

# Herricks Instructional Data Presentation



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**Herricks Public Schools**

*Education Today • Knowledge Forever*

We would like to thank the Board of Education, Dr Celano, Ms Guercin, Ms Maggiacomo and Ms Rutkoske for all their support over the years.

*Different types of assessments in the classroom:*

*Formative & Summative*

*How do we know what students know?*

### **Formative:**

- Quizzes
- Checklists
- Observations
- Homework
- Activities
- Projects
- Rubrics
- Teacher and Student generated questions

### **Summative:**

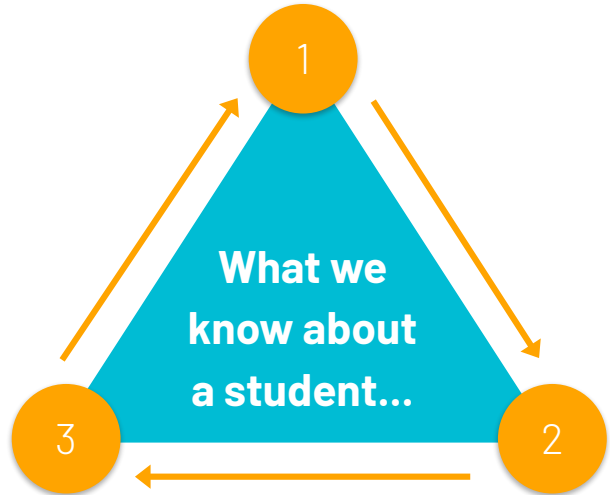
- Tests
- Chapter Exams
- State tests
- End-of-year assessments
- Rubrics
- Performance based assessments
- Teacher and Student generated questions

These are just a few of the many ways teachers assess students.

# Data Triangulation

The process of using at least **three data points** to inform educational decision making.

<http://assessmentliteracy.org/interpret/data-triangulation/>



Multiple data points should always be utilized to help make an informed decision.

# What is the NWEA?

**nwea** (North-West  
Evaluation  
Association)

Features an  
assessment called  
MAP Growth

Measures of  
Academic  
Progress

- Computerized assessment
- Test will adjust based on how students answer
- It will build a test just for each individual student

Reading Test Name: Jean Brooks (0) ID: 564 Questions: 1 (Item 10046940)

**Read the paragraph.**

Claire was putting up artwork on the bulletin board in her room when her box of thumb tacks fell off her desk. The sharp tacks tumbled all over her bedroom rug. Claire stopped putting up her artwork, carefully knelt on the floor, and picked up all the tacks.

**Why did Claire stop putting up artwork?**

01. her mother called her to dinner

02. she was finished putting up her artwork

03. the box of thumb tacks fell off her desk

04. it was time to go to school

Get on

Math Test Name: Jean Brooks (0) ID: 564 Questions: 1 (Item 20006650)

**The zoo has 54 parrots. The zookeeper wants to put 9 parrots in each cage.**

**How many cages will the zookeeper need?**

A. 3

B. 4

C. 6

D. 7

E. 9

Get on

For more information visit [www.nwea.org](http://www.nwea.org)

## What is the NWEA?



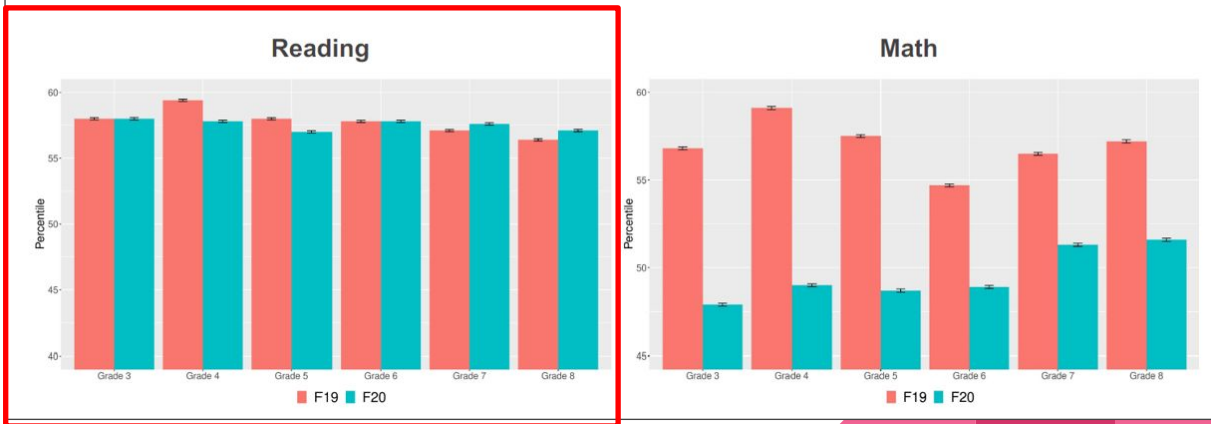
- Typically, tests are given in the Fall, Winter, and Spring
  - K-2 Math & Map Reading Fluency
  - 3-8 Math & Reading

