Arlington Public Schools

Gifted Services
Middle School Cluster Model Study (2021-22)

Key Findings and Full Results

Gifted Services – Middle School Cluster Model Study (2021-22)

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Background

This study focuses on the delivery of instruction to middle school students who have been identified as gifted in an academic subject and the corresponding outcomes.

In Arlington Public Schools (APS), middle school students who have been identified as gifted are generally served in the general education classroom through the Cluster Grouping Model, a research-based approach of intentionally grouping students according to their strengths and needs in a mixed ability classroom with a teacher who has the background and understanding of gifted learners and knows how to plan and implement strategies and/or resources written for gifted learners on a daily basis. The grouping size of at least 5 is important as it provides a group of students for which planning will be intentional and ongoing for at least a year of growth. This model is proven to improve teaching, learning, and achievement in all students, especially in schools with strong collaborative learning teams.

There are differences in how clustering works in APS at the middle school level:

- In Mathematics, there are various levels of classes such as Pre-Algebra and Algebra I offered to students in a particular grade level. Gifted students are generally clustered within the various leveled classes.
- In English/Language Arts, Science, and Social Studies students are clustered within heterogeneous classes.

In School Year 2020-21, the APS Department of Planning and Evaluation was tasked with gathering evidence of the impact of the Cluster Grouping Model on the delivery of instruction at the middle school level, including whether students are achieving at least a year of growth.

Planning and Evaluation and the Office of Gifted Services in the Department of Academics collaborated to create a plan to:

- Gather feedback from APS students and instructional staff at the middle school level regarding their experiences.
- Analyze student outcome data.

The first section of this study summarizes the findings. Full analysis of all examined data can be found at the end of this document.

Note: This report does not include data from the 2019-20 school year due to the operational status of APS during the first year of the global pandemic which resulted in a lack of student outcome data. Additionally, 2020-21 data was included when it was available. 2020-21 data is more limited and generally cannot be included in trends from prior years.

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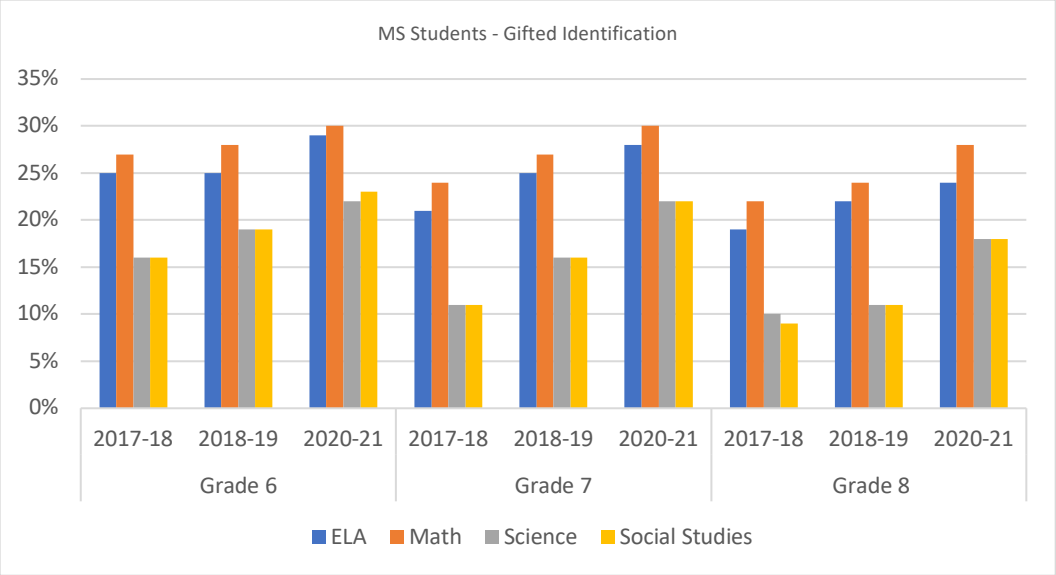
Gifted Identification and Clustering

Middle school students in APS are most likely to be identified as gifted in Mathematics and English/Language Arts with approximately 20% to 30% of students identified. Approximately 10% to 20% of students are identified in Science and Social Studies.

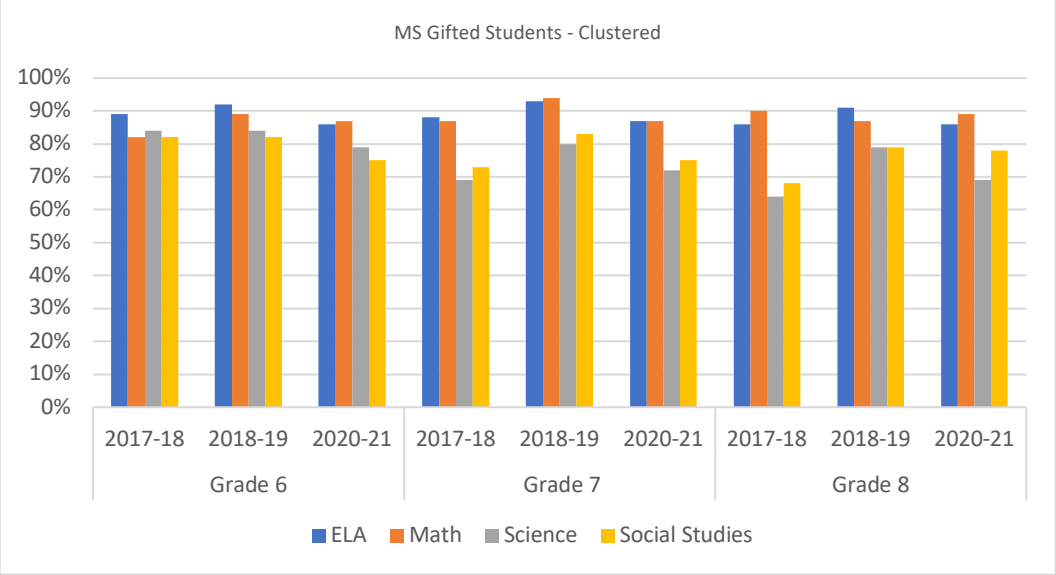
Figure 1 - Percentage of MS Students Identified as Gifted by Content Area and Grade



In APS, students who are identified as gifted are generally in cluster groups; however, there are differences by core subject area:

- English/Language Arts and Mathematics – Approximately 85% to 90% are clustered.
- Science and Social Studies – Approximately 70% to 80% are clustered.

Figure 2 - Percentage of MS Gifted Students Clustered by Content Area and Grade



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General Findings – Data Availability and Reporting

Data on which students were in cluster groups was not readily available within regular APS reporting systems. This poses challenges for ongoing program monitoring, support, and continual improvement at the school level and centrally.

General Findings – Clustering

Students who have been identified as gifted are more likely to be clustered in English/Language Arts and Mathematics than in Science and Social Studies.

- English/Language Arts and Mathematics – Approximately 85% to 90% are clustered.
- Science and Social Studies – Approximately 70% to 80% are clustered.

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Teacher Survey

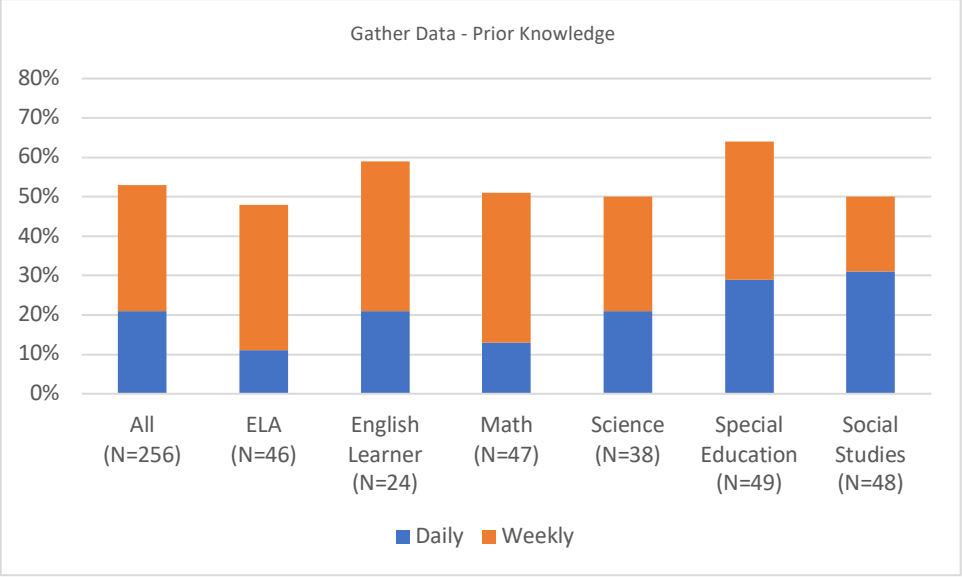
Middle school teachers were surveyed at the end of the 2020-21 school year. This included English/Language Arts, Mathematics, Science, Social Studies, English Learner, and Special Education teachers. The response rate was 68% of teachers (257 of 379 teachers). The margin of error was 3.5%.

The survey was developed with the goal of identifying when teachers typically gather data, how they differentiate instruction, and what they view as obstacles to supporting gifted/advanced learners. Four questions were asked:

- How often do you gather data to assess the prior knowledge of students?
- How often do you adjust learning experiences based on pre-assessments?
- What is the most effective differentiation strategy or resource you have?
- What is the biggest obstacle to providing support to advanced/gifted learners in your class(es)?

53% of all teachers reported gathering data on prior knowledge daily or weekly. This ranged from about 60-65% for Special Education and English Learner teachers to about 50% of English/Language Arts, Mathematics, Science, and Social Studies teachers.

Figure 3 - Teachers: How often do you gather data to assess the prior knowledge of students?



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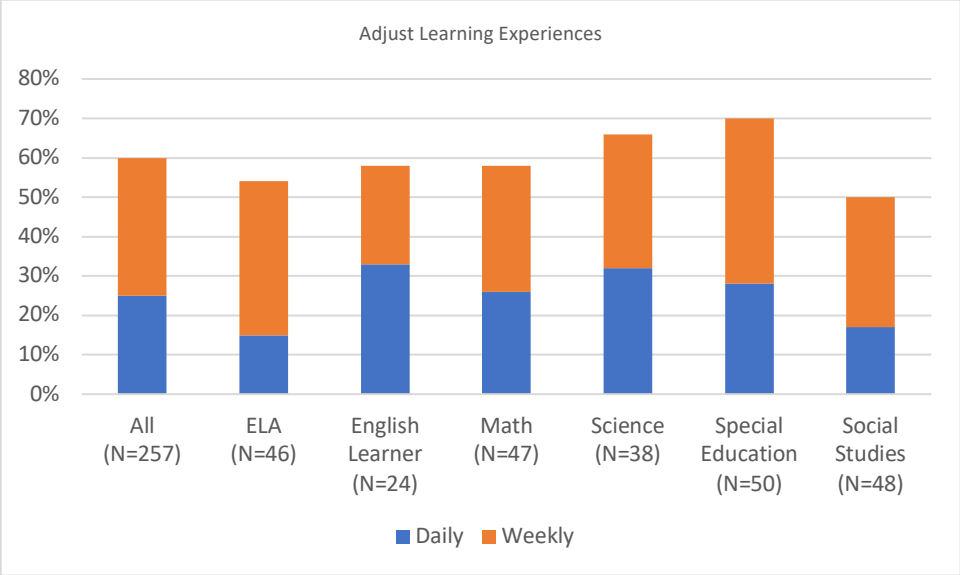
60% of middle school teachers reported adjusting learning experiences daily or weekly based on pre-assessments. This ranged from 65% to 70% for Science and Special Education teachers to 50-60% for English/Language Arts, English Learner, Mathematics, and Social Studies teachers.

Figure 4 - Teachers: How often do you adjust learning experiences based on pre-assessments?



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The table below summarizes the most effective differentiation strategies and resources used when providing support to advanced/gifted learners as identified by APS middle school teachers.

Table 1 - Teachers: What is the most effective differentiation strategy or resource you have used to support advanced/gifted learners?

