



Education Report

Scarsdale Board of Education
October 26, 2022

Tonight's Presentation

- The outcomes of Scarsdale's Schools benchmark measures and standardized assessments and a review of the ongoing internal assessment structures
- **Transformations in Curriculum** that support the development of critical thinking skills, learning dispositions and the flexible application of learning



Assessments

Reviewing Standardized Measures of Student Achievement



College Data



Scarsdale Graduates to College

Class of...	Percent to College	Percent to 4-year College
2022	98%	97%
2021	99%	97%
2020	97%	96%
2019	98%	96%
2018	99%	98%
2017	98%	97%
2016	98%	97%

Percent of Scarsdale graduates accepted to colleges and universities ranked “most competitive” in the U.S.

Class of...	Percentage
2022	61%
2021	63%
2020	67%
2019	64%
2018	63%
2017	59%
2016	63%

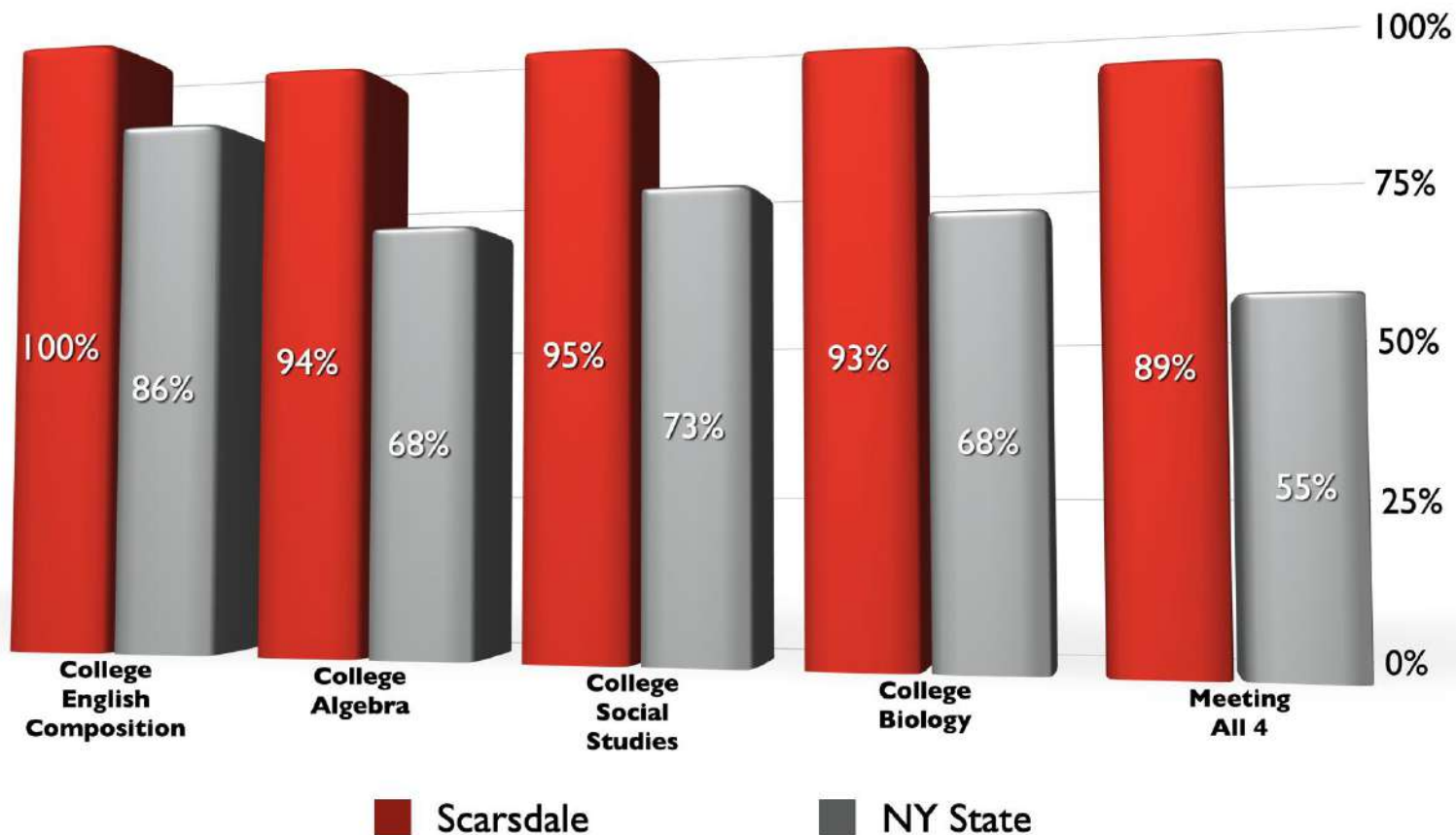


SAT Scores

Scarsdale High School SAT Score Results

	Scarsdale High School					National			
Class of...	ERW (mean)	Math (mean)		Total (mean)		ERW (mean)	Math (mean)		Total (mean)
2022	673	701		1374		529	521		1050
2021*	684	713		1397		541	538		1088
2019	676	705		1381		531	528		1059
2018	668	689		1357		536	531		1068
2017**	663	674		1337		538	533		1060
	Crit. Reading (mean)	Math (mean)	Writing (mean)	Total (mean)		Crit. Reading (mean)	Math (mean)	Writing (mean)	Total (mean)
2016	634	658	649	1941		494	508	482	1484
2015	637	657	652	1946		495	511	484	1490
2014	636	663	659	1958		497	513	487	1497
2013	633	656	648	1937		496	514	488	1498
2012	632	651	643	1926		497	514	498	1509
2011	634	651	650	1935		497	514	489	1500
2010	611	650	643	1904		501	516	492	1509
2009	628	656	641	1925		501	515	493	1509
2008	617	655	644	1916		502	515	494	1511
2007	617	639	636	1892		502	515	494	1511
2006	613	643	634	1890		503	518	497	1518

Percent of 2022 ACT-Tested Students Ready for College-Level Coursework



SAT and ACT vs Comparable Districts

2022 Mean Composite ACT Scores for Comparable Districts

	Scarsdale	Chappaqua	Bronxville	Byram Hills	Edgemont ¹	Blind Brook (Rye Brook)	Great Neck South	Great Neck North ²
Composite	30.3	29.5	29	29	29	28	27.9	25.7

¹ Edgemont class of 2021

² Great Neck North class of 2021

Class of 2022 Mean Combined SAT Scores of Comparable Districts

	Scarsdale	Edgemont ¹	Chappaqua	Bronxville	Blind Brook (Rye Brook)	Great Neck South	Byram Hills	Great Neck North ²
ERW	673	672	662	673	647	634	638	632
Math	701	688	676	658	671	678	644	666
Total	1374	1360	1337	1332	1318	1312	1282	1298