The NWEA assessment generates a RIT Score and Percentile which helps us measure growth over time.

# NWEA: National Covid Impact Analysis

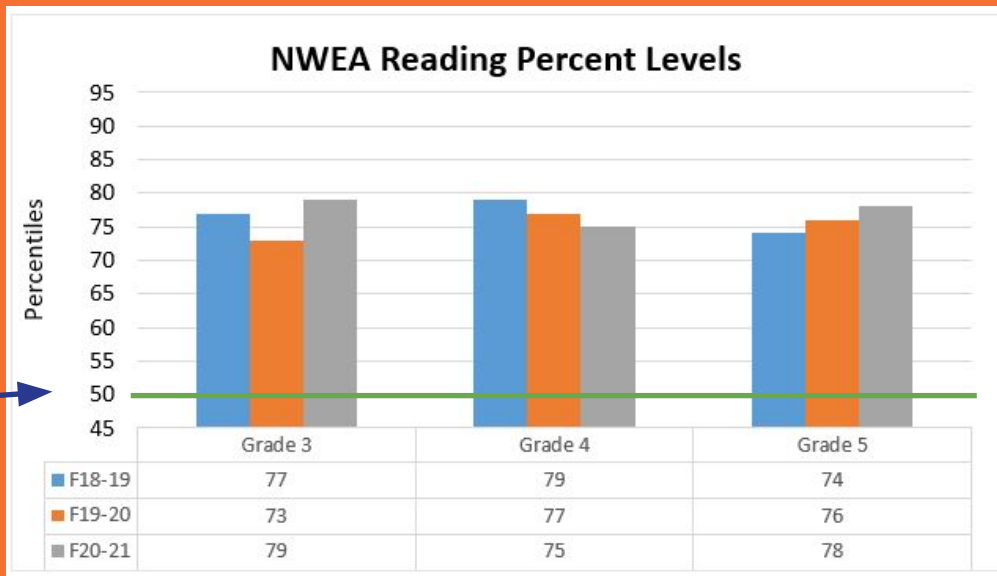
Research from 4.4 million students in grades 3-8 who took assessments in Fall 2020.

Compared to fall 2019, student achievement this fall was similar in reading, but, on average, 5 to 10 percentile points lower in math.



NWEA research data regarding the impact of covid and remote instruction.