Response Category	Number of Responses *(N=233)*	%
Providing students with choice of assignment/task	**82**	**35%**
Providing extensions	**36**	**16%**
Differentiating assignments	**33**	**14%**
Providing higher level thinking tasks	**22**	**9%**
Placing students in small groups	**18**	**8%**
Receiving support from the RTG	**14**	**6%**
Using project-based learning assignments	**12**	**5%**
Independent work/research	8	3%
Utilizing learning centers/stations	6	3%
Open-ended assignments	6	3%
Pre-assessments	6	3%
Self-paced computer programs	5	2%
Differentiated assessments	5	2%
Scaffolding	4	2%
Curriculum compacting	3	1%
Using anchor activities	3	1%
One on one teacher student time	3	1%
Personalized learning	3	1%
Workshop model	3	1%
Self-paced instructional modules	3	1%
Having leveled math classes	2	1%
Receiving support from a CLT	2	1%
Teachers who do not currently teach gifted students	9	4%
Other strategies	16	7%
Other	1	Less than 1%

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The table below summarizes the biggest obstacles to providing support to advanced/gifted learners as identified by APS middle school teachers.

Table 2 - Teachers: What is the biggest obstacle to providing support to advanced/gifted learners in your class(es)?

Response Category	Number of Responses *(N=237)*	%
Balancing multiple levels/needs of other students in the class	**55**	**23%**
Needing more planning time/time to create lessons	**41**	**17%**
Gifted students unmotivated for extensions/challenge work	**29**	**12%**
Needing more time	**23**	**10%**
Challenges during virtual/hybrid learning	**19**	**8%**
Having enough time to work with gifted students on extensions/encourage them to take learning risks	**13**	**6%**
Creating meaningful assignments and materials	**12**	**5%**
Class size too large	**11**	**5%**
Finding challenging resources	**9**	**4%**
Issues with clusters/not enough gifted peers in a class	8	3%
Respondents state that there are no challenges	7	3%
The need for additional staff	6	3%
Concerns about providing enough differentiation for gifted students to keep them engaged	5	2%
Concerns about the social and emotional well-being of gifted students	4	2%
Disparity between gifted identification and student performance	4	2%
Having to implement/learn too many new initiatives	3	1%
Needing more RTG time with students	2	1%
Gifted students should be in a separate class	2	1%
Teachers who do not currently teach gifted students	10	4%
Other challenges	11	5%

Gifted Services – Middle School Cluster Model Study (2021-22)

General Findings – Teachers: Data and Differentiation

- A majority of middle school teachers reported gathering data to assess the prior knowledge of students either daily or weekly. This varied by subject and program area.

- 60% of middle school teachers reported adjusting learning experiences based on pre-assessments either daily or weekly. This varied by subject and program area.

- Teachers reported that the most effective differentiation strategy or resource to support advanced/gifted students was providing students with a choice of assignment/task.

    - Other top strategies included:
        - Providing extensions
        - Differentiating assignments
        - Providing higher level thinking tasks
        - Placing students in small groups
        - Receiving support from the RTG
        - Using project-based learning assignments

- Teachers reported that the biggest obstacle to serving advanced/gifted learners was balancing multiple levels/needs of other students in the class.

    - Other top challenges included:
        - Needing more planning time/time to create lessons
        - Gifted students unmotivated for extensions/challenge work
        - Needing more time
        - Challenges during virtual/hybrid learning
        - Having enough time to work with gifted students on extensions/encourage them to take learning risks
        - Creating meaningful assignments and materials
        - Class size too large
        - Finding challenging resources

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Student Survey

Middle school students were surveyed at the end of the 2020-21 school year about their learning experiences in English/Language Arts, Mathematics, Science, and Social Studies. 49% of middle school students responded to the survey (2953 of 6056 students). The margin of error was 1.3%.

The survey was designed to gather student opinions on their learning experiences in their core content area courses as well as determine what additional opportunities they would like to have.

Four questions asked students to rank their experiences for each core subject area:

- My classes require me to think at a higher level or solve problems critically and creatively.
- I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.).
- How often you get opportunities to learn something new that you don't already know?
- How often you have opportunities or choices to explore an interest area or go deeper into topics?

One open-ended question asked students about additional supports and experiences:

- What other supports or opportunities would you like to have in Math, English/Language Arts, Science, and Social Studies?

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Most gifted students agreed that they are required to think at a higher level or solve problems critically and creatively in core content areas. Agreement varied by content area and clustering:

Core Content Area	All Gifted Students	Clustered Students
English/Language Arts	76%	No Difference
Mathematics	92%	6% Higher than Non-Clustered
Science	77%	9% Higher than Non-Clustered
Social Studies	75%	7% Higher than Non-Clustered

Figure 5 - Gifted Students: My classes require me to think at a higher level or solve problems critically and creatively.

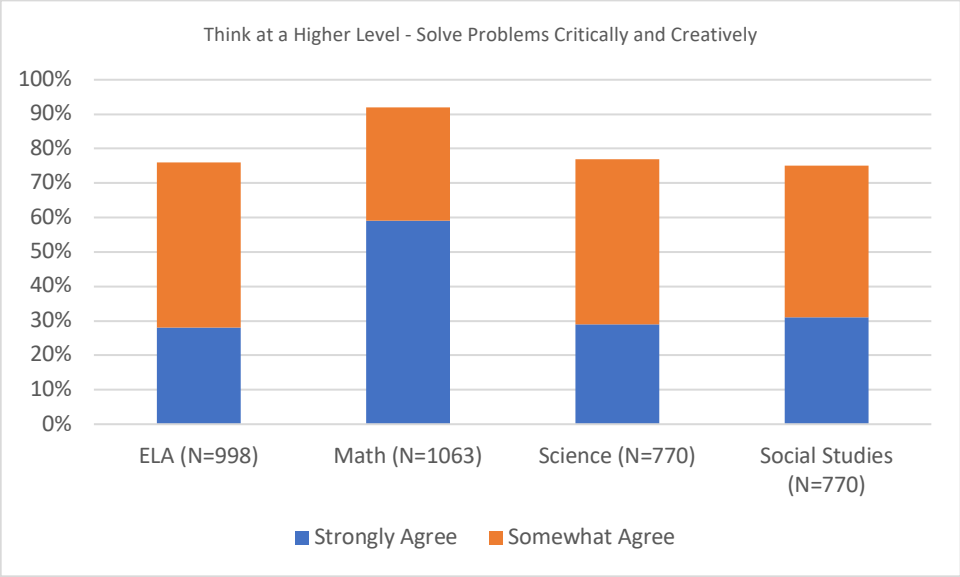
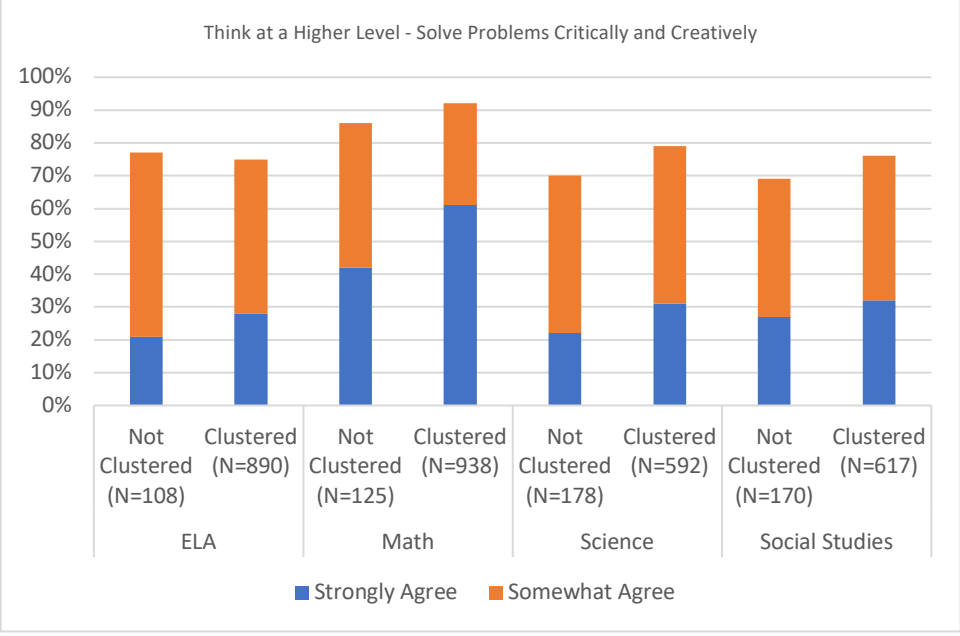


Figure 6 - Gifted Students: My classes require me to think at a higher level or solve problems critically and creatively. (By Cluster Status)



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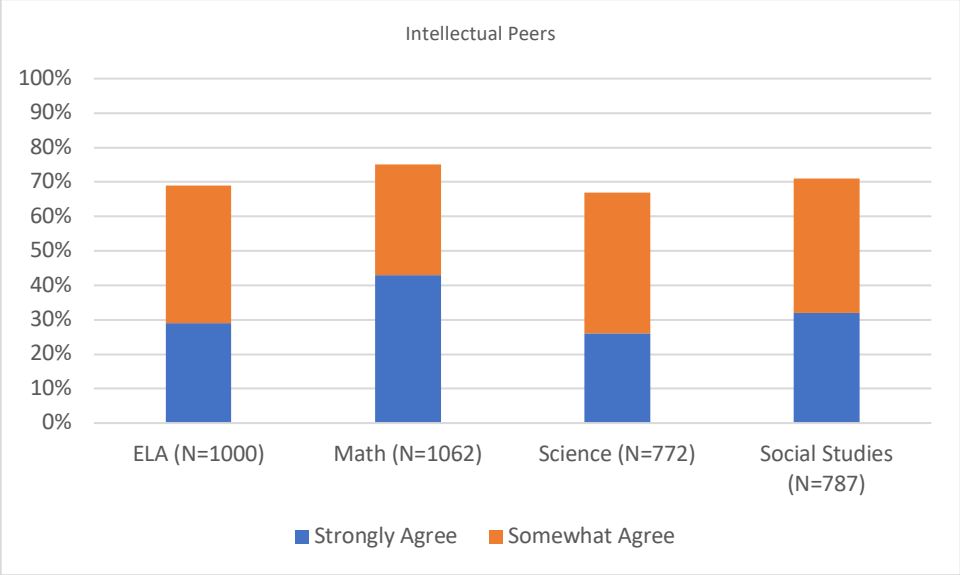
A majority of gifted middle school students agreed that they are in classes with other students who they consider intellectual peers. There were differences by content area:

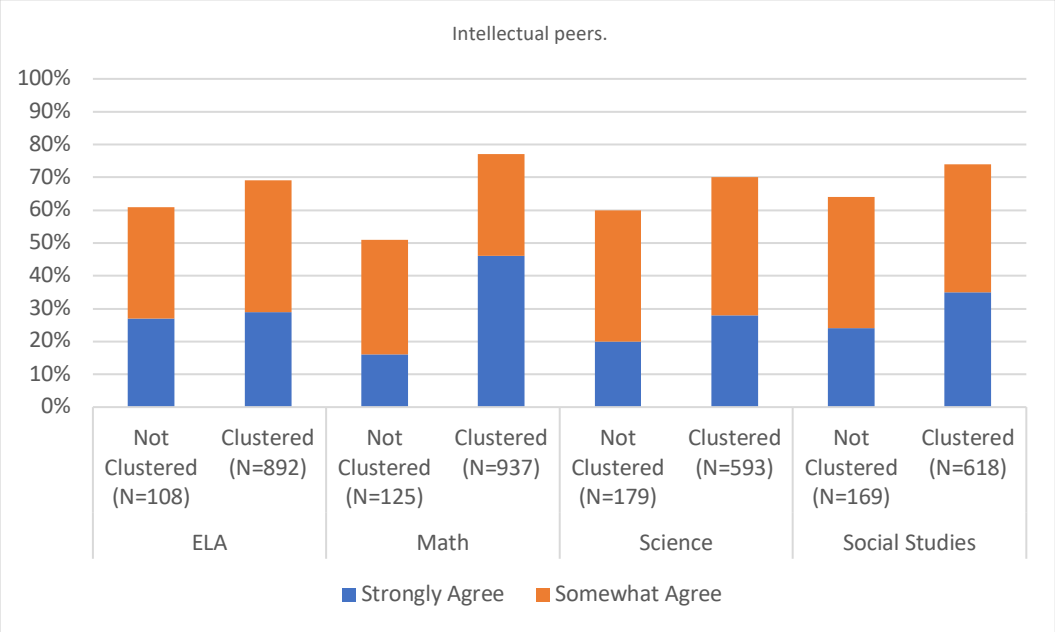
- Mathematics – 75%
- Social Studies – 71%
- English/Language Arts – 69%
- Science – 67%

Figure 7 - Gifted Students: I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.).



Gifted students in each of the core content areas reported being with their intellectual peers at higher rates when clustered.

