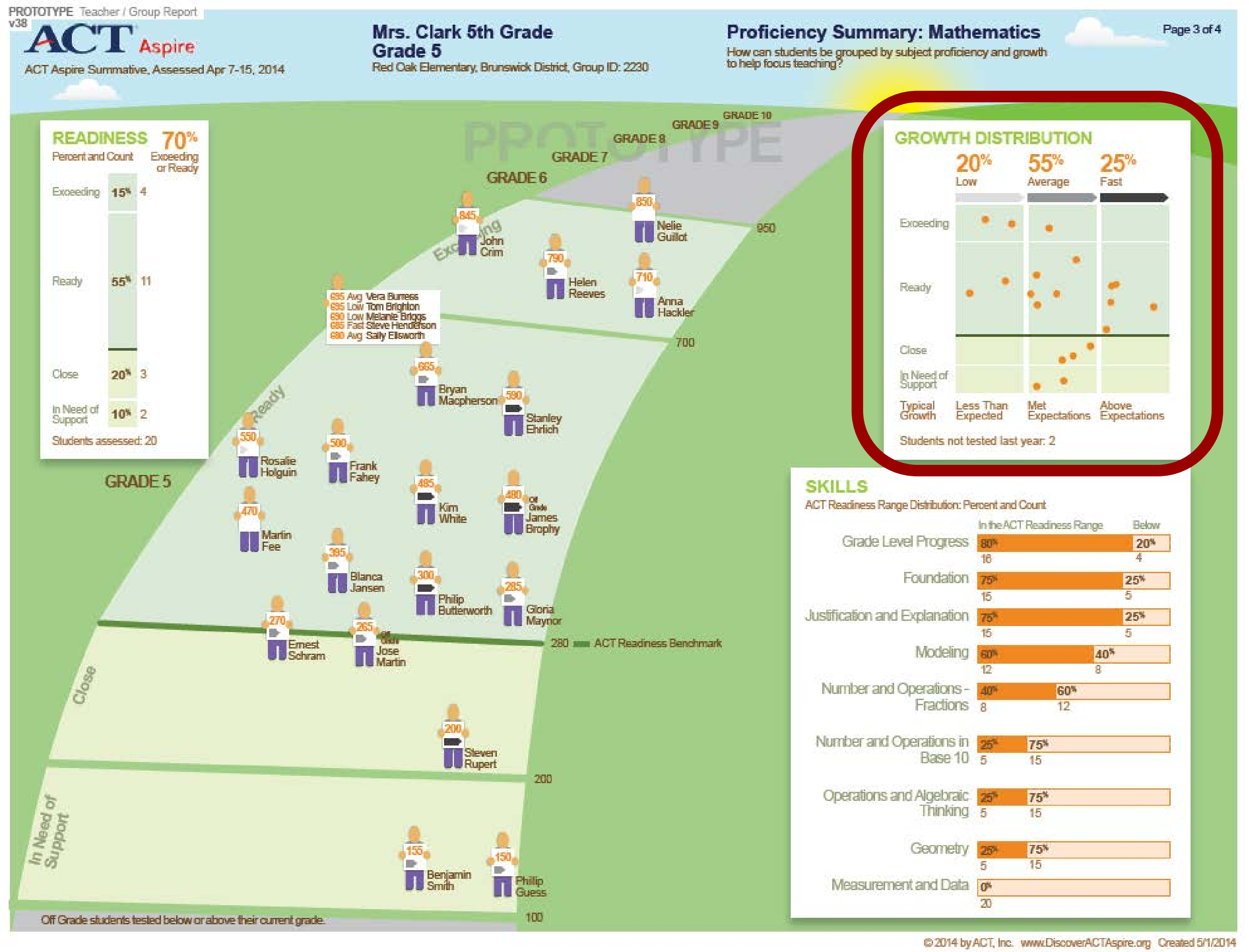
Grade 5 Class Sample



PROTOTYPE Teacher / Group Report
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Mrs. Clark 5th Grade
Grade 5
Red Oak Elementary, Brunswick District, Group ID: 2230

Proficiency Summary: Mathematics
How can students be grouped by subject proficiency and growth to help focus teaching?