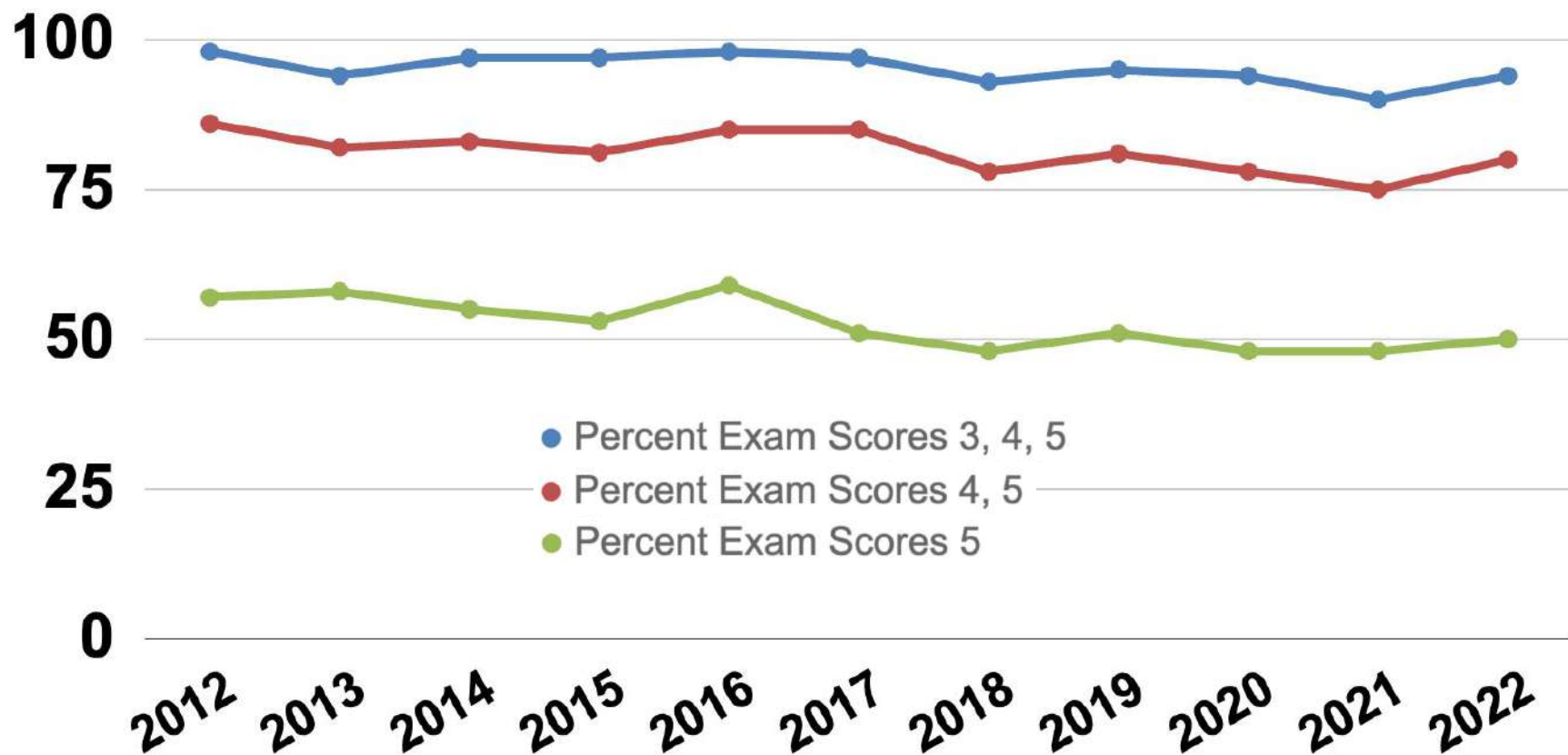
¹Edgemont class of 2021

² Great Neck North class of 2021

Advanced Placement Exam Score Results

Class of	Students Writing Exams	Total Exams	Mean Test Score	% Exam Scores 5	% Exam Scores 4, 5	% Exam Scores 3, 4, 5
2022	318	583	4.2	50%	80%	94%
2021	302	499	4.1	48%	75%	90%
2020	305	542	4.2	48%	78%	94%
2019	288	470	4.26	51%	81%	95%
2018	294	491	4.19	48%	78%	93%
2017	227	419	4.31	51%	85%	97%
2016	248	392	4.41	59%	85%	98%