Figure 8 - Clustered Gifted Students: I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.). (By Cluster Status)



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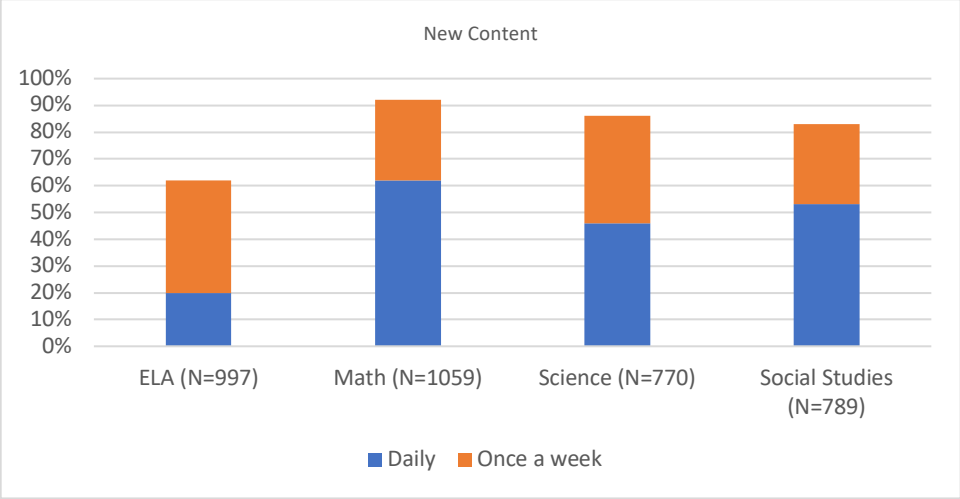
A majority of gifted students reported having opportunities to learn something they did not already know either daily or weekly. This varied by subject:

- Mathematics – 92%
- Science – 86%
- Social Studies – 83%
- English/Language Arts 62%

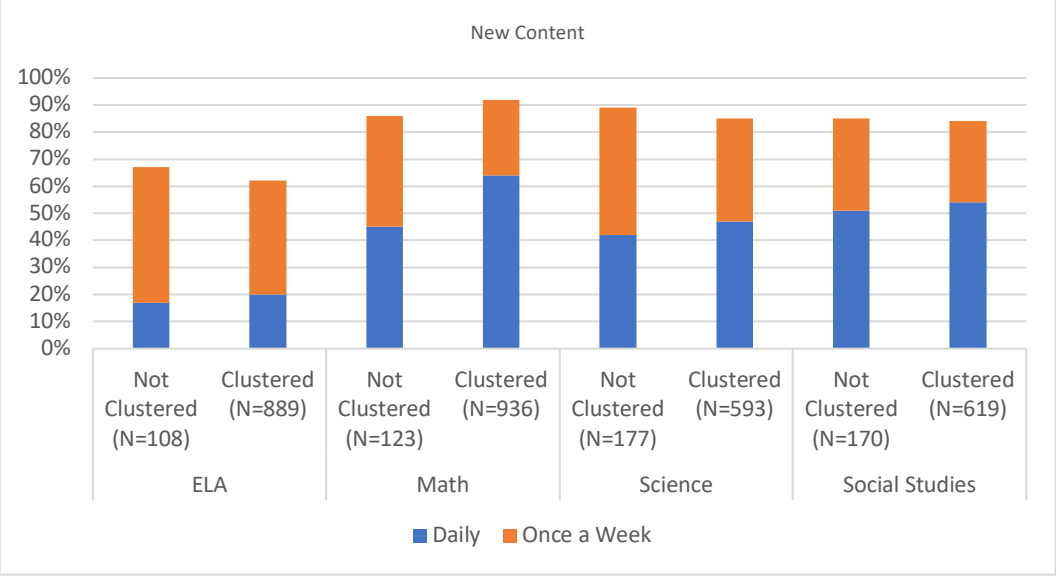
Figure 9 - Gifted Students: How often do you have opportunities to learn something new that you don't already know?



A majority of gifted students reported learning something new daily or weekly in all core content areas, with differences based on clustering:

- Mathematics – higher rate for clustered students (92% clustered, 86% non-clustered)
- Social Studies – similar rates for clustered and non-clustered students (about 85%)
- Science – lower rates for clustered students (85% clustered, 89% non-clustered)
- English/Language Arts – lower rates for clustered students and approximately 20% below other core subject areas (62% clustered, 67% non-clustered).

Figure 10 - Clustered Gifted Students: How often do you have opportunities to learn something new that you don't already know? (By Cluster Status)



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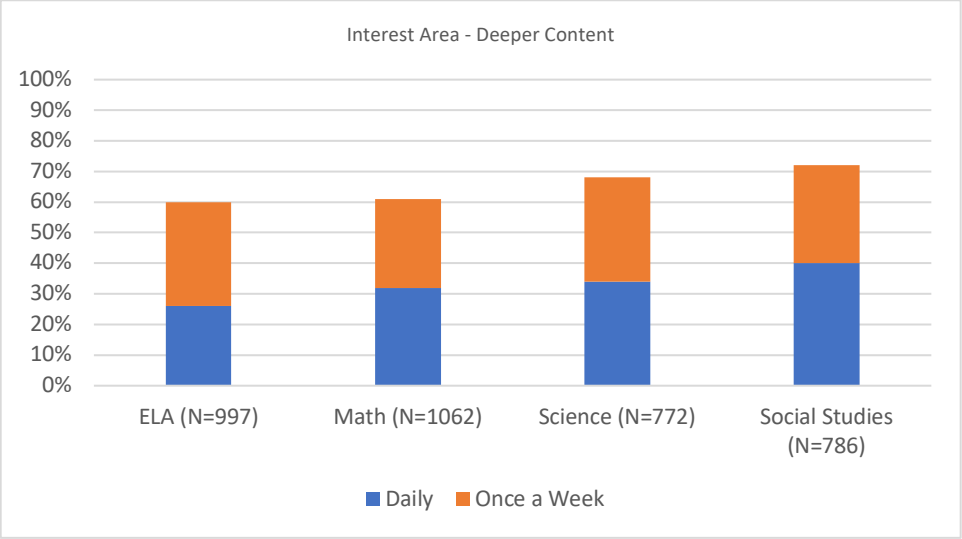
Gifted students generally reported having opportunities or choices to explore an interest area or to go deeper into topics either daily or weekly. This varied by core content area:

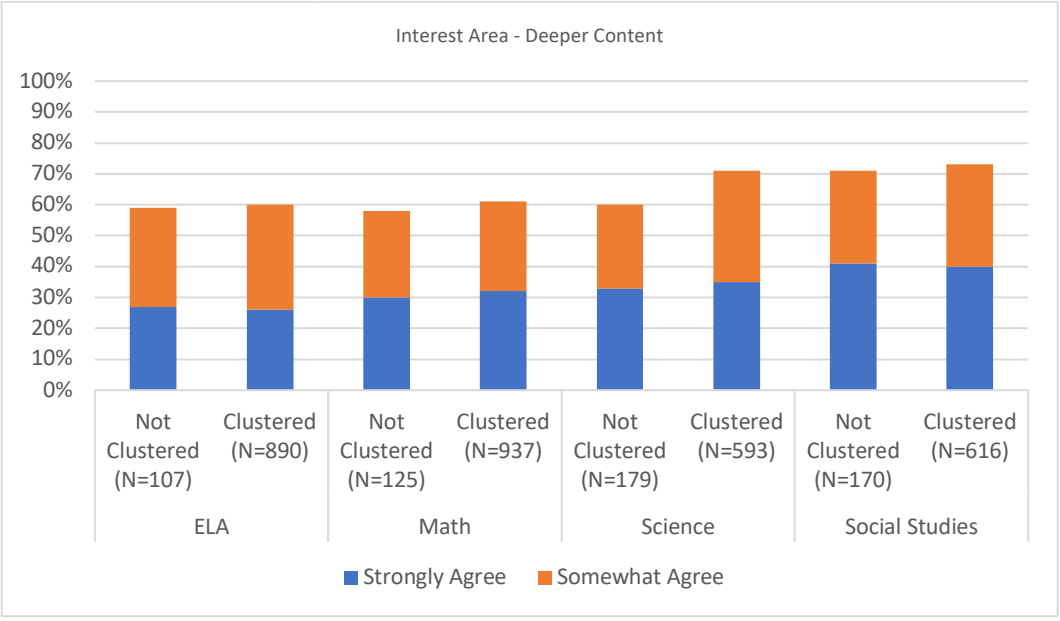
- Social Studies – 72%
- Science – 68%
- Mathematics – 61%
- English/Language Arts – 60%

Figure 11 - Gifted Students: How often you have opportunities or choices to explore an interest area or go deeper into topics?



Students identified as gifted in science reported having greater opportunities and choices to explore an interest area or go deeper into topics when clustered (71% clustered, 60% non-clustered). For other core subject areas there was little difference between the clustered classes and the non-clustered classes.

Figure 12 - Clustered Gifted Students: How often you have opportunities or choices to explore an interest area or go deeper into topics? (By Cluster Status)



Gifted Services – Middle School Cluster Model Study (2021-22)

General Findings – Students: Learning Experiences

Students Identified as Gifted

- More than 75% of students agreed that their classes require them to think at a higher level or solve problems critically and creatively in all content areas. Students with a gifted identification in Mathematics were most likely to agree at over 90%.

- Most students agreed that they are in classes with other students who they view as their intellectual peers. Students identified as gifted in Mathematics were most likely to agree.

- A significant majority of students feel that they get opportunities to learn something new that they do not already know daily or weekly in Mathematics, Science, and Social Studies. Students identified as gifted in mathematics reported this most frequently. Fewer English/Language Arts students reported this although a majority agreed.

- A majority of students indicated that they have opportunities or choices to explore an interest area or go deeper into topics either daily or weekly. Students identified in Social Studies and Science reported this most frequently.

Students Identified as Gifted in Cluster Groups

- Gifted students in cluster groups in Mathematics, Science, and Social Studies agreed that their classes require them to think at a higher level or solve problems critically and creatively at higher rates than gifted students not in cluster groups. Students with a gifted identification in Mathematics in cluster groups were most likely to agree at over 90%. Students in English/Language Arts cluster groups responded similarly to students not in cluster groups.

- In all core content areas, gifted students who are clustered agreed that they are in classes with other students who they view as their intellectual peers as compared to students not in cluster groups.

- Clustered students reported mixed results by core content area when asked if they feel that they get opportunities to learn something new that they do not already know. Students reporting daily or weekly opportunities were:
    - Higher in Mathematics for clustered students than non-clustered students
    - Similar in Science and Social Studies for clustered and non-clustered students
    - Lower in English/Language Arts for clustered students than for non-clustered students.

- Students clustered in Science indicated that they have opportunities or choices to explore an interest area or go deeper into topics either daily or weekly than non-clustered students. Clustered and non-clustered students reported having similar opportunities in English/Language Arts, Mathematics, and Social Studies.

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The table below summarizes the additional supports and opportunities that Gifted and Non-Gifted students indicated they would like to have in core content area classes. This data was also reviewed by cluster status. Due to the small number of non-clustered student responses, comparisons by cluster status were not possible.

Table 3 - What other supports or opportunities would you like to have in Math, English/Language Arts, Science, and Social Studies?