Page 3 of 4

READINESS 70%

Percent and Count — 70% Exceeding or Ready

Exceeding	15%	4
Ready	55%	11
Close	20%	3
In Need of Support	10%	2

Students assessed: 20

PROTOTYPE
GRADE 5
GRADE 6
GRADE 7
GRADE 8
GRADE 9
GRADE 10
Exceeding
Ready
Close
In Need of Support
950
700
280 ACT Readiness Benchmark
200
100
845 John Crim
850 Nelie Guillot
790 Helen Reeves
710 Anna Hackler
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155 Benjamin Smith
150 Philip Guess

Off Grade students tested below or above their current grade.

GROWTH DISTRIBUTION

20%	55%	25%
Low	Average	Fast

Exceeding
Ready
Close
In Need of Support
Typical Growth
Less Than Expected
Met Expectations
Above Expectations

Students not tested last year: 2

SKILLS

ACT Readiness Range Distribution: Percent and Count

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Modeling	60%	12	40%	8
Number and Operations - Fractions	40%	8	60%	12
Number and Operations in Base 10	25%	5	75%	15
Operations and Algebraic Thinking	25%	5	75%	15
Geometry	25%	5	75%	15
Measurement and Data	0%			20

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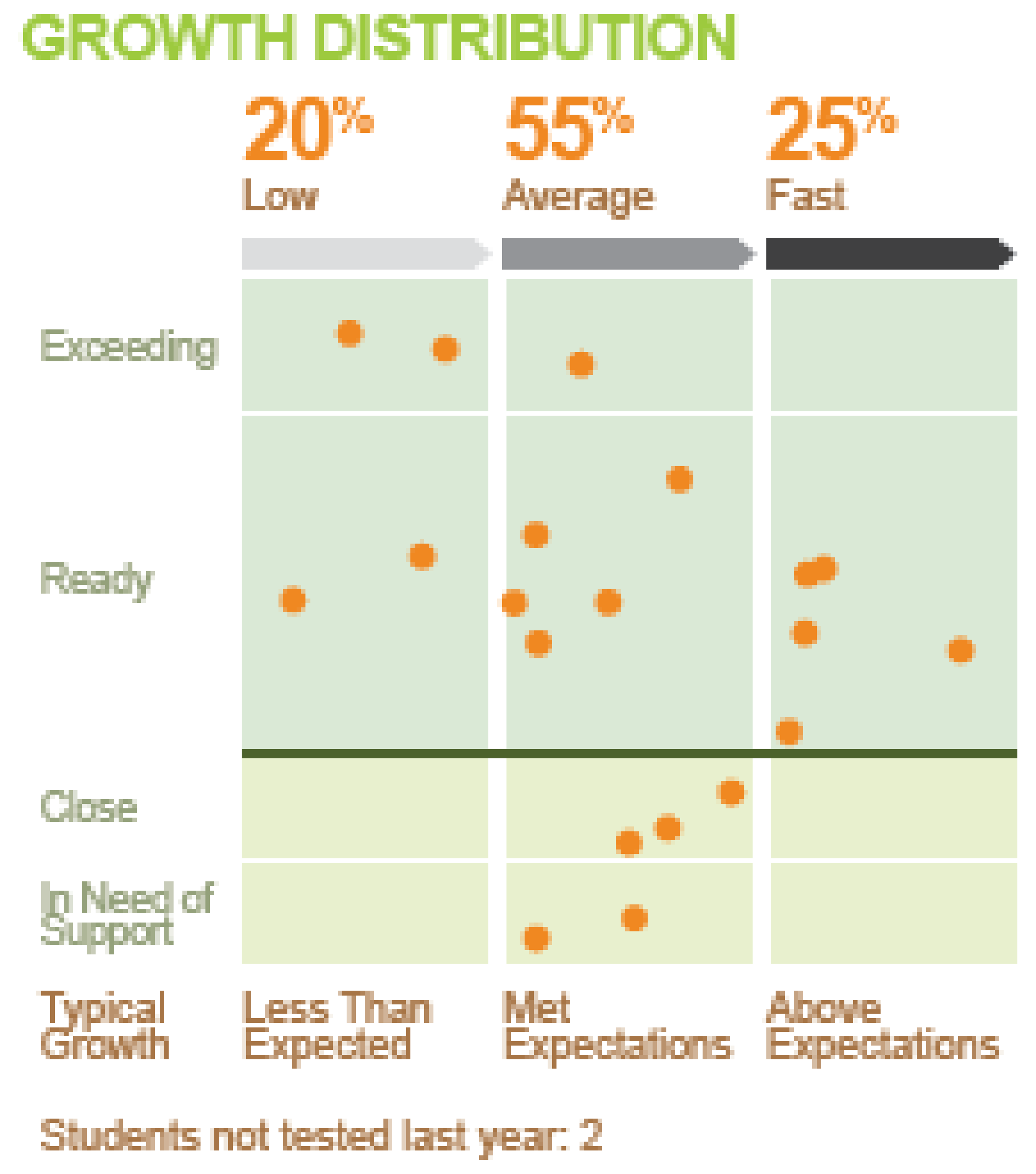
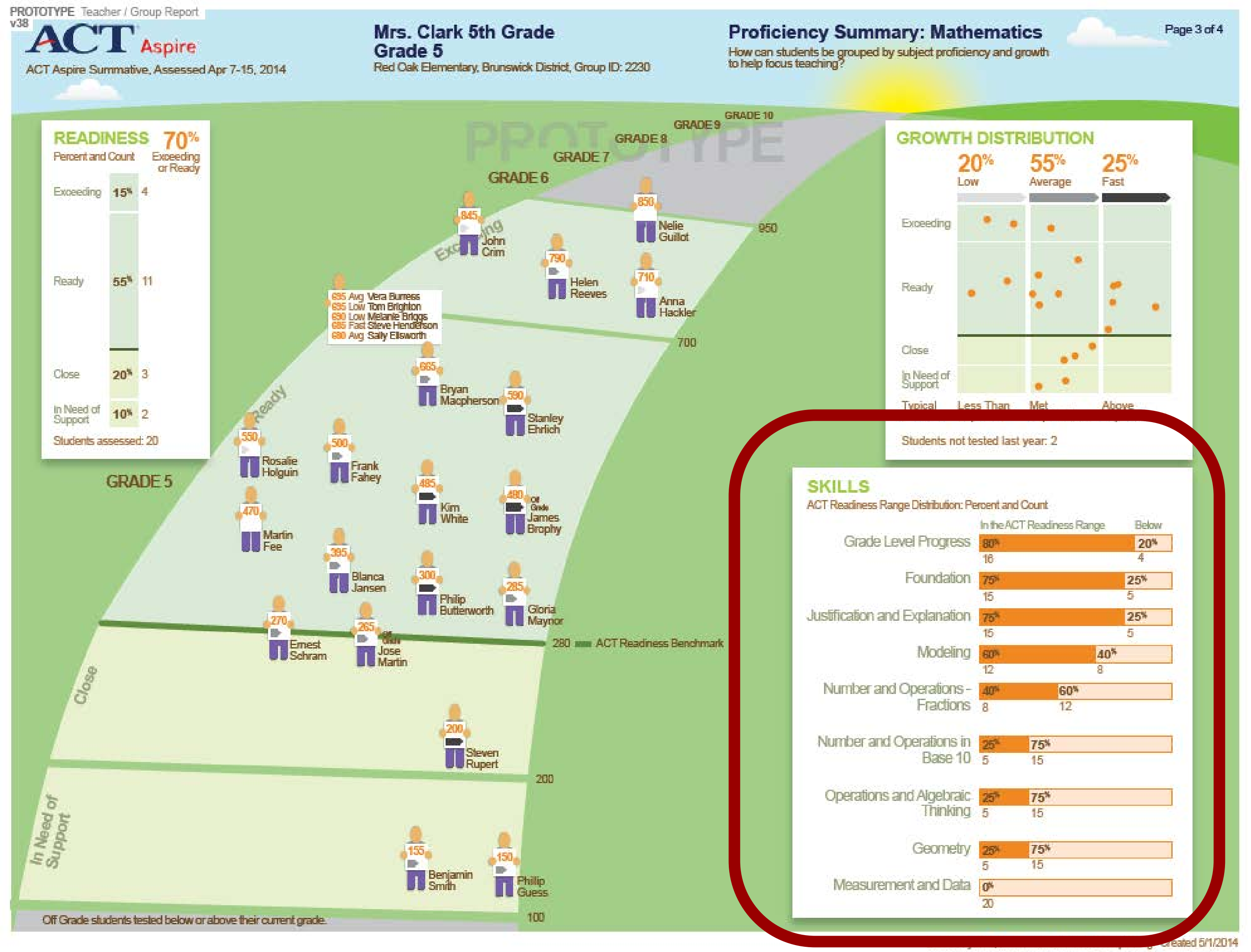