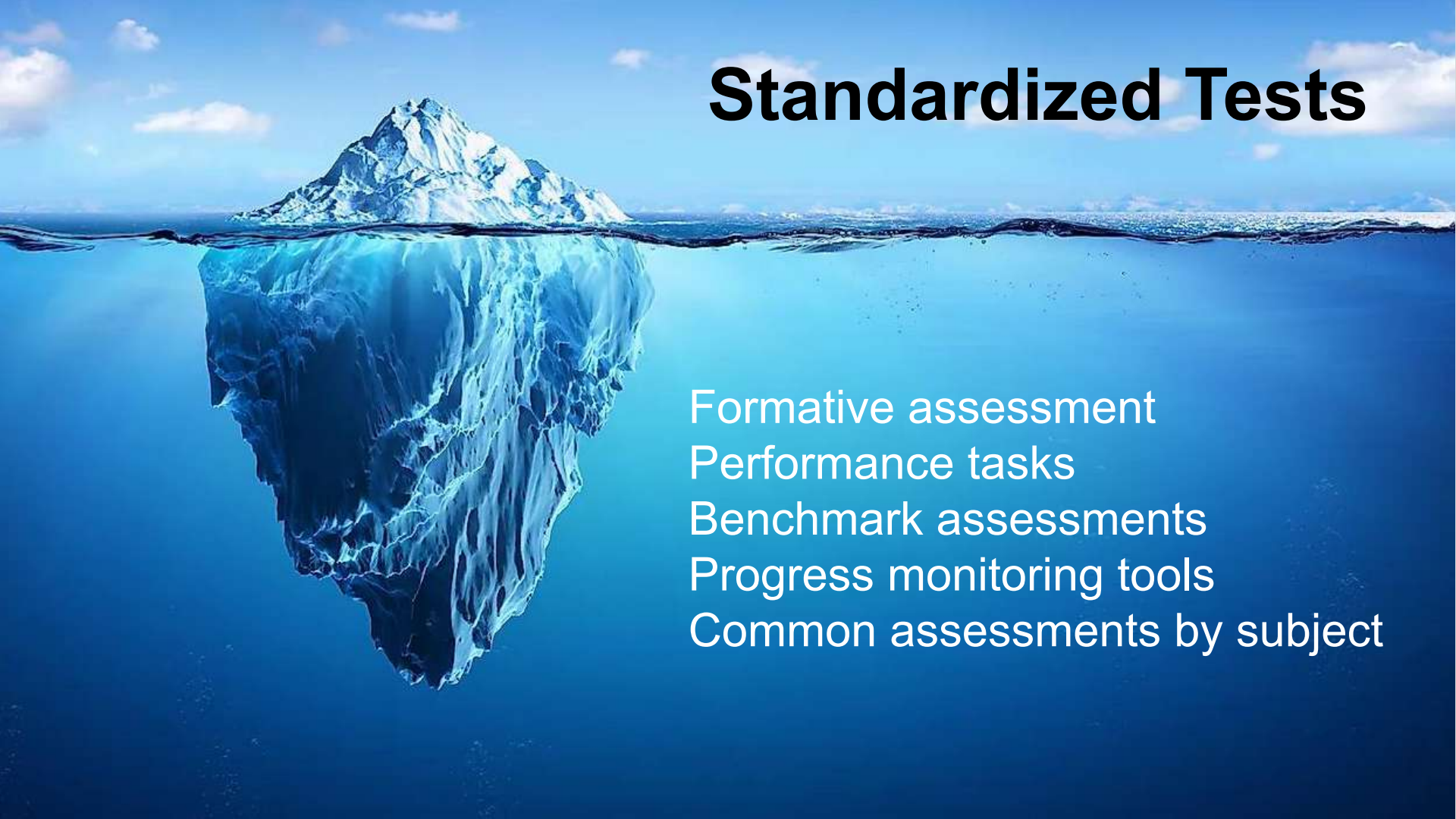
Advanced Placement Exam Score Results



Annual Percentage of Students Scoring 65-100%¹

Regents Exam	2012	2013	2014	2015	2016	2017	2018	2019	2022 ⁵
Integrated Algebra I	99% ²	99% ²	99% ²	88% ³	84% ³	not offered	not offered	not offered	not offered
Common Core Algebra	not offered	not offered	97% ²	95% ²	100% ²	99% ²	98% ²	98% ²	98% ²
Common Core ELA	not offered	not offered	not offered	not offered	100%	99%	97%	98%	99%
Comprehensive English	97%	98%	100%	99%	82% ⁴	not offered	not offered	not offered	not offered
Living Environment (Biology)	100%	99%	99%	99%	98%	99%	100%	99.5%	99%
Global History	99%	99%	99%	98%	98%	99%	99%	99.7%	99%
U.S. History and Government	99%	99%	100%	99%	100%	99%	99%	99%	not offered

Standardized Tests

An iceberg floating in the ocean. The tip of the iceberg is above the water line, while the much larger, jagged base is submerged underwater. This visual metaphor represents the concept of standardized tests being only a small, visible portion of a much larger, unseen body of knowledge or assessment.

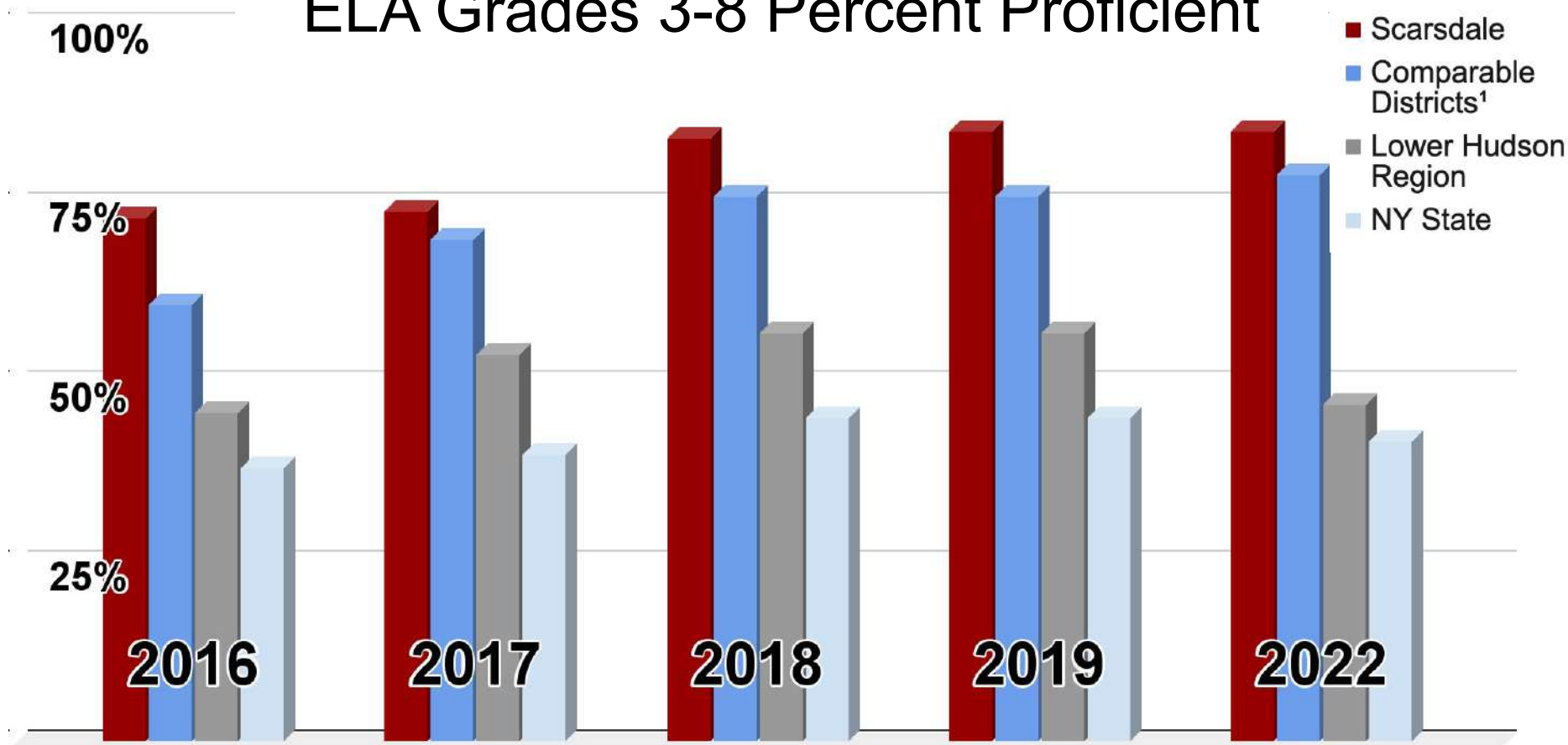
Formative assessment
Performance tasks
Benchmark assessments
Progress monitoring tools
Common assessments by subject

ELA**NYS ELA Proficiency Rate (Levels 3 & 4) 2016-2022 *****Historical Comparison of Scarsdale's Proficiency Rate**