Response Category	Gifted *(N = 648)*	%	Non-Gifted *(N = 682)*	%
Projects	**45**	**7%**	43	6%
More challenging material	**40**	**6%**	19	3%
Opportunities in interest areas	**40**	**6%**	19	3%
Hands-on / Interactive	**36**	**6%**	40	6%
New content or classes	**36**	**6%**	35	5%
Advanced content or classes	**31**	**5%**	12	2%
Group activities	**30**	**5%**	43	6%
Assignment choice	**24**	**4%**	23	3%
More time on topics and assignments	**20**	**3%**	30	4%
Discussion	**20**	**3%**	16	2%
Easier or less work	**19**	**3%**	28	4%
In-depth learning	**18**	**3%**	15	2%
Independent or extension	**17**	**3%**	3	Less than 1%
Fun and games	14	2%	28	4%
Know / learn / explore more	14	2%	26	4%
Writing opportunities	13	2%	8	1%
New learning strategies	10	2%	13	2%
Creativity	10	2%	6	1%
Videos and visuals	10	2%	6	1%
Better instruction or instructors	10	2%	7	1%
Use more books	10	2%	4	1%
Personal talk-time with peers	9	1%	10	1%
Better resources and materials	9	1%	5	1%
Research	9	1%	1	Less than 1%
More access to teachers	7	1%	10	1%
More clustering	7	1%	2	Less than 1%
More teacher explanation	6	1%	15	2%
Different learning environments	5	1%	19	3%
Extracurricular academic activities	5	1%	2	Less than 1%
Gifted services and supports	5	1%	0	0%
Practical information and skills	4	1%	9	1%
Contests	4	1%	1	Less than 1%
Critical thinking	4	1%	1	Less than 1%
Review activities	3	Less than 1%	9	1%

Classroom atmosphere/climate	3	Less than 1%	3	Less than 1%
Problem-based learning	3	Less than 1%	1	Less than 1%
Extra credit	2	Less than 1%	4	1%
Differentiation	2	Less than 1%	3	Less than 1%
More asynchronous work	2	Less than 1%	3	Less than 1%
More practice opportunities	1	Less than 1%	5	1%
Motivation	1	Less than 1%	2	Less than 1%
No additional supports (status quo)	65	10%	81	12%
Other	25	4%	72	11%
Unclear	28	--	79	--
Don't know	124	--	248	--
NA / None	181	--	277	--

General Findings – Students: Requested Supports and Opportunities

Gifted students indicated most often that they would like the following supports and opportunities in their core classes:

- Projects
- More challenging material
- Opportunities in interest areas
- Hands-on / Interactive
- New content or classes
- Advanced content or classes
- Group activities
- Assignment choice
- More time on topics and assignments
- Discussion
- Easier or less work
- In-depth learning
- Independent or extension

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Gifted Student Outcome Data – Standards of Learning Tests

The Standards of Learning assessments (SOL) are state-mandated tests administered to students in Virginia that measure student mastery of basic academic content at each grade level. The Virginia Department of Education identifies the SOLs as "the minimum grade level and subject matter educational objectives, described as the knowledge and skills necessary for success in school and for preparation for life, that students are expected to meet in Virginia public schools and specified by the Standards of Quality."

Impact of the Global Pandemic on SOL Testing in Virginia and in APS

Virginia Department of Education Note Regarding 2020-2021 Test Administration

"SOL test results for 2020-2021 reflect reduced student participation in state assessments due to COVID-19 and other pandemic-related factors. Variations in participation rates and learning conditions should be considered when reviewing 2020-2021 assessment data."

Testing Participation in APS

In a typical year, less than 1% of students in APS who are identified as gifted in any core content area do not take an SOL test. During 2020-21, the percentage of gifted students not taking an SOL increased to between 7% and 12.7%. This significant decrease in SOL participation must be considered when using 2020-21 APS performance data. 2020-21 data cannot be directly compared with trends from prior years.

Table 4 - Percentage of APS Gifted Students Without an SOL Score by Year

Grade	Year	Reading	Math	Science
6	2017-18	0.2%	0.2%	
	2018-19	0.2%	0.5%	
	2020-21	**7.3%**	**7.0%**	
7	2017-18	0.0%	0.0%	
	2018-19	0.2%	0.0%	
	2020-21	**12.6%**	**8.8%**	
8	2017-18	0.3%	0.7%	0.0%
	2018-19	0.7%	1.9%	0.5%
	2020-21	**9.7%**	**7.7%**	**12.7%**

In 2020-21, Virginia did not offer writing or social studies testing.

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English/Language Arts (Reading and Writing)

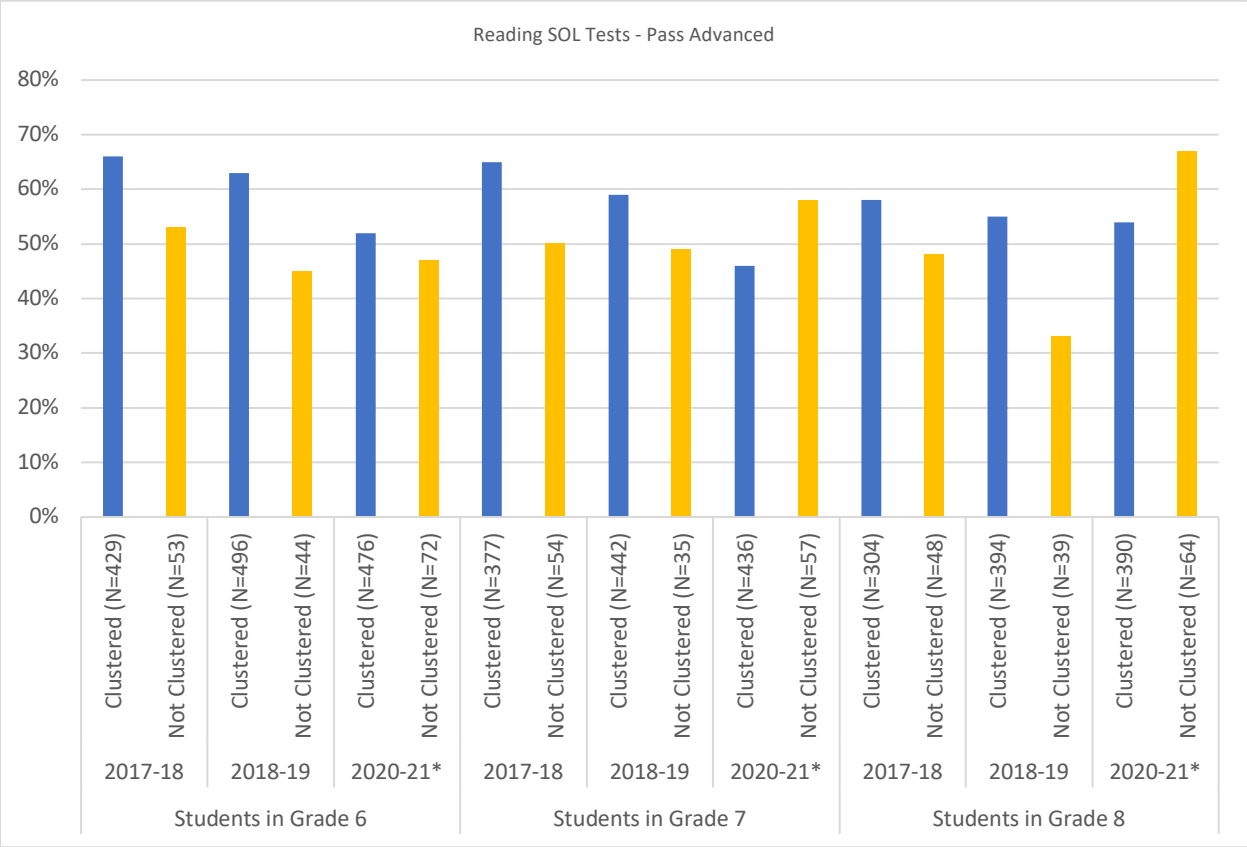
On Virginia Standards of Learning Reading Tests, students identified as gifted in English/Language Arts who were in cluster groups earned Pass-Advanced scores at higher rates than their non-clustered peers in 2017-18 and 2018-19. There were no SOL tests in 2019-20 and testing was not universal in 2020-21 due to the global pandemic. In 2020-21 clustered students outperformed in Grade 6 by a smaller margin and scored below their non-clustered peers in Grade 7 and Grade 8.

Table 5 - Reading Pass-Advanced Rates – Clustered Student Performance

	2017-18	**2018-19**	***2020-21****
Grade 6	13% Higher	18% Higher	*5% Higher** *7.3% of gifted students not tested*
Grade 7	15% Higher	10% Higher	*12% Lower** *12.6% of gifted students not tested*
Grade 8	10% Higher	22% Higher	*13% Lower** *9.7% of gifted students not tested*

**Participation in SOL testing by APS gifted students decreased. See VDOE note about use of 2020-21 SOL data.*

Figure 13 - Reading Standards of Learning Tests – Pass Advanced Rates (Gifted MS Students)



**Participation in SOL testing by APS gifted students decreased. See VDOE note about use of 2020-21 SOL data.*

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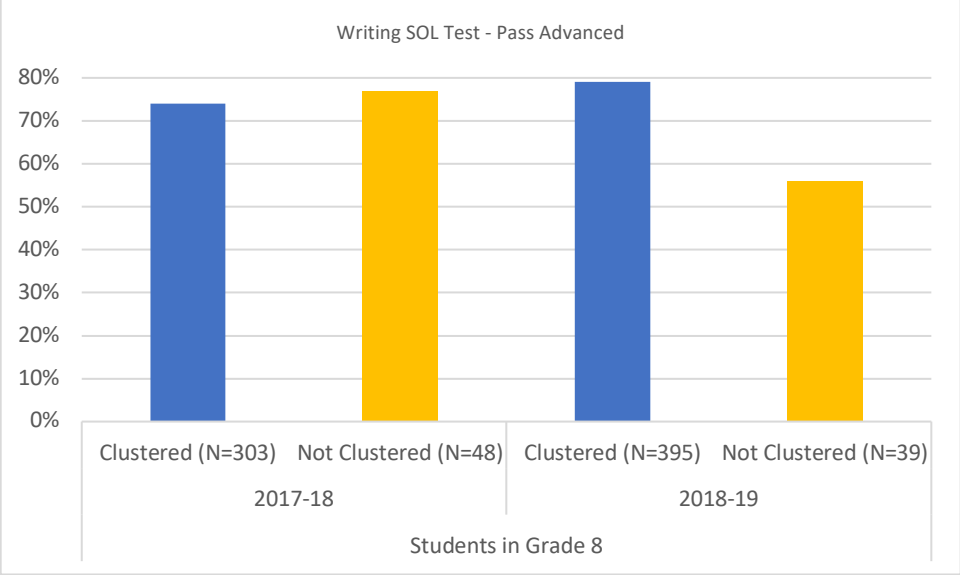
On the Virginia Standards of Learning Grade 8 Writing Test, students identified as gifted in English/Language Arts who were in cluster groups earned Pass-Advanced scores at similar rates as their non-clustered peers in 2017-18. In 2018-19, clustered students earned Pass-Advanced scores at higher rates.

- 2017-18 Pass-Advanced – Clustered 3% Lower (74% Clustered, 77% Non-Clustered)
- 2018-19 Pass-Advanced – Clustered 23% Higher (79% Clustered, 56% Non-Clustered)
- 2019-20 and 2020-21 – Virginia did not offer Grade 8 Writing SOL Tests

Figure 14 - Writing Standards of Learning Tests – Pass Advanced Rates (Gifted MS Students)



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Mathematics

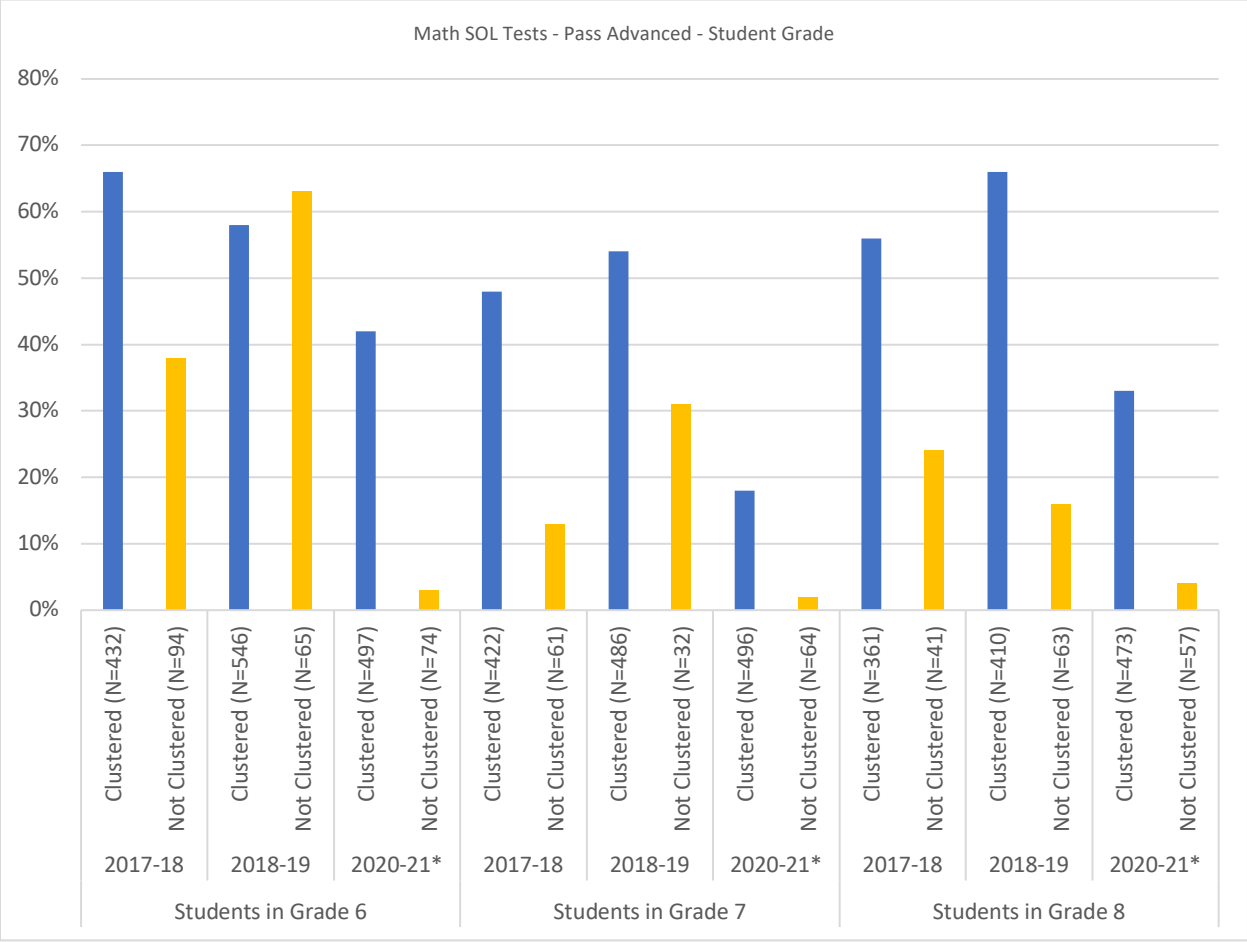
On Virginia Standards of Learning Mathematics Tests, students identified as gifted in Mathematics who were in cluster groups earned Pass-Advanced scores at higher rates than their non-clustered peers in 2017-18 and 2018-19. There were no SOL tests in 2019-20 and testing was not universal in 2020-21 due to the global pandemic. In 2020-21 clustered students who took mathematics SOL tests achieved higher Pass-Advanced rates than their non-clustered peers. Note that the tables and figures below are by student grade level, not by course.