GROWTH DISTRIBUTION
20%
Low
55%
Average
25%
Fast
Exceeding
Ready
Close
In Need of Support
Typical Growth
Less Than Expected
Met Expectations
Above Expectations
Students not tested last year: 2

Grade 5 Class Sample



PROTOTYPE Teacher / Group Report
v38

ACT Aspire

ACT Aspire Summative, Assessed Apr 7-15, 2014

Mrs. Clark 5th Grade
Grade 5
Red Oak Elementary, Brunswick District, Group ID: 2230

Proficiency Summary: Mathematics
How can students be grouped by subject proficiency and growth to help focus teaching?

Page 3 of 4

READINESS 70% Exceeding or Ready

Percent and Count

	Percent	Count
Exceeding	15%	4
Ready	55%	11
Close	20%	3
In Need of Support	10%	2

Students assessed: 20

PROTOTYPE
GRADE 5
GRADE 6
GRADE 7
GRADE 8
GRADE 9
GRADE 10
Exceeding
Ready
Close
In Need of Support
950
700
280 ACT Readiness Benchmark
200
100
845 John Crim
850 Nelie Guillot
790 Helen Reeves
710 Anna Hackler
695 Avg Vera Burress
695 Low Tom Brighton
690 Low Melanie Briggs
685 Fast Steve Henderson
680 Avg Sally Ellsworth
665 Bryan Macpherson
590 Stanley Ehrlich
550 Rosalie Holguin
500 Frank Fahey
485 Kim White
480 Off Grade James Brophy
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285 Gloria Maynor
270 Ernest Schram
265 Off Grade Jose Martin
200 Steven Rupert
155 Benjamin Smith
150 Phillip Guess

Off Grade students tested below or above their current grade.

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20%	55%	25%
Low	Average	Fast

Exceeding
Ready
Close
In Need of Support
Typical
Less Than
Met
Above

Students not tested last year: 2

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ACT Readiness Range Distribution: Percent and Count