Grade Level	2016	2017	2018	2019	2022
3	87%	87%	88%	91%	93%
4	83%	78%	89%	87%	84%
5	71%	74%	84%	82%	85%
6	56%	65%	88%	86%	89%
7	66%	67%	82%	79%	81%
8	80%	74%	71%	86%	80%
Avg 3-8	74%	74%	84%	85%	85%

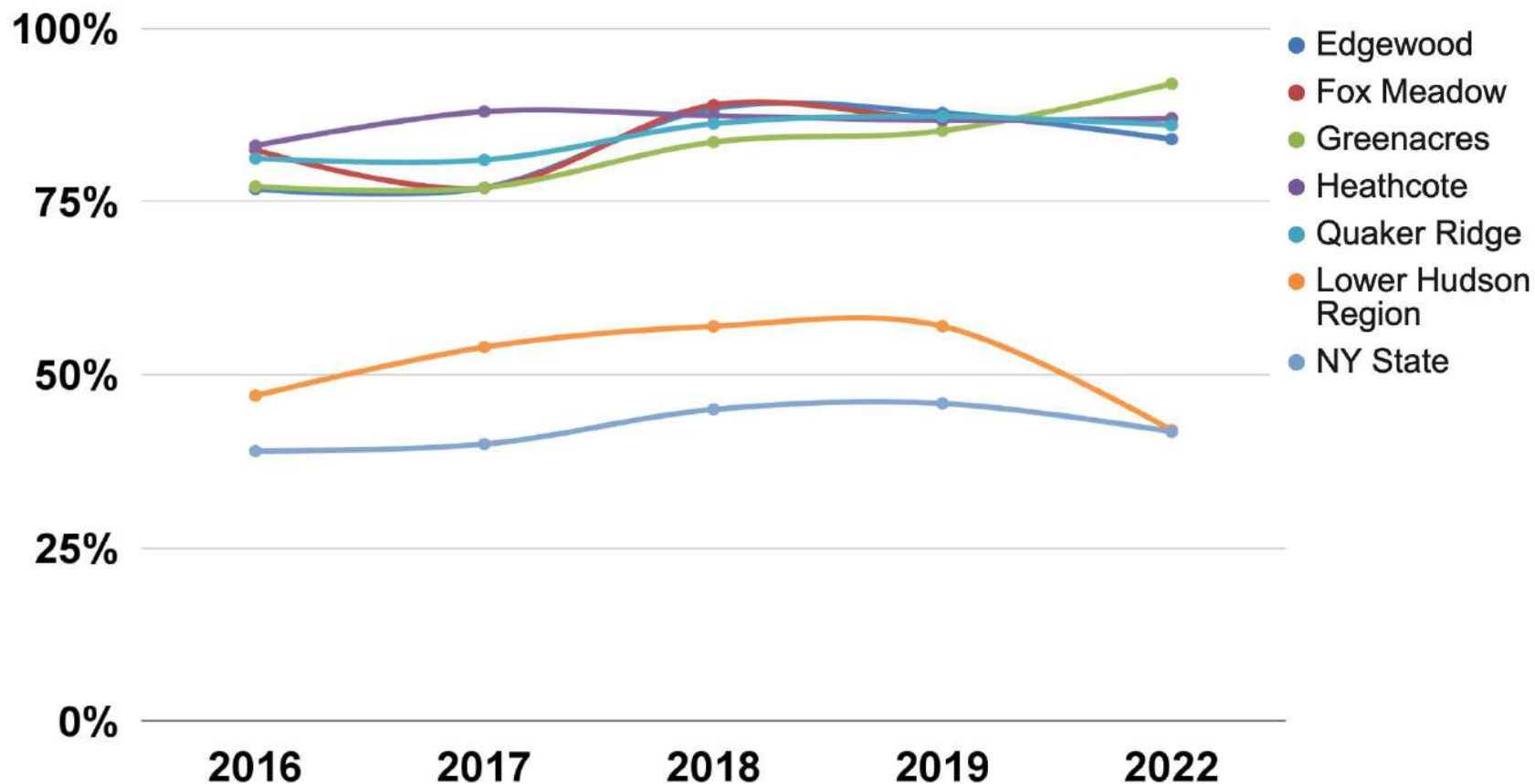
* 2020 & 2021 omitted due to COVID-19 cancellation (2020) and 2021 version that cannot be compared to other years.

ELA Grades 3-8 Percent Proficient



¹ Ardsley, Blind Brook-Rye, Bronxville, Byram Hills, Chappaqua, Edgemont, Great Neck, Mamaroneck, and Rye City
2020 & 2021 omitted due to COVID-19 cancellation (2020) and 2021 version that cannot be compared to other years.

Grades 3-5 ELA Percent Proficient (Level 3 & 4)



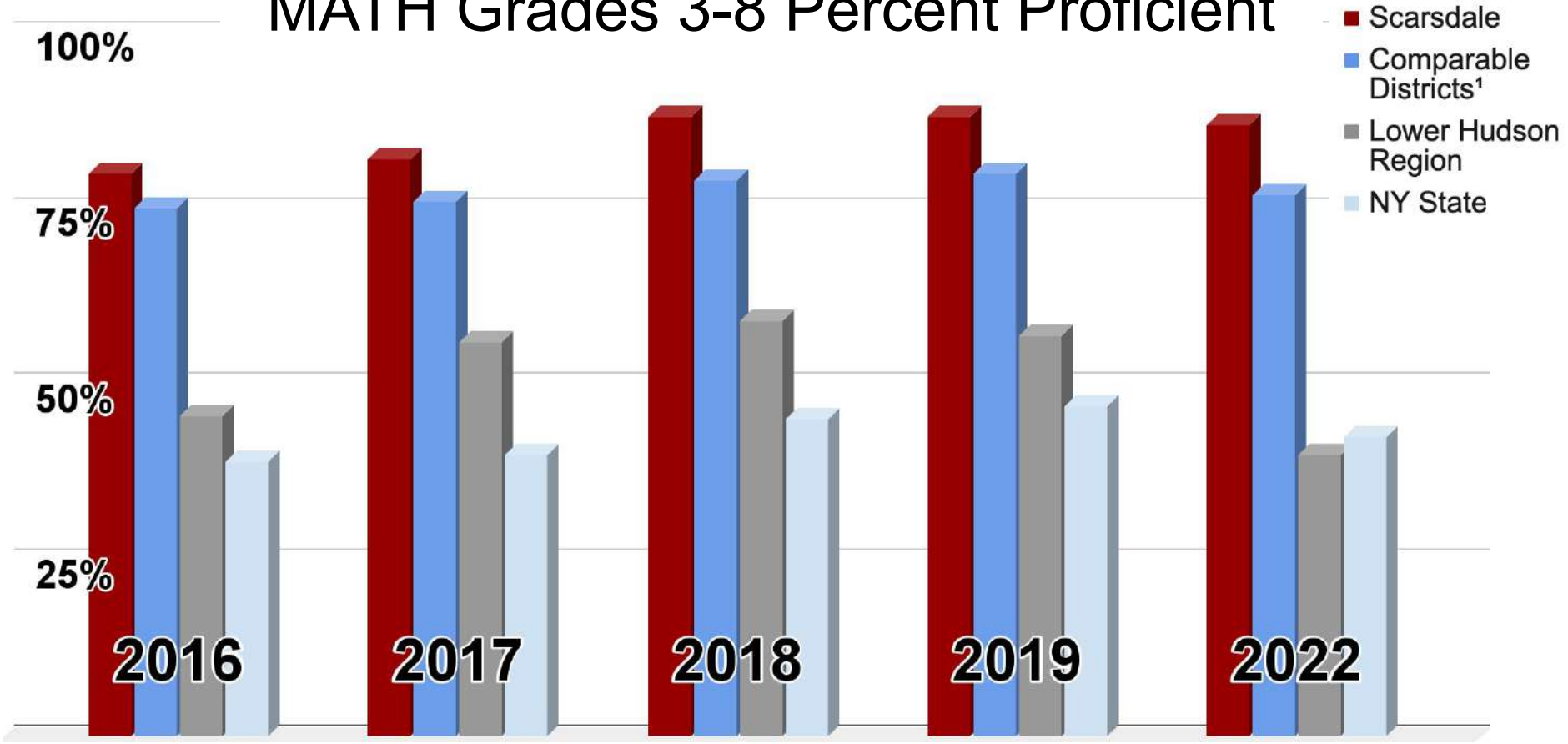
2020 & 2021 omitted due to 2020 COVID-19 cancellation & 2021 version that cannot be compared to other years.