Table 6 - Mathematics Pass-Advanced Rates – Clustered Student Performance (by Grade Level)

	2017-18	**2018-19**	***2020-21****
Grade 6	28% Higher	5% Lower	*39% Higher** *7% of gifted students not tested*
Grade 7	35% Higher	23% Higher	*16% Higher** *8.8% of gifted students not tested*
Grade 8	32% Higher	50% Higher	*29% Higher** *7.7% of gifted students not tested*

**Participation in SOL testing by APS gifted students decreased. See VDOE note about use of 2020-21 SOL data.*

Figure 15 - Mathematics Standards of Learning Tests– Pass Advanced Rates (Gifted Students by Grade Level)



**Participation in SOL testing by APS gifted students decreased. See VDOE note about use of 2020-21 SOL data.*

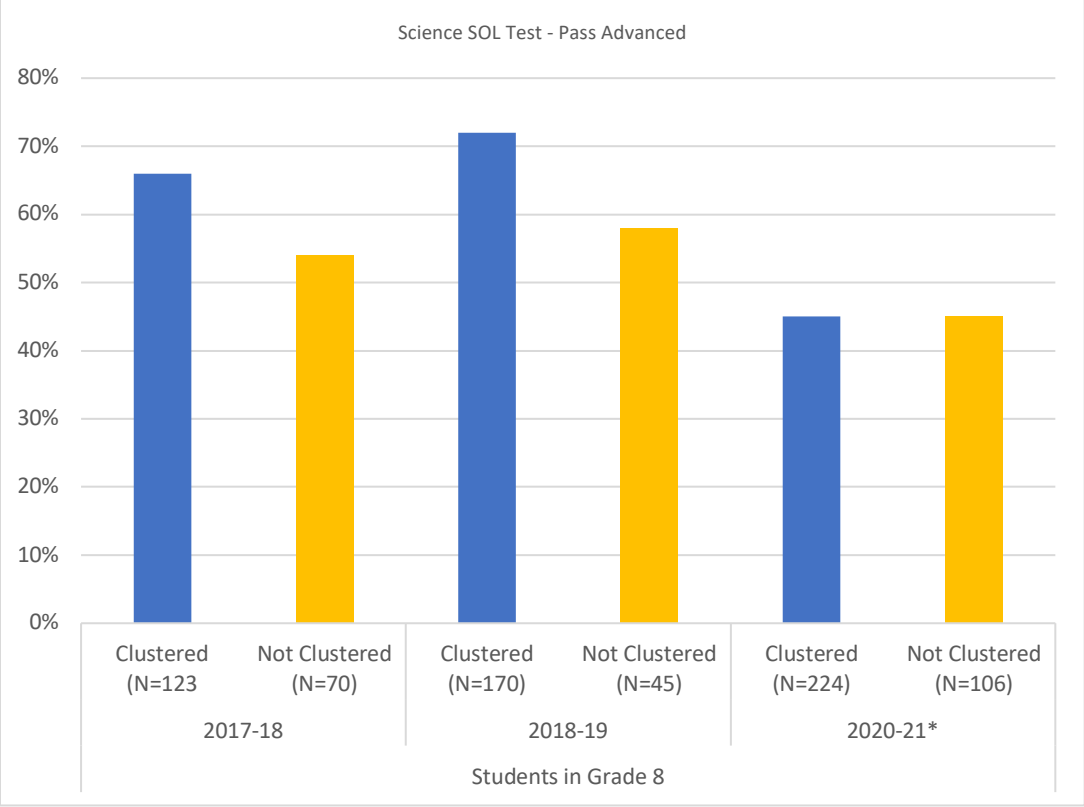
Gifted Services – Middle School Cluster Model Study (2021-22)

Science

On the Virginia Standards of Learning Grade 8 Science Test, students identified as gifted in Science who were in cluster groups earned Pass-Advanced scores at higher rates than their non-clustered peers in 2017-18 and 2018-19. There were no SOL tests in 2019-20 and testing was not universal in 2020-21 due to the global pandemic. In 2020-21 clustered students performed similarly to their non-clustered peers.

- 2017-18 Pass-Advanced – Clustered 12% Higher (66% Clustered, 54% Non-Clustered)
- 2018-19 Pass-Advanced – Clustered 14% Higher (72% Clustered, 58% Non-Clustered)
- 2019-20 – Virginia did not offer Grade 8 Science Tests
- *2020-21 Pass-Advanced* – Clustered and Non-Clustered performance was the same (45%)*
    - *12.7% of gifted students were not tested.*

Figure 16 - Grade 8 Science Standards of Learning Tests – Pass-Advanced Rates (Gifted Students)



**Participation in SOL testing by APS gifted students decreased. See VDOE note about use of 2020-21 SOL data.*

Gifted Services – Middle School Cluster Model Study (2021-22)

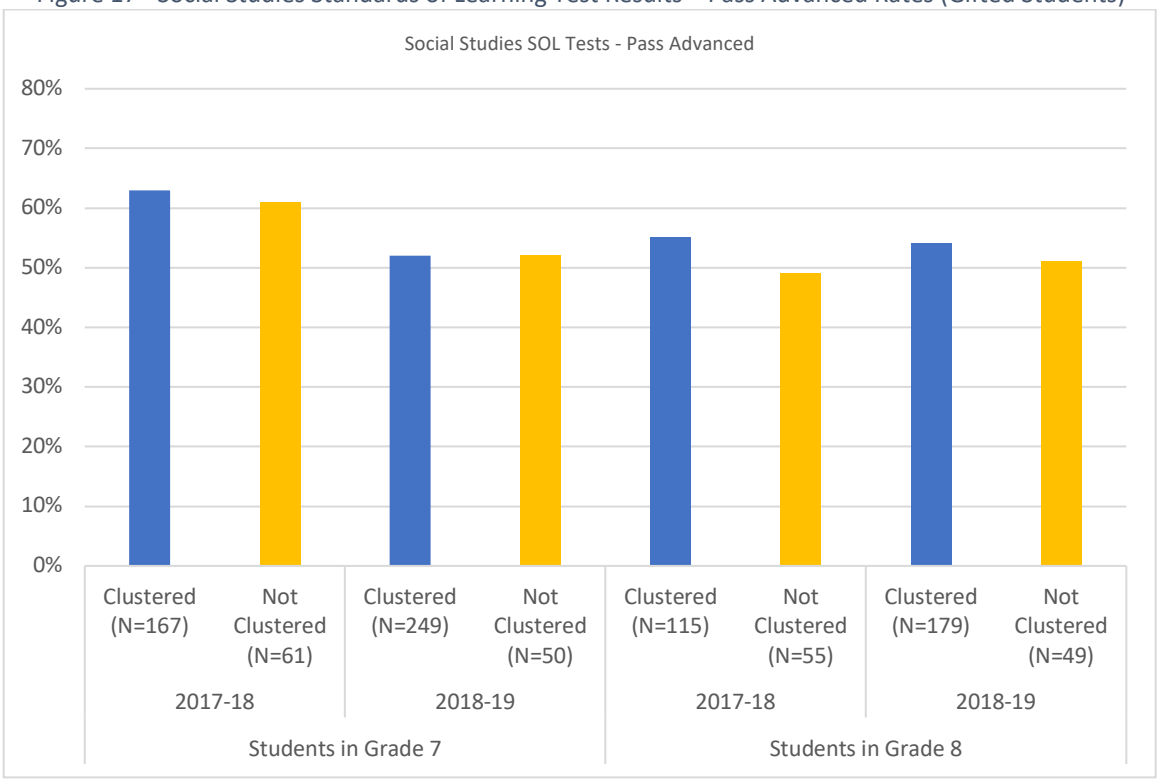
Social Studies

On the Virginia Standards of Learning Grade 8 Social Studies Test, students identified as gifted in Social Studies who were in cluster groups earned Pass-Advanced scores at higher rates than their non-clustered peers in 2017-18 and 2018-19. There were no SOL tests in 2019-20 or in 2020-21 due to the global pandemic.

Table 7 - Social Studies Pass-Advanced Rates – Clustered Student Performance

	2017-18	**2018-19**
Grade 7	2% Higher	No Difference
Grade 8	6% Higher	3% Higher

Figure 17 - Social Studies Standards of Learning Test Results – Pass Advanced Rates (Gifted Students)



Gifted Services – Middle School Cluster Model Study (2021-22)

General Findings – Standards of Learning Performance

Gifted students who were clustered generally outperformed their non-clustered peers on Virginia Standards of Learning Tests during years with normal instruction and testing. There are differences by core content area.

- English/Language Arts Reading – 10% to 20% higher
- English/Language Arts Writing – 0% and 23% *(only two data points)*
- Mathematics – Generally about 20% to 35% higher
- Science – 12% and 14% *(only two data points)*
- Social Studies – 0% to 6% higher

Gifted Services – Middle School Cluster Model Study (2021-22)

Gifted Student Outcome Data – Reading Inventory and Math Inventory

Reading Inventory

The Reading Inventory (RI) is a computer-adaptive reading assessment that measures reading comprehension using Lexile measures. Lexile measures indicate a student's reading level and can be used to match readers with appropriately leveled text. The Reading Inventory is administered in the fall, winter, and spring to measure students' growth during the school year. The expected growth within a school year is 75 Lexiles when comparing fall and spring scores. Additionally, students are placed into proficiency bands of Below Basic, Basic, Proficient, and Advanced.

Most students identified as gifted in English/Language Arts have a fall score and a spring score that can be compared for growth, although there are years with lower participation in the spring.