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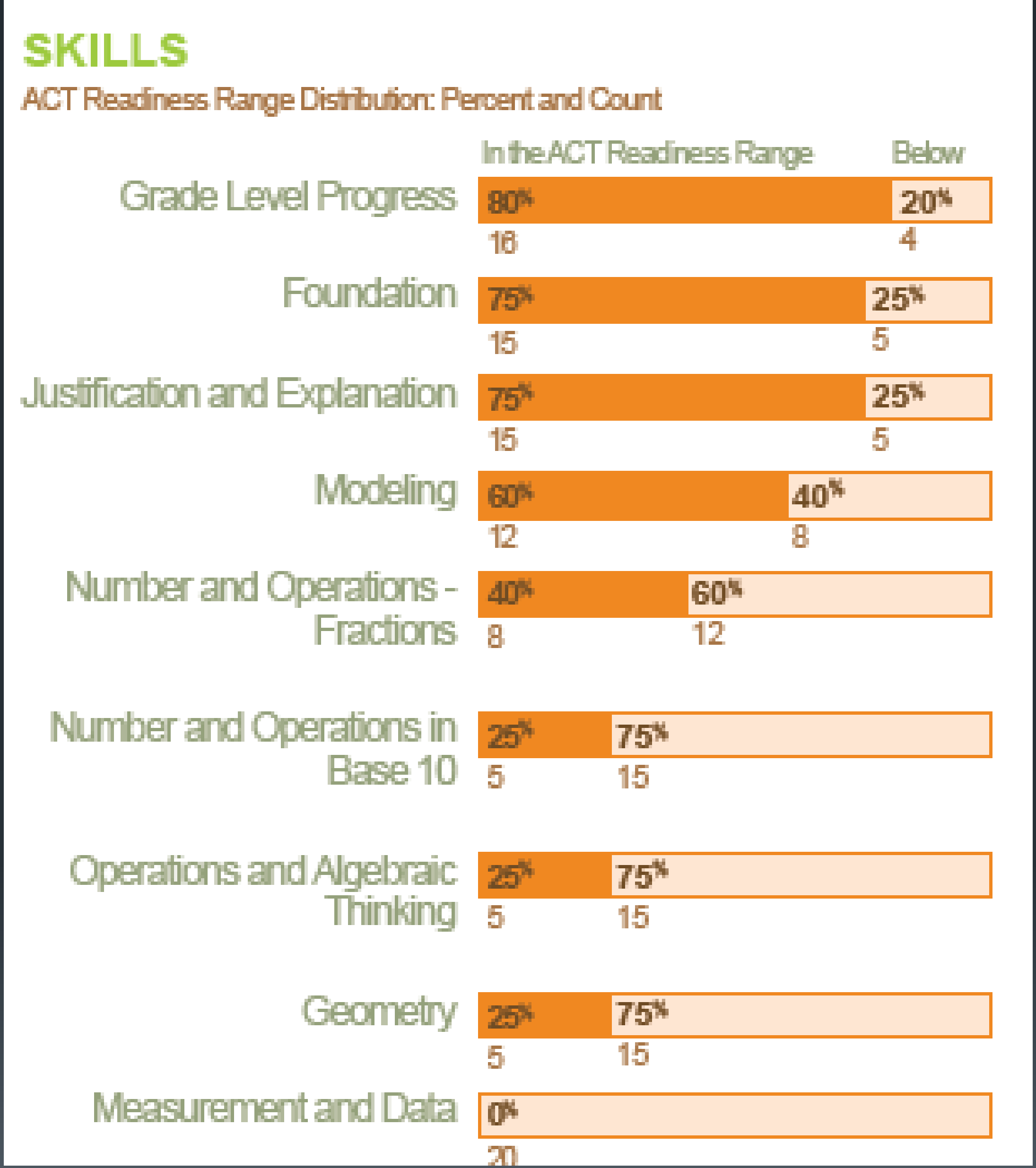
Foundation	75%	15	25%	5
Justification and Explanation	75%	15	25%	5
Modeling	60%	12	40%	8
Number and Operations - Fractions	40%	8	60%	12
Number and Operations in Base 10	25%	5	75%	15
Operations and Algebraic Thinking	25%	5	75%	15
Geometry	25%	5	75%	15
Measurement and Data	0%	20		