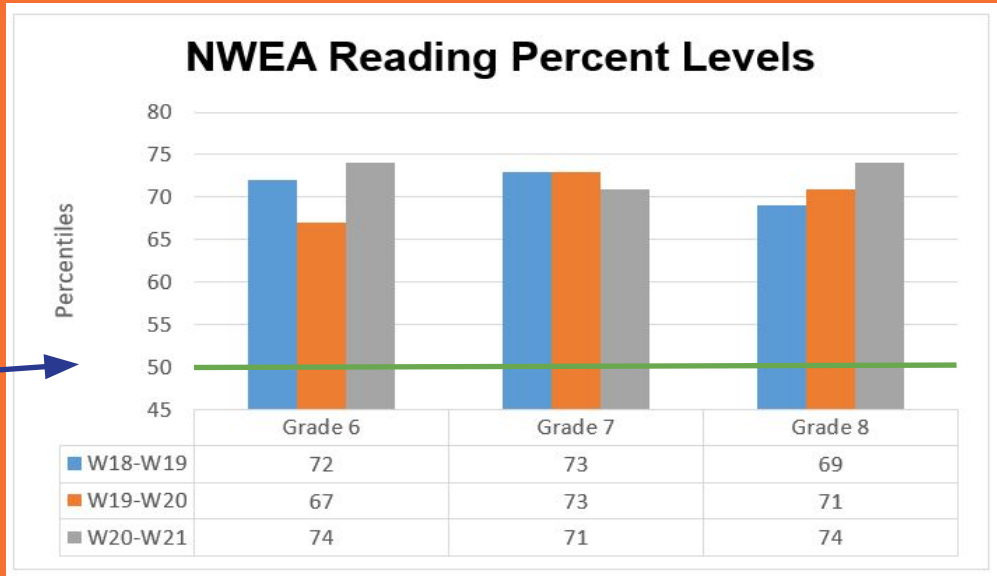
# Herricks NWEA Reading Fall 2020 Scores Grades 3-5



National Average

Herricks NWEA Reading Fall 2020, Grades 3-5

# Herricks NWEA Reading Winter 2021 Scores Grades 6-8



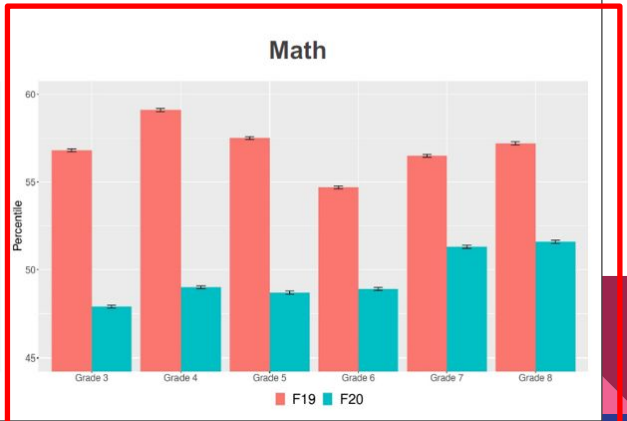
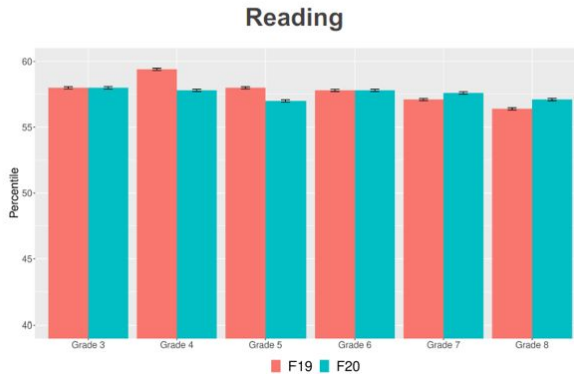
National  
Average

Herricks NWEA Reading Winter 2021, Grades 6-8.

# NWEA: National Covid Impact Analysis

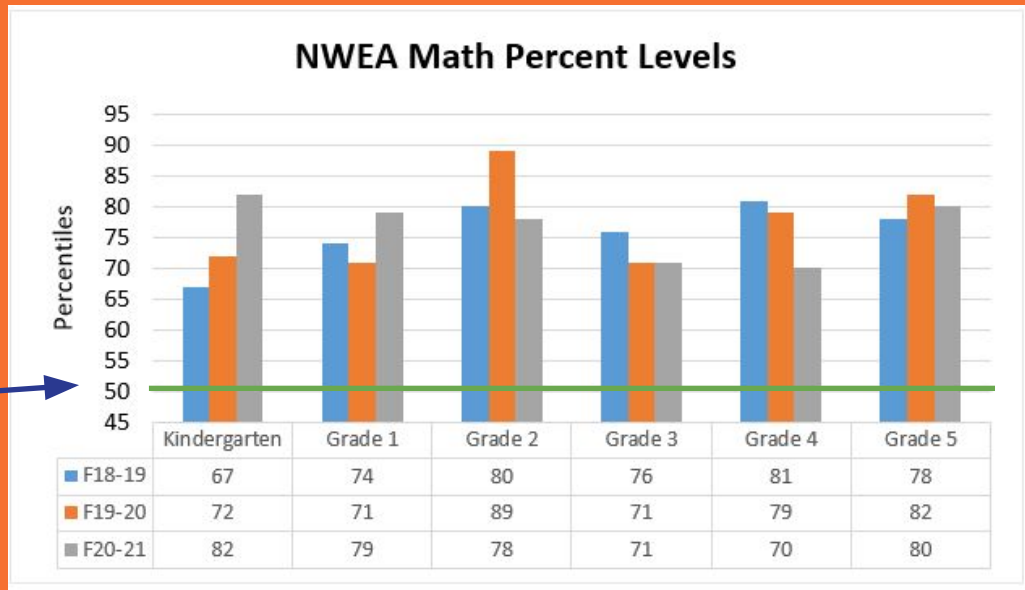
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NWEA research data