Math**NYS MATH Proficiency Rate (Levels 3 & 4) 2016-2022 *****Historical Comparison of Scarsdale's Proficiency Rate**

Grade Level	2016	2017	2018	2019	2022
3	83%	89%	92%	92%	92%
4	84%	86%	92%	90%	91%
5	80%	83%	88%	90%	88%
6	76%	83%	88%	86%	87%
7	78%	78%	88%	85%	79%
8	81%	74%	79%	86%	86%
Avg 3-8	80%	82%	88%	88%	87%

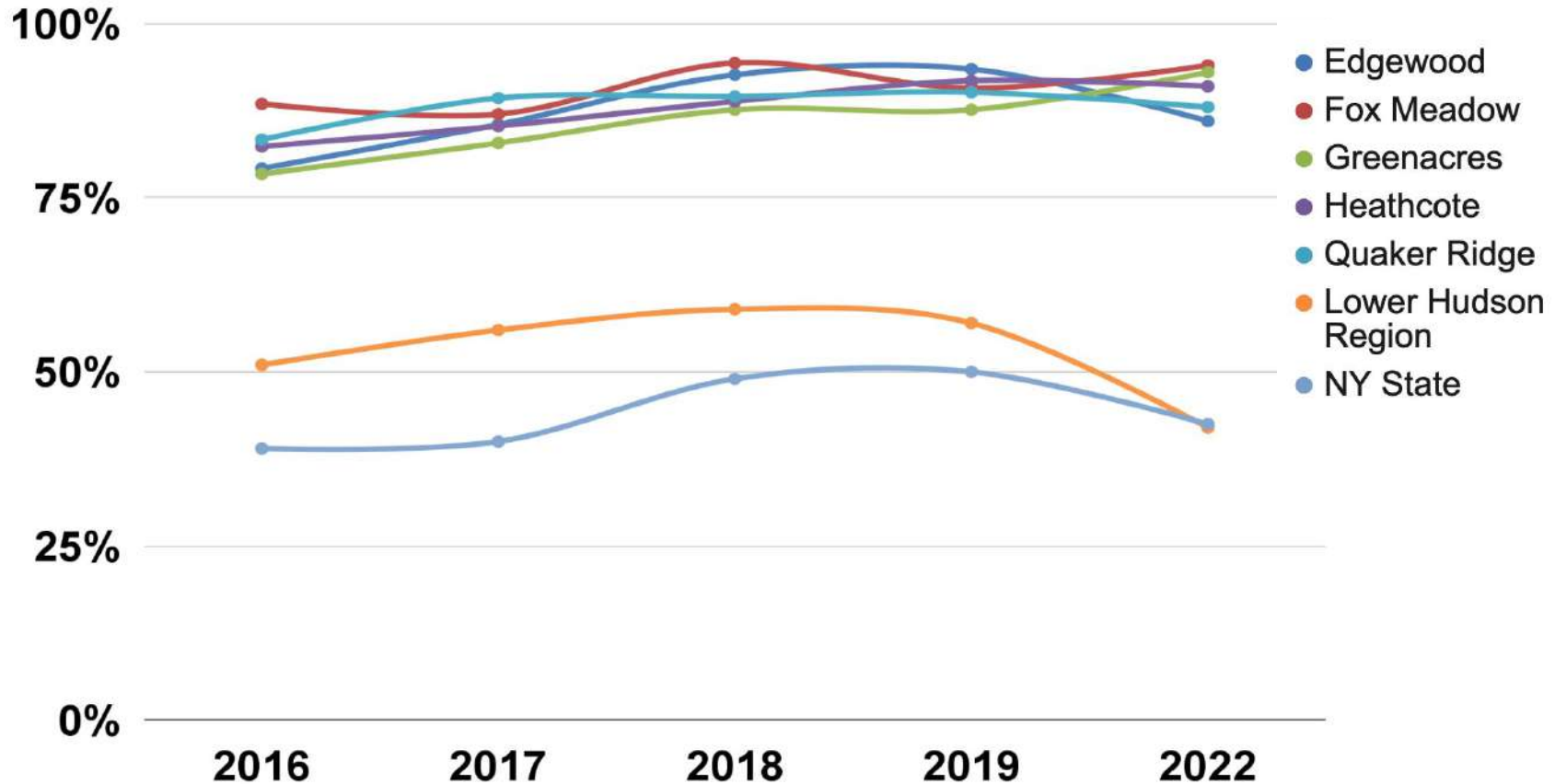
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MATH Grades 3-8 Percent Proficient

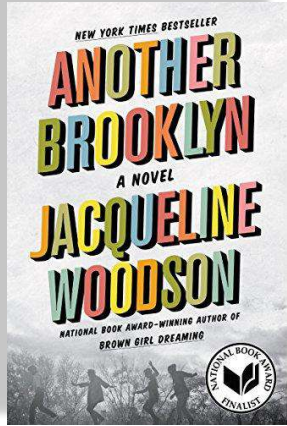


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Grades 3-5 MATH Percent Proficient (Level 3 & 4)