Created 5/1/2014


SKILLS
ACT Readiness Range Distribution: Percent and Count
In the ACT Readiness Range
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8
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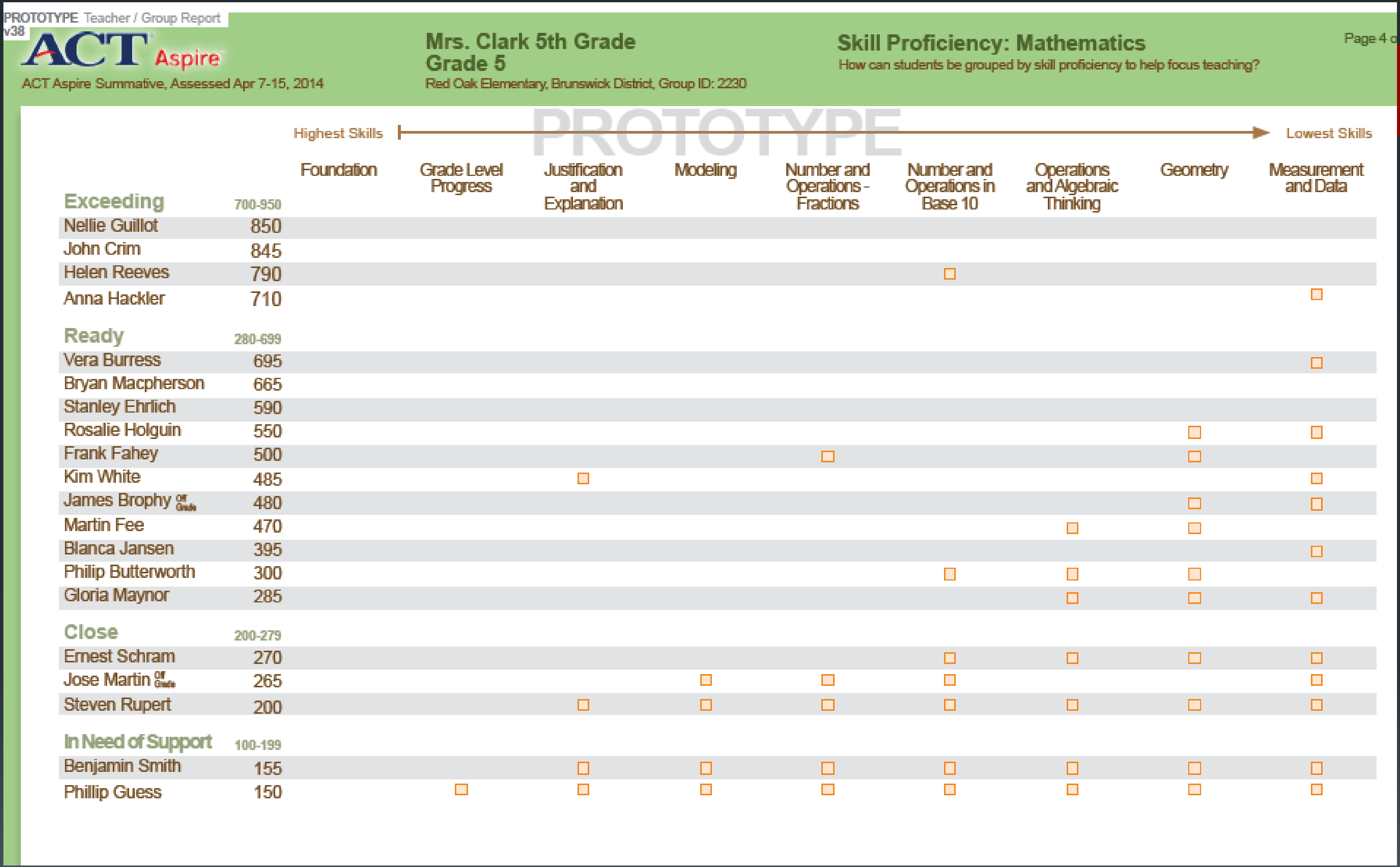
8
60%
12
Number and Operations in Base 10
25%
5
75%
15
Operations and Algebraic Thinking
25%
5
75%
15
Geometry
25%
5
75%
15
Measurement and Data
0%
20



PROTOTYPE Teacher / Group Report
v38

ACT Aspire Summative, Assessed Apr 7-15, 2014

Mrs. Clark 5th Grade
Grade 5
Red Oak Elementary, Brunswick District, Group ID: 2230

Skill Proficiency: Mathematics
How can students be grouped by skill proficiency to help focus teaching?

Page 4 o

PROTOTYPE

Highest Skills → Lowest Skills

		Foundation	Grade Level Progress	Justification and Explanation	Modeling	Number and Operations - Fractions	Number and Operations in Base 10	Operations and Algebraic Thinking	Geometry	Measurement and Data
Exceeding	700-950									
Nellie Guillot	850									
John Crim	845									
Helen Reeves	790						☐			
Anna Hackler	710									☐
Ready	280-699									
Vera Burress	695									☐
Bryan Macpherson	665									
Stanley Ehrlich	590									
Rosalie Holguin	550								☐	☐
Frank Fahey	500					☐			☐	
Kim White	485			☐						☐
James Brophy Off Grade	480								☐	☐
Martin Fee	470							☐	☐	
Blanca Jansen	395									☐
Philip Butterworth	300						☐	☐	☐	
Gloria Maynor	285							☐	☐	☐
Close	200-279									
Ernest Schram	270						☐	☐	☐	☐
Jose Martin Off Grade	265				☐	☐	☐			☐
Steven Rupert	200			☐	☐	☐	☐	☐	☐	☐
In Need of Support	100-199									
Benjamin Smith	155			☐	☐	☐	☐	☐	☐	☐
Phillip Guess	150		☐	☐	☐	☐	☐	☐	☐	☐

How do we use the information from the ASPIRE to improve teaching and learning?

Thank you

Jim Gleason
jgleason@ua.edu