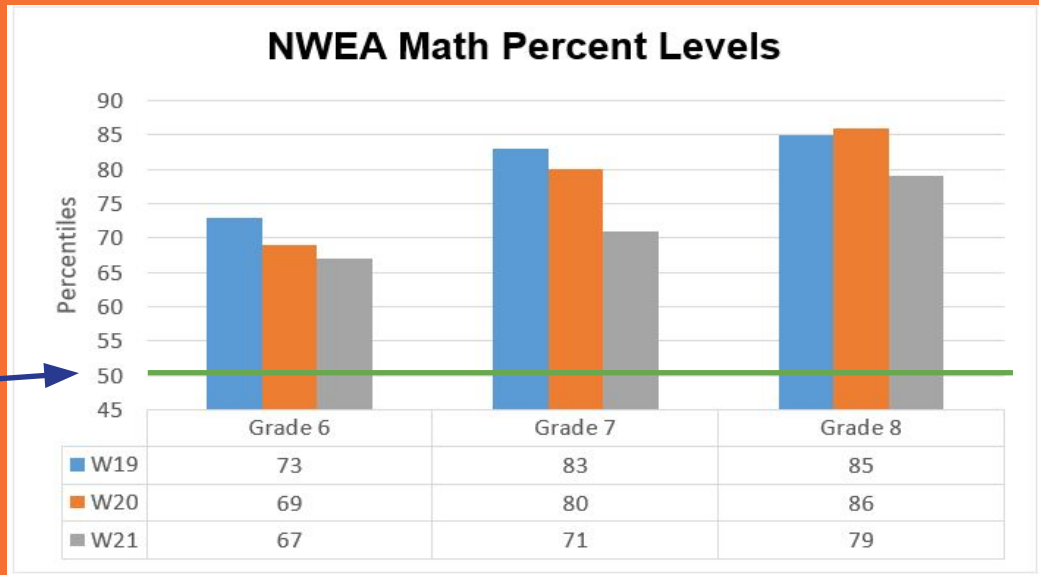
# Herricks NWEA Math Fall 2020 Scores Grades K-5



National  
Average

Herricks NWEA Math Fall 2020, Grades K-5.

# Herricks NWEA Math Winter 2021 Scores Grades 6-8



National  
Average

Herricks NWEA Math Winter 2021, Grades 6-8.

## Narrowing Down

- The previous slides gave us a broad view of Herricks performance on the NWEA
- Each NWEA score is comprised of sub goals that make up that subject. Hence, we are able to look at more detail regarding performance.
- On the next slides, you will see an example of how the sub goals data help lead us to connections with curriculum