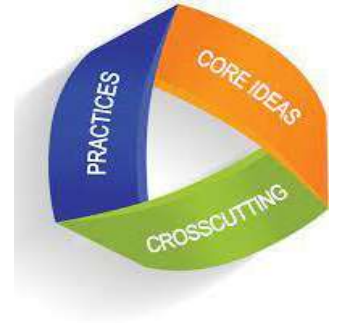


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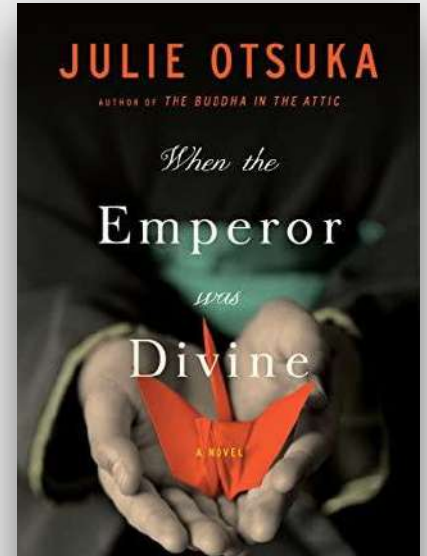
Curriculum Transformations

Rationale & Process



Curriculum Evolution in Classrooms

Elementary Math



High School Chemistry



English Core Texts

The curriculum tools we use (textbooks, texts, programs) need to support the pedagogical methods that lead to student learning we value.

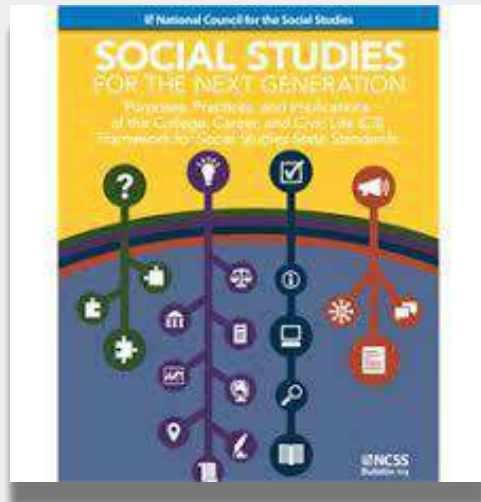


What Drives Curriculum Transformations?



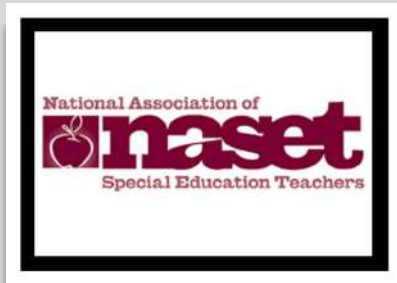
Research in Education

Guiding Frameworks



Research in Education

Shifts Researched and Promoted by Professional Organizations



Scarsdale Focused Research

- Scarsdale Student Assessment Data
 - Quantitative
 - Qualitative
- Scarsdale Teacher Institute
- Scarsdale Center for Innovation
- Internal educational partnerships
(Metamorphosis, Project Zero, GEBG, PNWBOCES, Alvin Ailey, Kaleidoscope, WestEd, TCRWP, The Burlington School)



How Do Curriculum Transformations Happen?



How Do Curriculum Transformations Happen?



- Needs are identified through committee, team, and department review
- Large scale changes related to Program/Tool adoption are determined by representative committees
- Textbooks, curriculum, and common texts are presented and reviewed by the BOE



Professional Learning

- Professional learning and planning for educators is ongoing, responsive, and include opportunities for program review
- Includes multiple opportunities for assured/common and educator driven learning



Elementary Math Update

Once the tools are chosen

- Flexible teacher training
- Embedded assessment and feedback
- Leadership training
 - Observations
 - Communication
 - Support
 - Philosophy



Mathematical Practices

Math is... Modeling

How does the array represent the problem?

Math is... Mindset

How have you relied on your strengths to be successful today?

Math is... Structure

How can you use the multiplication fact table to skip count by 10?

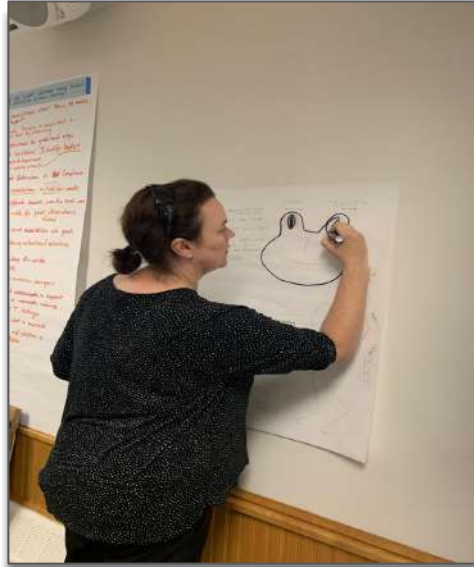
Math is... Connections

How is multiplying by 2 related to doubling?

Math is... Explaining

How is 2×1 related to 1×2 ?

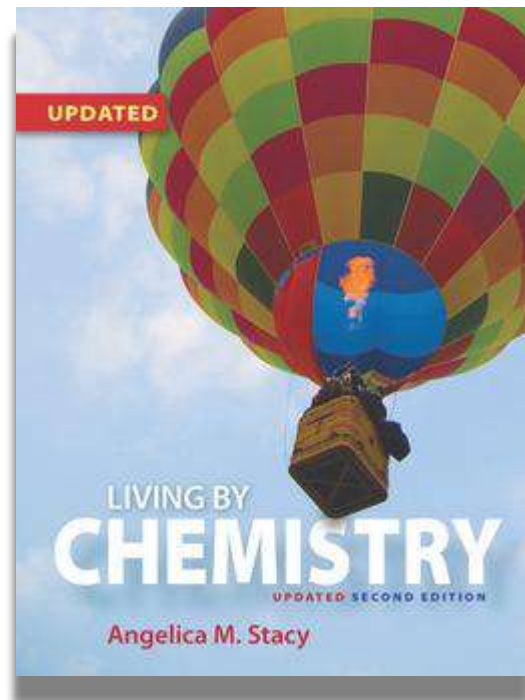
Next Generation Science Standards (NGSS)



Leadership Training

The Process for NGSS Response

- **Elementary Vertical Training K-5**
 - Assured professional learning
 - Collaborative decision making over tool selection (pilots and lab classrooms)
 - Structures to support grade level movement and new teachers
- **Secondary Department Process**
 - Department level review and discussion or pedagogical shifts
 - Department meetings
 - Program Improvement Days
 - STI Courses
 - **Pilot and Assessment of texts and tools**
 - Data collection and analysis, qualitative and quantitative