Table 8 - Number of Gifted Students Taking the Reading Inventory

Grade	Year	Identified as Gifted in ELA	Gifted with an RI Score (Fall)	Gifted with an RI Score (Spring)	Gifted Students with Fall and Spring Scores
6	2017-18	483	483	464	459
	2018-19	541	537	298	297
	2020-21	591	577	580	567
7	2017-18	431	425	424	418
	2018-19	478	465	337	327
	2020-21	564	555	547	541
8	2017-18	353	349	343	340
	2018-19	436	428	425	418
	2020-21	503	497	392	388

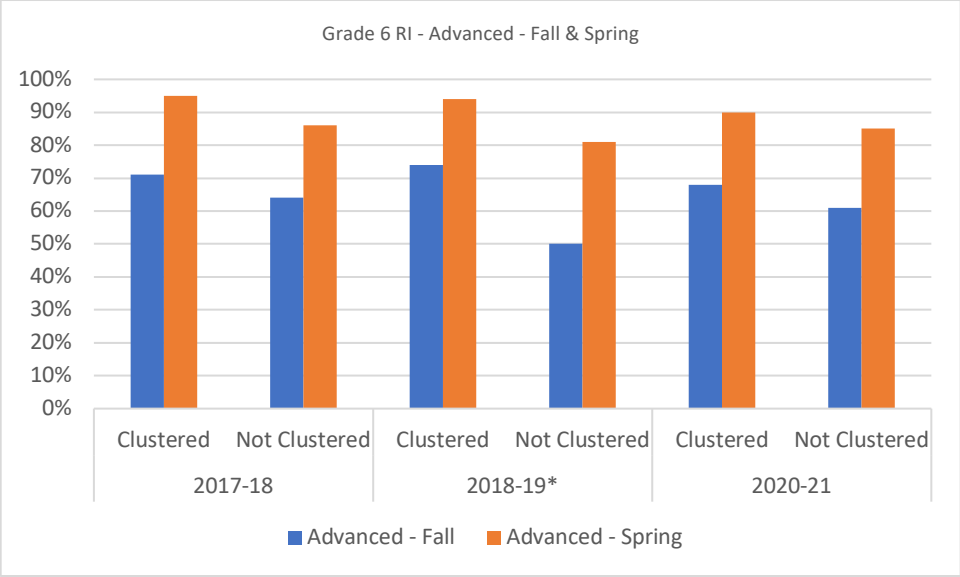
Gifted Services – Middle School Cluster Model Study (2021-22)

Most gifted students who have been given RI achieved in the Advanced performance band by the spring of each school year. There were increases for both clustered and non-clustered students.

In Grade 6:

- 90% to 95% of clustered students achieved at the Advanced level in the spring.
- 81% to 86% of non-clustered students achieved at the Advanced level in the spring.
- From the fall to the spring, the cohort of clustered students and the cohort of non-clustered students achieving in the Advanced proficiency band increased by about 20 to 25 percentage points.

Figure 18 - Reading Inventory Results – Grade 6 Advanced Performance Band (Gifted Students)



**Note that in 2018-19, a smaller number of gifted students took the RI in the spring than in other years. This year showed the highest movement to the Advanced level but is an outlier when compared to the other years.*

Gifted Services – Middle School Cluster Model Study (2021-22)

In Grade 7 and Grade 8:

- Generally, 90% to 95% of clustered students scored in the Advanced proficiency band in the fall and 95% or more achieved at the Advanced level in the spring.
- About 85% to 90% of non-clustered students scored in the Advanced proficiency band in the fall and 90% or more achieved at the Advanced level in the spring.
- There was about a 3-to-5-point increase in the percentage of clustered and non-clustered students achieving at the Advanced level when comparing the fall and spring results.

Figure 19 - Reading Inventory Results – Grade 7 Advanced Performance Band (Gifted Students)

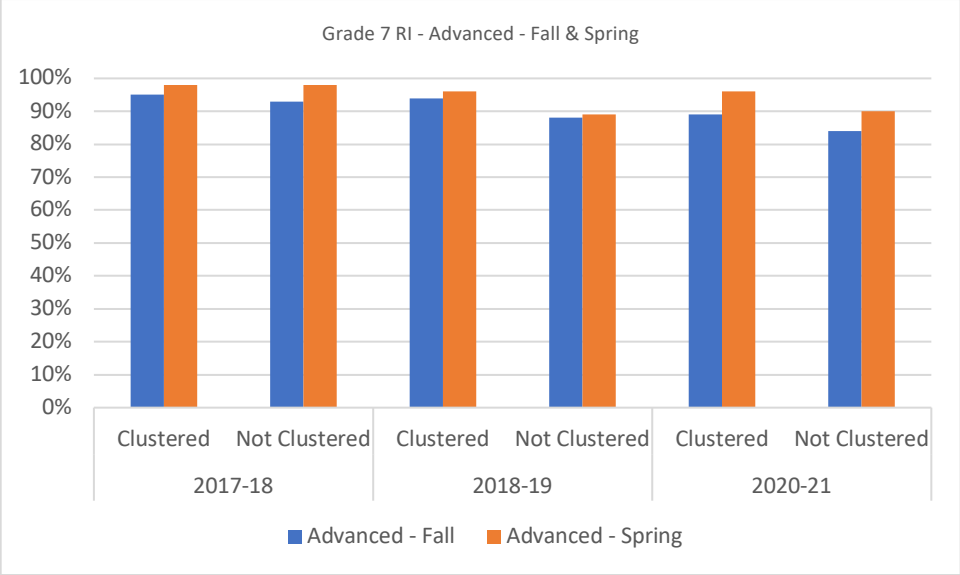
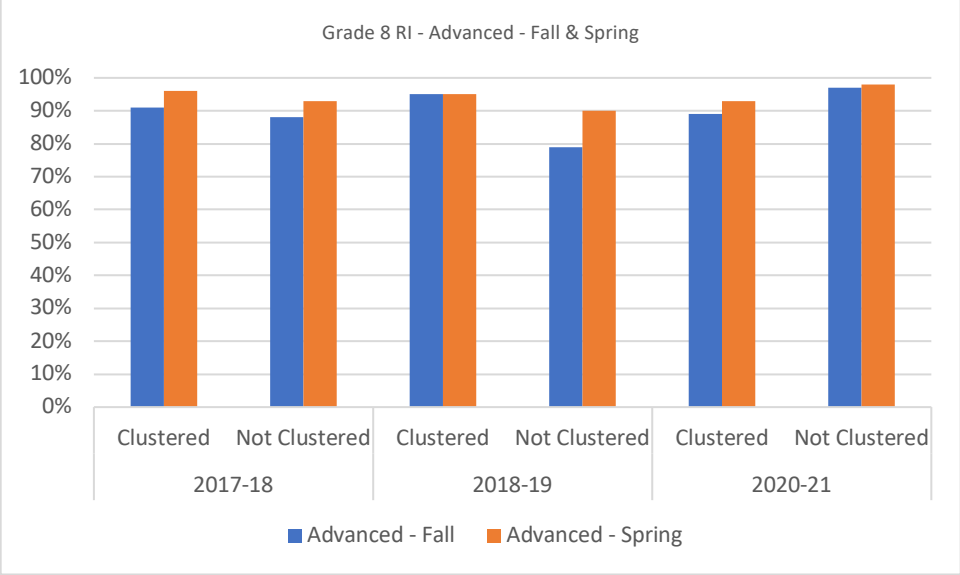


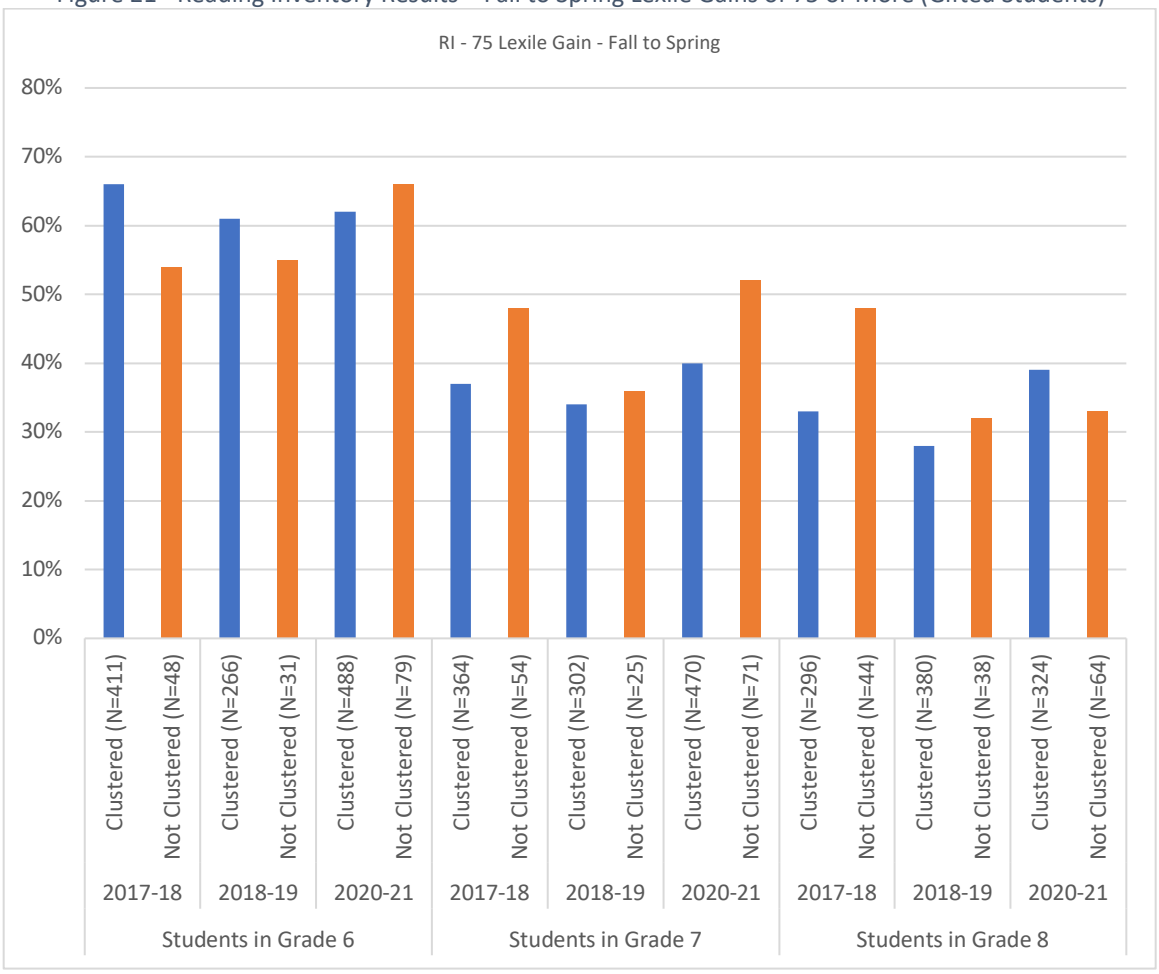
Figure 20 - Reading Inventory Results – Grade 8 Advanced Performance Band (Gifted Students)



Gifted Services – Middle School Cluster Model Study (2021-22)

All students are expected to show Lexile growth of at least 75, regardless of their achievement band. For gifted students with both a fall and spring score, gains were inconsistent when considering clustered status. Clustered students sometimes showed higher gains while other times non-clustered students showed higher gains. Growth was highest for gifted students in Grade 6.

Figure 21 - Reading Inventory Results – Fall to Spring Lexile Gains of 75 or More (Gifted Students)



Gifted Services – Middle School Cluster Model Study (2021-22)

General Findings – Reading Inventory Performance

Gifted student participation in the Reading Inventory varied by year.

Students identified as gifted in English/Language Arts perform well overall when given the Reading Inventory with Grade 6 students showing the most growth.

In Grade 6:

- 90% to 95% of clustered students achieved at the Advanced level in the spring.
- 81% to 86% of non-clustered students achieved at the Advanced level in the spring.
- From the fall to the spring, the cohort of clustered students and the cohort of non-clustered students achieving in the Advanced proficiency band increased by 20 to 25 percentage points.

In Grade 7 and Grade 8:

- 90% to 95% of clustered students scored in the Advanced proficiency band in the fall and 95% or more achieved at the Advanced level in the spring.
- About 85% to 90% of non-clustered students scored in the Advanced proficiency band in the fall and 90% or more achieved at the Advanced level in the spring.

Lexile Growth of 75 points or more was mixed for students with both a fall and spring score. In three cases, clustered students had more growth. In six cases, non-clustered students had more growth.

Gifted Services – Middle School Cluster Model Study (2021-22)

Math Inventory

The Math Inventory (MI) is a computer-adaptive mathematics assessment that assesses student performance in five strands of mathematics: Numbers and Operations, Geometry, Measurement, Algebra, and Data Analysis & Probability. Student results are reported using a measure called the Quantile which indicates how well a student understands mathematics skills and concepts along a developmental continuum. The Math Inventory is administered in the fall, winter, and spring to measure students' growth during the school year. Expected growth can be measured by comparing fall and spring scores. Additionally, students are placed into proficiency bands of Below Basic, Basic, Proficient, and Advanced.

In APS, only middle school students in courses leading to Algebra I take the MI. Most gifted students take MI in Grade 6, fewer take MI in Grade 7, and relatively few take MI in Grade 8 as more students are enrolled in Algebra I or above as they progress through middle school. Additionally, fewer students take MI in winter and spring, impacting the ability to look at growth by cohort.