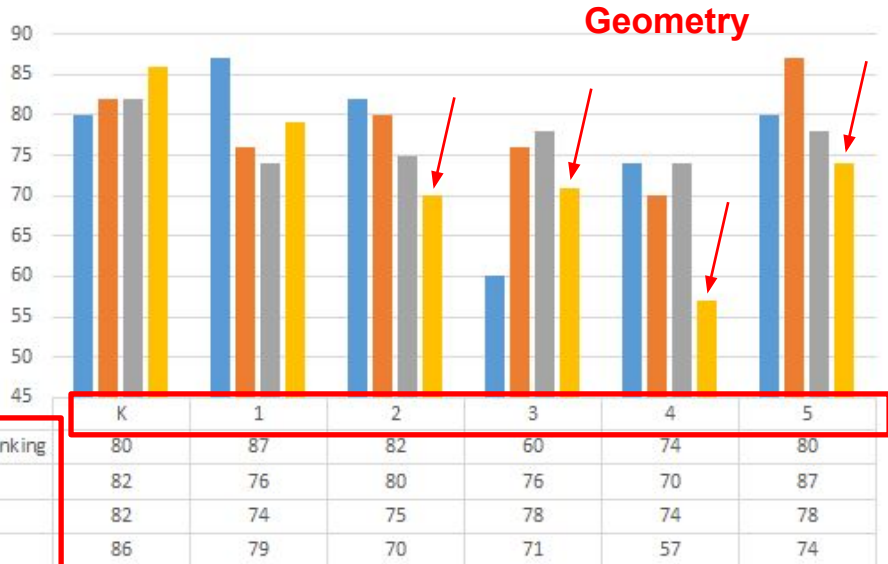
Celebrate success, and then dig deeper into the data and narrow the lens.

# Herricks NWEA Math Fall 2020

Math Percent Levels - By Goal

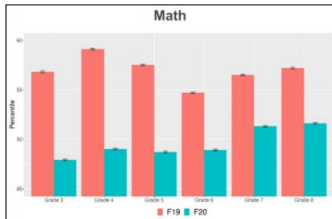
## NWEA Math Subgoals:

- Operations and Algebraic Thinking
- Numbers and Operations
- Measurement and Data
- Geometry



- Relative to other subgoals, Geometry has lowest percentiles among 2nd, 4th, and 5th graders
- We can look at instructional data and where it lies in the curriculum. In the subsequent slides, Geometry will be used as an example.

**NWEA:** “Initial analysis of fall performance for grades 3–8 suggests that the effort is paying off, though there is **unfinished learning in math...**”



## NWEA: Reasons for lower math percentiles

- learned math is sequential
- the abstract nature of math
- math anxiety



These were the days of remote instruction

Slides 16-18 highlight the intersection of when a topic is taught and to what depth it is required by the state (the scope and sequence).

# Curriculum Map

**Grade levels**


**Days in a school year**

**Days of remote instruction**

HERRICKS PUBLIC SCHOOLS  
2019-2020 School Calendar

**K 1 2 3 4 5**

**A look into the curriculum map during the days of remote instruction**

|  |  |  |  |   |  |
|--|--|--|--|---|--|
| M4: Number Pairs, Addition and Subtraction to 10 (47 days)   | (35 days)  | M5: Equations of Proportional Relationships (24 days)              | (35 days)  | M5: Fraction Equivalence, Ordering, and Operations (45 days)                                      | M5: Addition and Multiplication with Volume and Area (25 days) |
| M5: Numbers 10-20 and Counting to 100 (30 days)  | M5: Identifying, Composing, and Partitioning Shapes (15 days)          | M7: Problem Solving with Length, Money, and Data (30 days)         | M6: Collecting and Displaying Data (10 days)         | M6:  Operations | M6: Problem Solving with the Coordinate Plane (40 days)        |
| M6: Analyzing, Comparing, and Composing Shapes (10 days)   | M6: Place Value, Comparison, Addition and Subtraction to 100 (35 days) | M8: Time, Shapes, and Fractions as Equal Parts of Shapes (20 days) | M7: Geometry and Measurement Word Problems (40 days) | M7: Exploring Multiplication (20 days)  |  |
| *Please refer to grade-level descriptions to identify partially labeled modules and partially labeled modules. |  |  |  |   |  |
| <b>Key:</b>  | Geometry   | Number   | Number and Geometry, Measurement                     | Fractions   |  |

# Sample: Gr 4 Next Generation Standards

*While Geometry is an area of focus, it is typically later in the curriculum sequence*

New York State Next Generation Mathematics Learning Standards (2017)