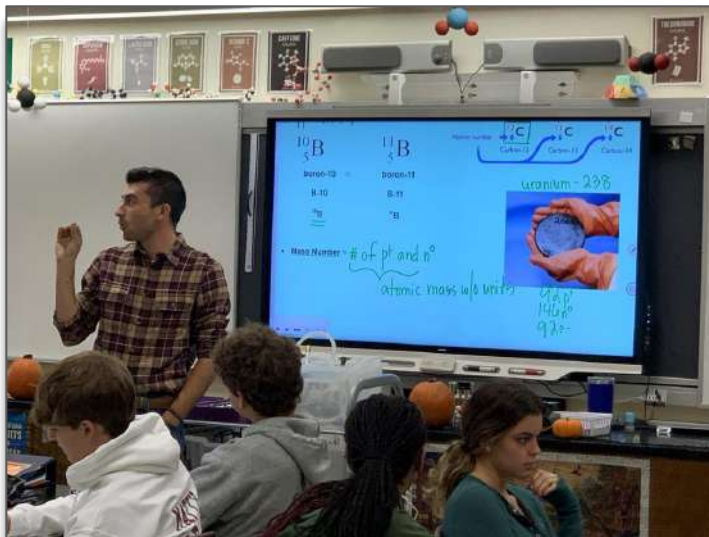


High School Junior Chemistry Course:

Shifting from 'learning about' to 'figuring out'...

Transformative Goals:

- integrate core chemistry content, process skills, and embedded assessments in meaningful contexts.
- more student-centered and teacher facilitated
- introduce students to the ways chemists think about the world and approach complex problems
- balance the content of a traditional chemistry course with engaging applications via inquiry learning
- teach science the way that science is practiced



UNIT #1: ALCHEMY

“Is it possible to turn ordinary substances into gold?”



Chapter 1: “What properties can we use to justify the identity of the gold penny?”

- Lab Safety
- Matter
- Density

Chapter 2: “Can we change copper into gold through a chemical reaction?”

- Elements, Compounds, Symbols
- Chemical Changes
- Law of Conservation of Matter
- Periodic Table; History & Trends

Chapter 3: “What makes copper different from gold?”

- Atomic Theory & Models
- Atomic Structure
- Isotopes & Average Atomic Mass
- Nuclear Stability & Decay

Chapter 4: “How will changing the number of electrons affect an atom?”

- Flame Tests
- Ions
- Electron Configurations
- Ionic Compounds
- Formula Writing & Naming

Chapter 5: “How do atoms join together to form compounds?”

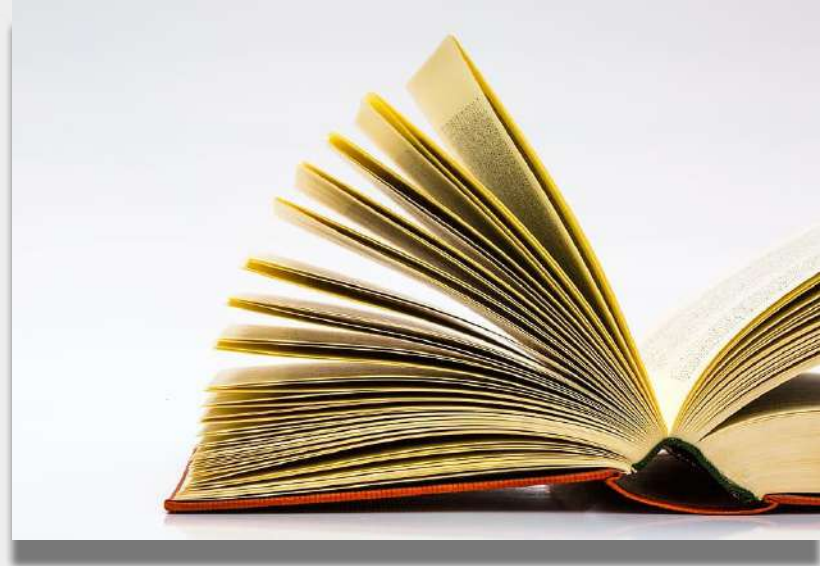
- Types of Chemical Bonds
- Properties of Substance by Bonding Type
- Electrolysis & Electroplating

Evolution of High School Common Texts

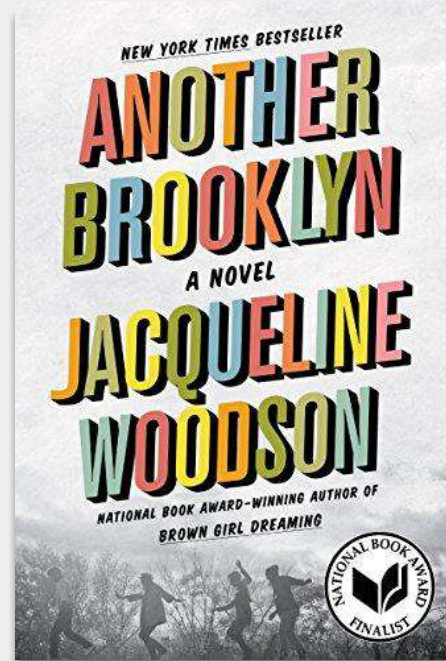
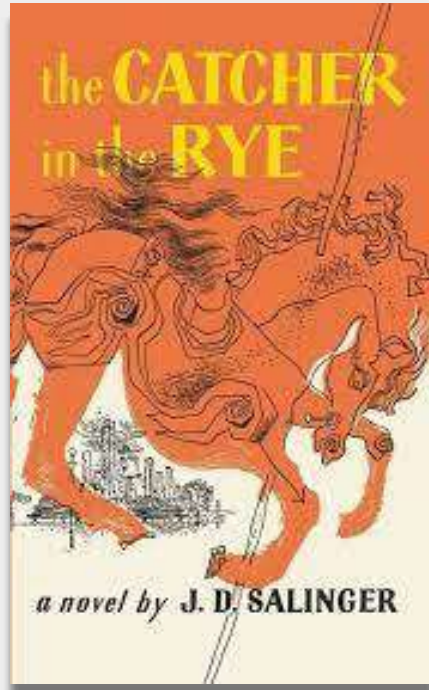
Responsive rather than reactive

Driven by...