Table 9 - Number of Gifted Students Taking the Math Inventory

Grade	Year	Identified as Gifted in Math	Gifted with an MI Score (Fall)	Gifted with an MI Score (Spring)	Gifted Students with Fall and Spring Scores
6	2017-18	527	512	496	482
	2018-19	614	592	484	466
	2020-21	614	605	563	556
7	2017-18	483	436	138	136
	2018-19	518	449	320	311
	2020-21	614	599	475	469
8	2017-18	405	361	27	27
	2018-19	482	420	36	35
	2020-21	574	328	149	144

Gifted Services – Middle School Cluster Model Study (2021-22)

When students enter middle school, a small percentage of gifted students score at the Advanced level on the Math Inventory. From Grade 6 to Grade 7 to Grade 8, most students progress to the Advanced level as they become ready to move from pre-algebra courses to Algebra I. The mathematics pathways offered are flexible and students accelerate as they are ready to do so. This is true for both clustered and non-clustered students.

The figures below show the percentage of each grade level cohort of gifted students achieving at the Advanced level on Math Inventory regardless of their course enrollment.

Figure 22 - Math Inventory Results – Grade 6 Advanced Performance Band (Gifted Students)

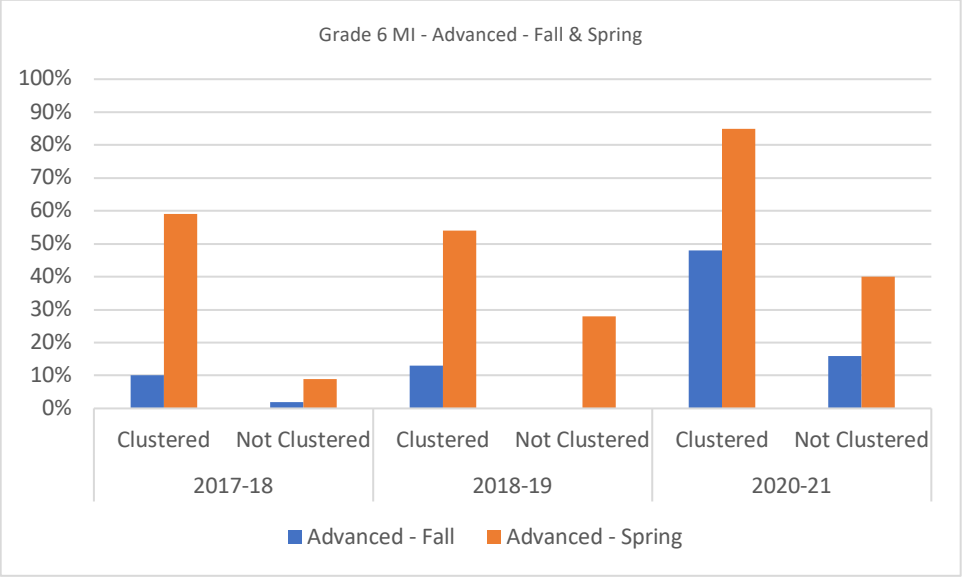
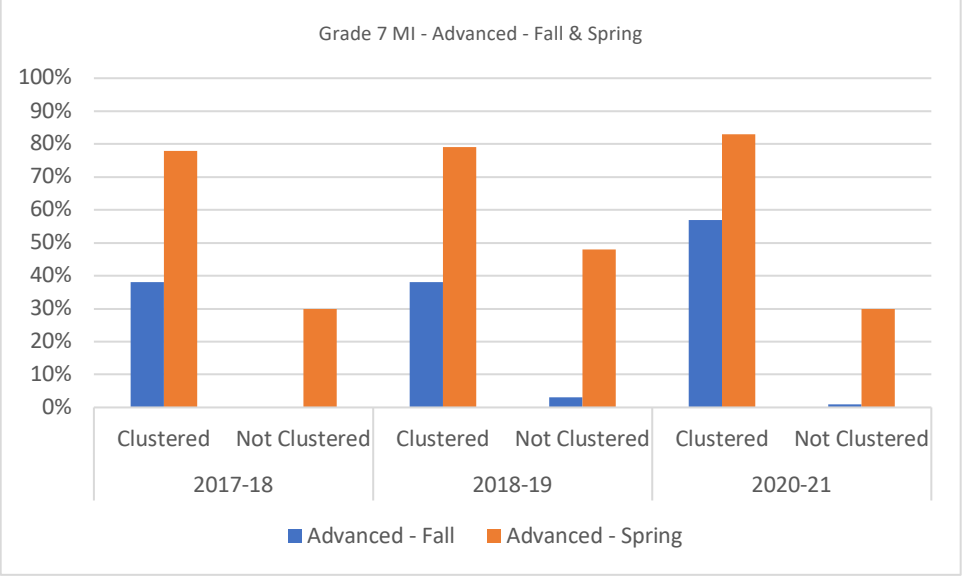


Figure 23 - Math Inventory Results – Grade 7 Advanced Performance Band (Gifted Students)



At Grade 8 the number of gifted students who take the MI in the spring is small compared to the number of students who take it in the fall. A direct comparison of fall and spring is not possible.

Figure 24 - Math Inventory Results – Grade 8 Advanced Performance Band – Fall (Gifted Students)

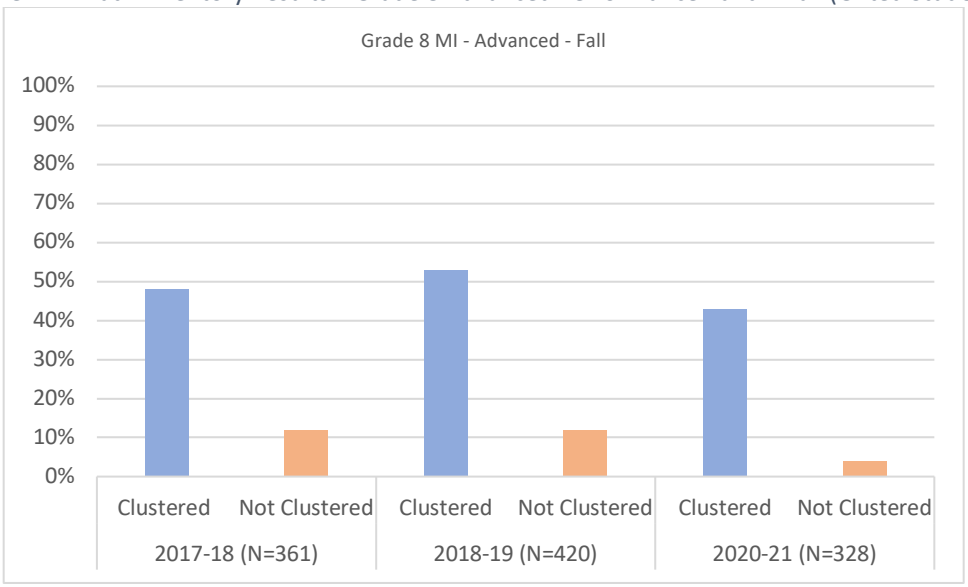
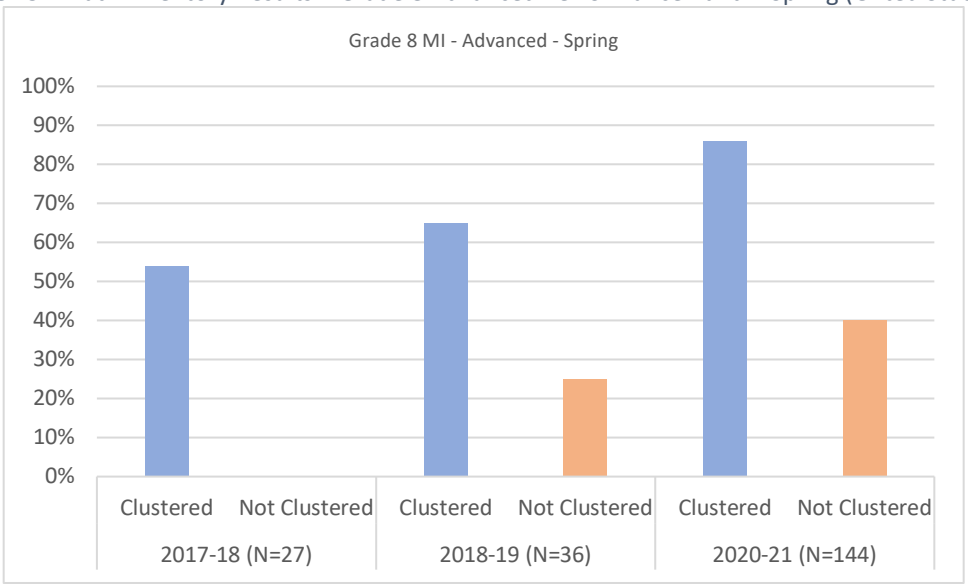


Figure 25 - Math Inventory Results – Grade 8 Advanced Performance Band – Spring (Gifted Students)

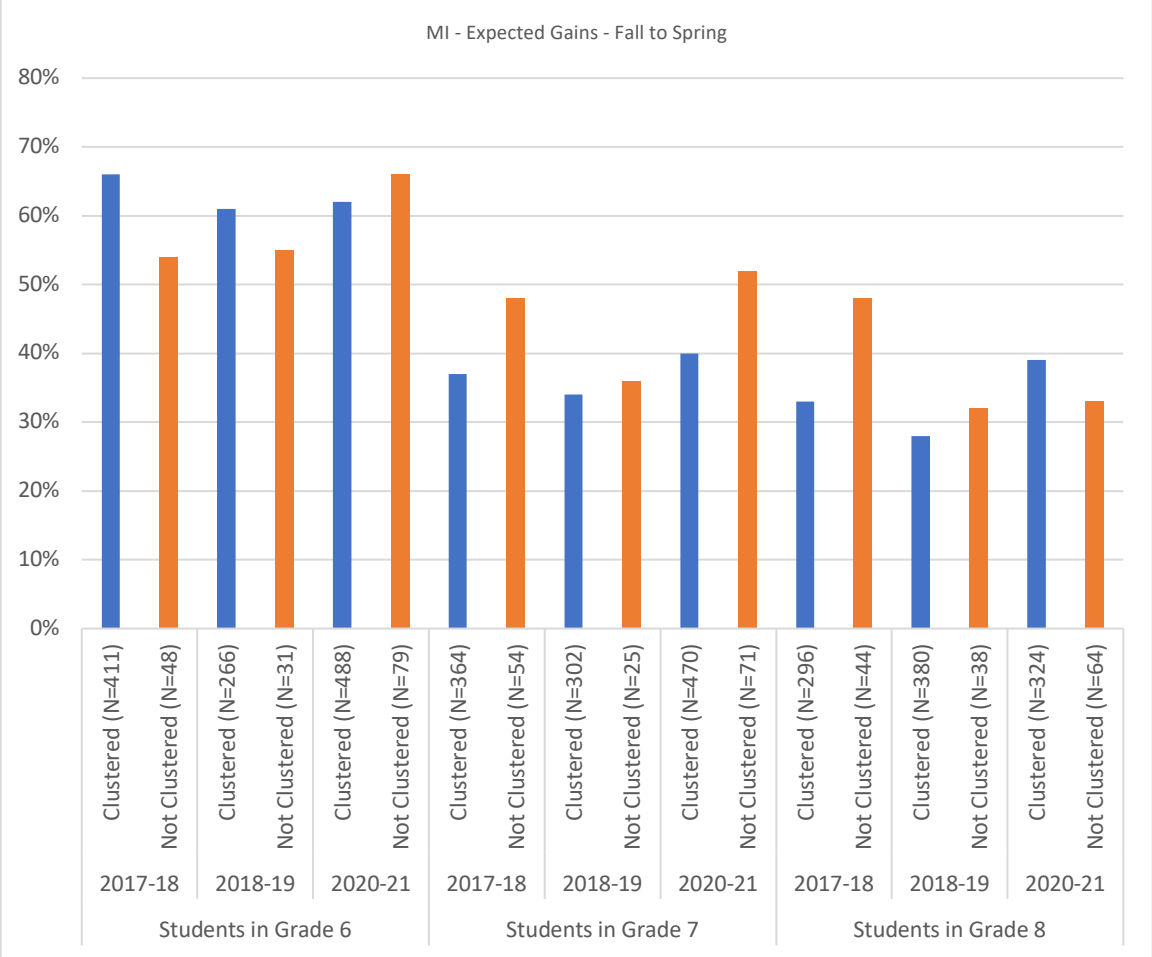


Note that relatively few gifted Grade 8 students take the MI in the spring.

Gifted Services – Middle School Cluster Model Study (2021-22)

Grade 6 students show the most expected gains on the Math Inventory and in two of three considered years, clustered students made more expected gains than non-clustered students. As students progress into Grade 7 and Grade 8, non-clustered students generally make more expected gains.