## Grade 4 Overview

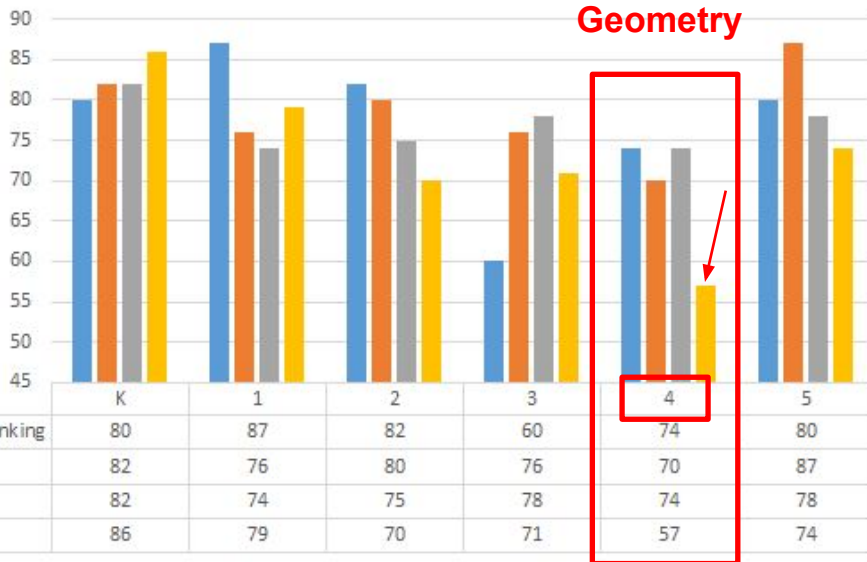
In Grade 4, instructional time should focus on three areas: (1) developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends; (2) developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers; and (3) understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry. Please note that while every standard/topic in the grade level has not been included in this overview, all standards should be included in instruction.

1. Through their learning in the **Number and Operations in Base Ten** domain, students:
  - generalize their understanding of place value to 1,000,000, understanding the relative sizes of numbers in each place;
  - apply their understanding of models for multiplication (equal-sized groups, arrays, area models), place value, and properties of operations as they develop, discuss, and use efficient, accurate, and generalizable methods to compute products of multi-digit whole numbers;
  - select and accurately apply appropriate methods to estimate or mentally calculate products, depending on the numbers and the context;
  - develop fluency with efficient procedures for multiplying whole numbers; understand and explain why the procedures work based on place value and properties of operations; and use them to solve problems;
  - apply their understanding of models for division, place value, properties of operations, and the relationship of division to multiplication as they develop, discuss, and use efficient, accurate, and generalizable procedures to find quotients involving multi-digit dividends; and
  - select and accurately apply appropriate methods to estimate and mentally calculate quotients, and interpret remainders based upon the context.
2. Through their learning in the **Numbers and Operations—Fractions** domain, students:
  - develop understanding of fraction equivalence and operations with fractions;
  - recognize that two different fractions can be equal (e.g.,  $15/9 = 5/3$ ), and develop methods for generating and recognizing equivalent fractions; and
  - extend previous understandings about how fractions are built from unit fractions, composing fractions from unit fractions, decomposing fractions into unit fractions, and using the meaning of fractions and the meaning of multiplication to multiply a fraction by a whole number.
3. Through their learning in the **Geometry** domain, students:
  - deepen their understanding of properties of two-dimensional shapes (e.g., angles, parallelism, and symmetry).

# Herricks NWEA Math Fall 2020

## Math Percent Levels - By Goal

It is important to note the intersection of where a certain concept lies in the curriculum and when our students are tested.

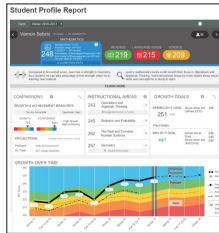
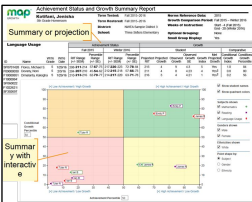
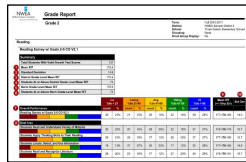