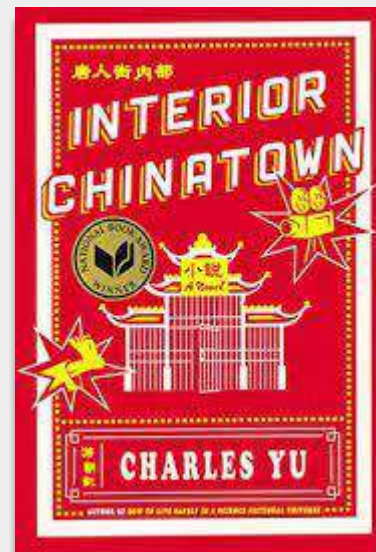
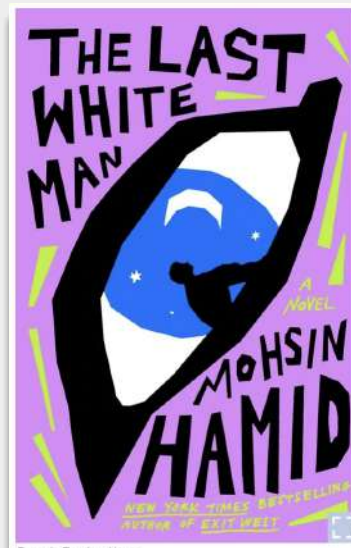
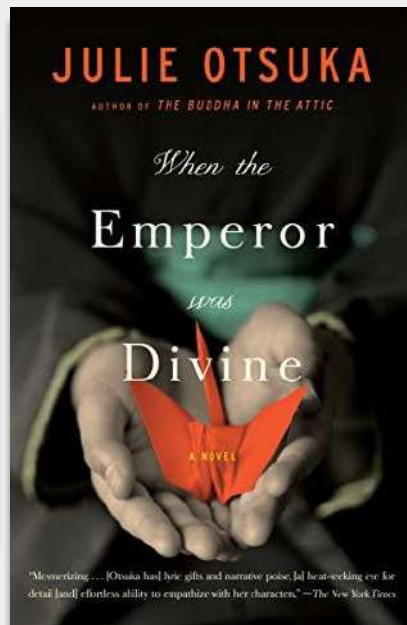
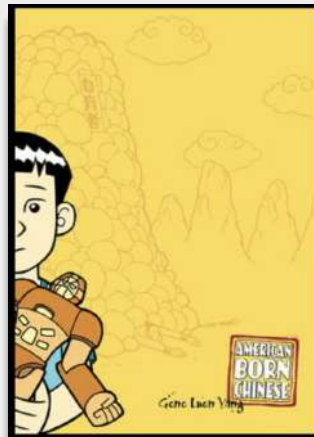
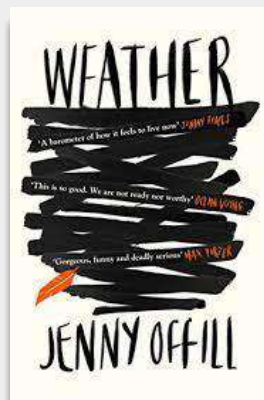
- Quality
- Relevance
- Multiple Perspectives
- Balanced Reflection of Experience
- Criteria for Maintaining



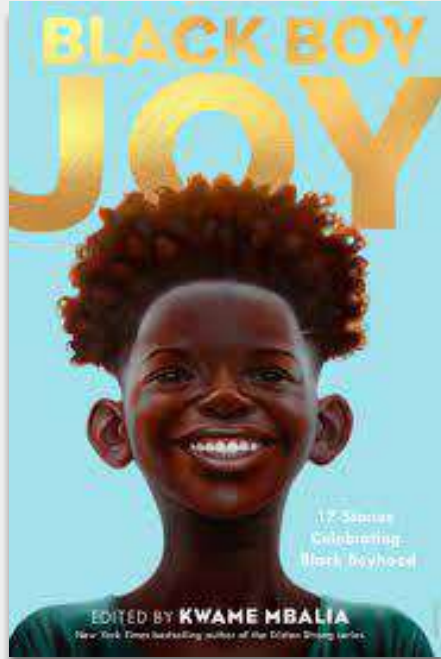
Relevance



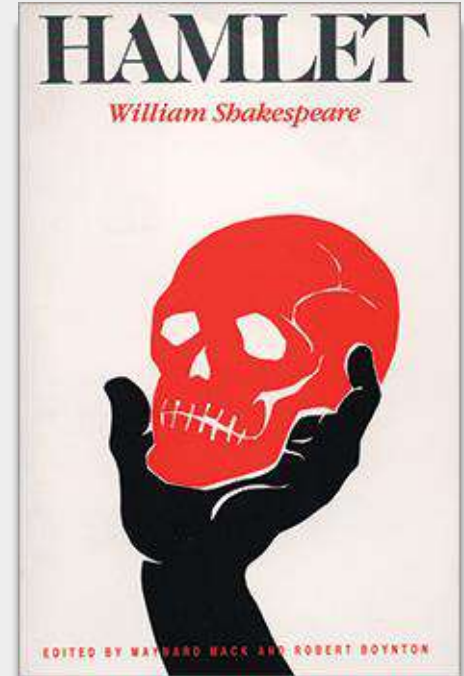
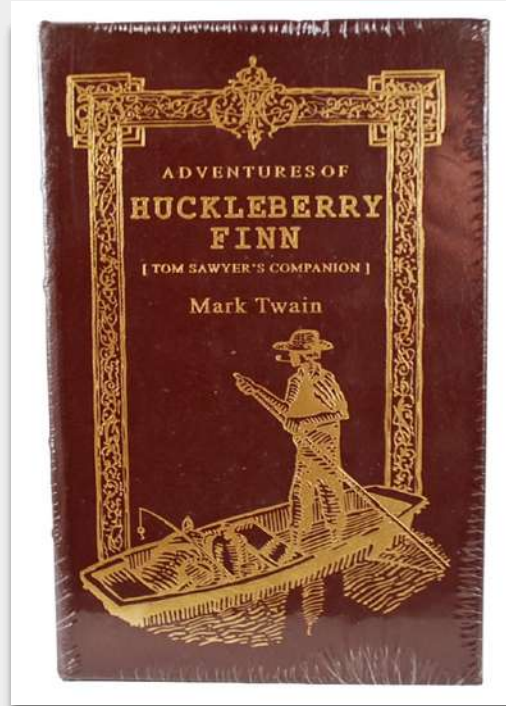
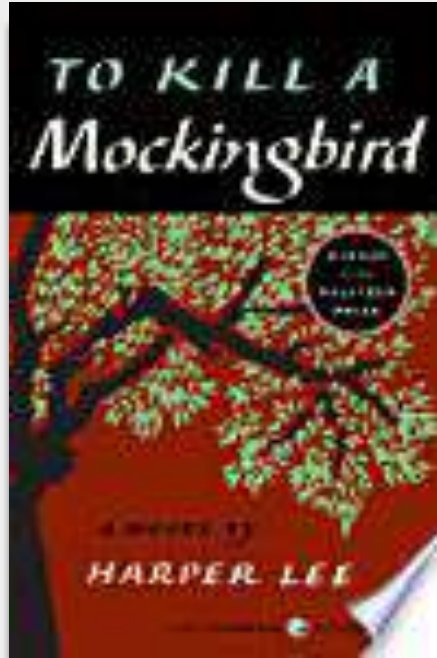
Perspective



Balanced Presentation of Experience



Criteria for Maintaining Texts





Questions