# Takeaways for Herricks Teachers



...in addition to all other curriculum resources

## NWEA Resources



## NWEA: RIT to Concepts

**mop RIT to Concepts**  
 Match RIT to Concepts  
 Relation to Norms

## Khan Academy Math Practice

**Khan Academy**  
 MAP Recommended Practice  
 Use NWEA MAP Test scores to generate personalized math recommendations.

## NYS: Glossary of Math Verbs

**New York State EDUCATION DEPARTMENT**  
 Glossary of Verbs Across Generation Mathematics  
 Definition of use in the standards

## EngageNY Resources

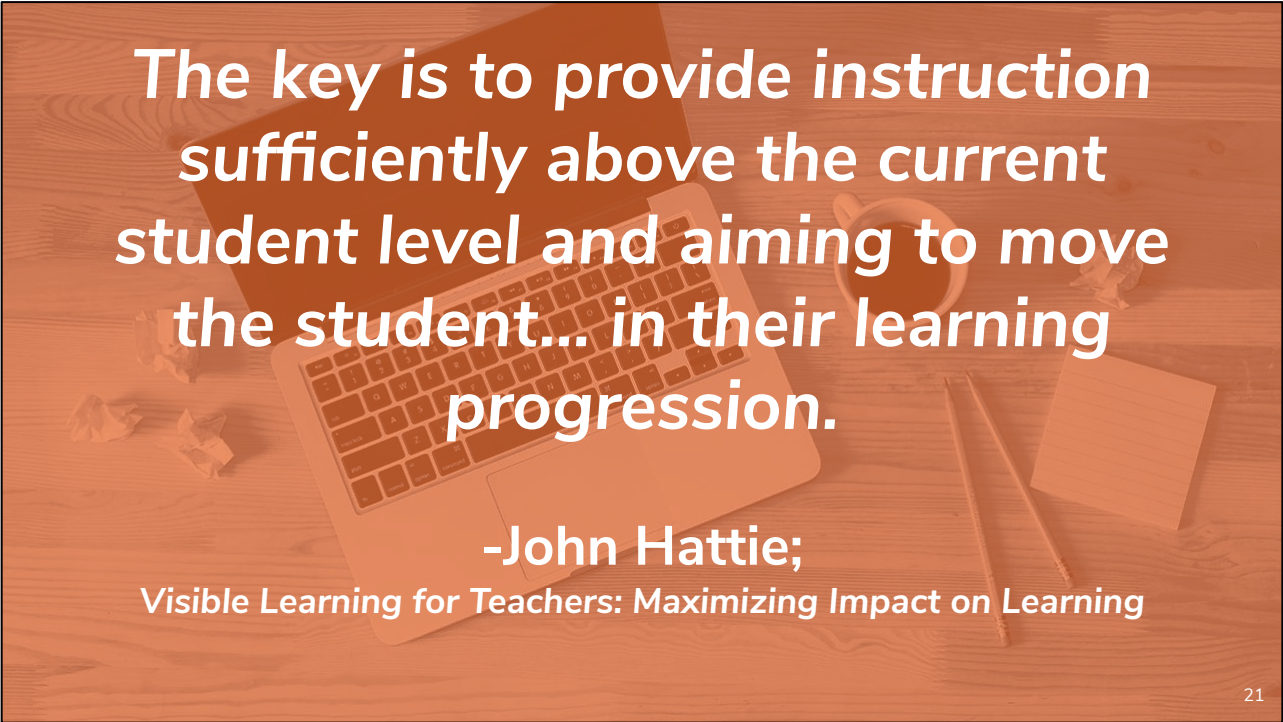
**engageNY**  
 Released 2019 3-8 ELA and Mathematics Size-Test Questions

Action

Data should be used to ~~improve~~ inform instruction.

- \*resources
- \*teaching
- \*goals
- \*curriculum
- \*shifts



The background of the slide is a photograph of a wooden desk. On the desk, there is a laptop, a white mug, two pencils, and several pieces of crumpled paper. The text is overlaid on this image in a white, sans-serif font.

**The key is to provide instruction sufficiently above the current student level and aiming to move the student... in their learning progression.**

**-John Hattie;**

**Visible Learning for Teachers: Maximizing Impact on Learning**



**Thank you!**