Figure 26 - Math Inventory Results – Fall to Spring Expected Gains (Gifted Students)



Gifted Services – Middle School Cluster Model Study (2021-22)

General Findings – Math Inventory Performance

- As students progress from Grade 6 to Grade 7 to Grade 8, fewer gifted students take the Math Inventory because APS uses the assessment to measure readiness for Algebra I. Once a student enrolls in Algebra I or above, that student no longer takes the assessment.
- Fewer students take the Math Inventory in the winter and spring than in the fall. Not all students have fall and spring scores that can be compared to measure growth.
- In the fall of Grade 6, few gifted students score at the Advanced level on Math Inventory. By the spring, a majority of clustered and non-clustered students make the expected gains on the Math Inventory. Fewer non-clustered students achieve the Advanced level than clustered students.
- About 75% to 80% of the cohort of clustered Grade 7 students who take the Math Inventory in the spring score at the Advanced level. 30% to 50% of non-clustered students achieve at the Advanced level in the spring.
- More than 50% of all gifted students in Grade 6 who are tested in fall and spring show expected gains on the Math Inventory.
- In Grade 7 and Grade 8, 30% to 40% of gifted students who are tested in the fall and spring show expected gains on the Math Inventory.

Gifted Services – Middle School Cluster Model Study (2021-22)

Gifted Identification and Clustering – Complete Data

Table 10 - Gifted Identification and Clustering – English/Language Arts

Grade	Year	Students identified gifted in ELA		ELA gifted students in cluster		ELA gifted students not in a cluster	
		#	%	#	%	#	%
6	2017-18	483	25%	429	89%	54	11%
	2018-19	541	25%	497	92%	44	8%
	2020-21	591	29%	508	86%	83	14%
7	2017-18	431	21%	377	88%	54	12%
	2018-19	478	25%	442	93%	36	7%
	2020-21	564	28%	491	87%	73	13%
8	2017-18	353	19%	305	86%	48	14%
	2018-19	436	22%	397	91%	39	9%
	2020-21	503	24%	431	86%	72	14%

Table 11 - Gifted Identification and Clustering – Mathematics

Grade	Year	Students identified gifted in Math		Math gifted students in cluster		Math gifted students not in a cluster	
		#	%	#	%	#	%
6	2017-18	527	27%	432	82%	95	18%
	2018-19	614	28%	548	89%	66	11%
	2020-21	614	30%	534	87%	80	13%
7	2017-18	483	24%	422	87%	61	13%
	2018-19	518	27%	486	94%	32	6%
	2020-21	614	30%	534	87%	80	13%
8	2017-18	405	22%	363	90%	42	10%
	2018-19	482	24%	419	87%	63	13%
	2020-21	574	28%	508	89%	66	11%

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 12 - Gifted Identification and Clustering – Science

Grade	Year	Students identified gifted in Science		Science gifted students in cluster		Science gifted students not in a cluster	
		#	%	#	%	#	%
6	2017-18	305	16%	257	84%	48	16%
	2018-19	406	19%	339	84%	67	17%
	2020-21	462	22%	365	79%	97	21%
7	2017-18	218	11%	151	69%	67	31%
	2018-19	301	16%	240	80%	61	20%
	2020-21	458	22%	330	72%	128	28%
8	2017-18	193	10%	123	64%	70	36%
	2018-19	216	11%	171	79%	45	21%
	2020-21	378	18%	259	69%	119	31%

Table 13 - Gifted Identification and Clustering – Social Studies

Grade	Year	Students identified gifted in Social Studies		Social Studies gifted students in cluster		Social Studies gifted students not in a cluster	
		#	%	#	%	#	%
6	2017-18	301	16%	247	82%	54	18%
	2018-19	405	19%	332	82%	73	18%
	2020-21	482	23%	361	75%	121	25%
7	2017-18	228	11%	167	73%	61	27%
	2018-19	299	16%	249	83%	50	17%
	2020-21	457	22%	343	75%	114	25%
8	2017-18	170	9%	115	68%	55	32%
	2018-19	228	11%	179	79%	49	21%
	2020-21	380	18%	296	78%	84	22%

Gifted Services – Middle School Cluster Model Study (2021-22)

Surveys – Complete Results

Teachers

Table 14 - How often do you gather data to assess the prior knowledge of students?

Group	All Teachers	ELA Teachers	English Learner Teachers	Math Teachers	Science Teachers	Special Education Teachers	Social Studies Teachers
N	**256**	**46**	**24**	**47**	**38**	**49**	**48**
% Daily	21%	11%	21%	13%	21%	29%	31%
% Once a week	32%	37%	38%	38%	29%	35%	19%
% Once a month	27%	30%	17%	21%	37%	27%	29%
% Four times a year	14%	20%	25%	17%	11%	4%	13%
% Once or twice a year	4%	2%	0%	9%	3%	2%	8%
% Never	2%	0%	0%	2%	0%	4%	0%

Table 15 - How often do you adjust learning experiences based on pre-assessments?

Group	All Teachers	ELA Teachers	English Learner Teachers	Math Teachers	Science Teachers	Special Education Teachers	Social Studies Teachers
N	**257**	**46**	**24**	**47**	**38**	**50**	**48**
% Daily	25%	15%	33%	26%	32%	28%	17%
% Once a week	35%	39%	25%	32%	34%	42%	33%
% Once a month	25%	30%	29%	23%	21%	26%	25%
% Four times a year	8%	13%	4%	11%	8%	0%	10%
% Once or twice a year	4%	0%	8%	4%	5%	0%	10%
% Never	3%	1%	0%	4%	0%	4%	4%

Gifted Services – Middle School Cluster Model Study (2021-22)

Students

English/Language Arts

Table 16 - My classes require me to think at a higher level or solve problems critically and creatively. (ELA)

Group	All Students	Students Not Identified Gifted in ELA	Students Identified Gifted in ELA	Students Identified Gifted in ELA Not in a Cluster Group	Students Identified Gifted in ELA in a Cluster Group
N	**2953**	**1919**	**998**	**108**	**890**
% Strongly Agree	29%	30%	28%	21%	28%
% Somewhat Agree	48%	47%	48%	56%	47%
% Somewhat Disagree	15%	13%	17%	15%	18%
% Strongly Disagree	4%	4%	4%	4%	4%
% I don't know	4%	5%	3%	5%	2%

Table 17 - I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.). (ELA)

Group	All Students	Students Not Identified Gifted in ELA	Students Identified Gifted in ELA	Students Identified Gifted in ELA Not in a Cluster Group	Students Identified Gifted in ELA in a Cluster Group
N	**2951**	**1914**	**1000**	**108**	**892**
% Strongly Agree	31%	32%	29%	27%	29%
% Somewhat Agree	38%	37%	40%	34%	40%
% Somewhat Disagree	15%	15%	16%	16%	16%
% Strongly Disagree	7%	6%	8%	14%	7%
% I don't know	10%	10%	8%	9%	8%

Table 18 - How often do you have opportunities to learn something new that you don't already know? (ELA)

Group	All Students	Students Not Identified Gifted in ELA	Students Identified Gifted in ELA	Students Identified Gifted in ELA Not in a Cluster Group	Students Identified Gifted in ELA in a Cluster Group
N	**2952**	**1918**	**997**	**108**	**889**
% Daily	26%	29%	20%	17%	20%
% Once a week	42%	42%	42%	50%	42%
% Once a month	22%	19%	27%	25%	28%
% Once or twice a year	4%	3%	6%	6%	6%
% Never	1%	1%	2%	0%	2%
% I don't know	4%	4%	3%	2%	3%

Table 19 - How often you have opportunities or choices to explore an interest area or go deeper into topics? (ELA)

Group	All Students	Students Not Identified Gifted in ELA	Students Identified Gifted in ELA	Students Identified Gifted in ELA Not in a Cluster Group	Students Identified Gifted in ELA in a Cluster Group
N	**2949**	**1915**	**997**	**107**	**890**
% Daily	31%	34%	26%	27%	26%
% Once a week	33%	33%	34%	32%	34%
% Once a month	18%	17%	22%	21%	22%
% Once or twice a year	6%	4%	8%	7%	9%
% Never	3%	3%	3%	3%	3%
% I don't know	8%	9%	7%	10%	6%

Mathematics

Table 20 - My classes require me to think at a higher level or solve problems critically and creatively. (Math)

Group	All Students	Students Not Identified Gifted in Math	Students Identified Gifted in Math	Students Identified Gifted in Math Not in a Cluster Group	Students Identified Gifted in Math in a Cluster Group
N	**2968**	**1867**	**1063**	**125**	**938**
% Strongly Agree	52%	49%	59%	42%	61%
% Somewhat Agree	36%	37%	33%	44%	31%
% Somewhat Disagree	7%	7%	5%	10%	5%
% Strongly Disagree	2%	3%	2%	2%	2%
% I don't know	3%	4%	1%	2%	1%

Table 21 - I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.). (Math)

Group	All Students	Students Not Identified Gifted in Math	Students Identified Gifted in Math	Students Identified Gifted in Math Not in a Cluster Group	Students Identified Gifted in Math in a Cluster Group
N	**2955**	**1855**	**1062**	**125**	**937**
% Strongly Agree	32%	26%	43%	16%	46%
% Somewhat Agree	35%	37%	32%	35%	31%
% Somewhat Disagree	14%	15%	11%	21%	9%
% Strongly Disagree	8%	9%	6%	14%	5%
% I don't know	11%	13%	9%	14%	8%

Table 22 - How often do you have opportunities to learn something new that you don't already know? (Math)

Group	All Students	Students Not Identified Gifted in Math	Students Identified Gifted in Math	Students Identified Gifted in Math Not in a Cluster Group	Students Identified Gifted in Math in a Cluster Group
N	**2957**	**1861**	**1059**	**123**	**936**
% Daily	55%	52%	62%	45%	64%
% Once a week	33%	34%	30%	41%	28%
% Once a month	6%	7%	5%	9%	5%
% Once or twice a year	2%	2%	1%	2%	1%
% Never	1%	1%	0%	3%	0%
% I don't know	3%	4%	2%	0%	1%

Table 23 - How often you have opportunities or choices to explore an interest area or go deeper into topics? (Math)

Group	All Students	Students Not Identified Gifted in Math	Students Identified Gifted in Math	Students Identified Gifted in Math Not in a Cluster Group	Students Identified Gifted in Math in a Cluster Group
N	**2958**	**1860**	**1062**	**125**	**937**
% Daily	32%	32%	32%	30%	32%
% Once a week	29%	29%	29%	28%	29%
% Once a month	15%	15%	15%	14%	15%
% Once or twice a year	6%	5%	8%	7%	8%
% Never	7%	7%	7%	5%	7%
% I don't know	11%	12%	9%	17%	8%

Gifted Services – Middle School Cluster Model Study (2021-22)

Science

Table 24 - My classes require me to think at a higher level or solve problems critically and creatively. (Science)

Group	All Students	Students Not Identified Gifted in Science	Students Identified Gifted in Science	Students Identified Gifted in Science Not in a Cluster Group	Students Identified Gifted in Science in a Cluster Group
N	**2953**	**2145**	**770**	**178**	**592**
% Strongly Agree	33%	34%	29%	22%	31%
% Somewhat Agree	46%	45%	48%	48%	48%
% Somewhat Disagree	14%	13%	17%	21%	16%
% Strongly Disagree	4%	3%	5%	6%	4%
% I don't know	4%	5%	2%	2%	2%

Table 25 - I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.). (Science)

Group	All Students	Students Not Identified Gifted in Science	Students Identified Gifted in Science	Students Identified Gifted in Science Not in a Cluster Group	Students Identified Gifted in Science in a Cluster Group
N	**2945**	**2136**	**772**	**179**	**593**
% Strongly Agree	27%	28%	26%	20%	28%
% Somewhat Agree	37%	36%	41%	40%	42%
% Somewhat Disagree	16%	16%	16%	20%	15%
% Strongly Disagree	8%	8%	7%	10%	7%
% I don't know	12%	13%	9%	10%	9%

Table 26 - How often do you have opportunities to learn something new that you don't already know? (Science)

Group	All Students	Students Not Identified Gifted in Science	Students Identified Gifted in Science	Students Identified Gifted in Science Not in a Cluster Group	Students Identified Gifted in Science in a Cluster Group
N	**2951**	**2144**	**770**	**177**	**593**
% Daily	50%	51%	46%	42%	47%
% Once a week	36%	35%	40%	47%	38%
% Once a month	9%	9%	10%	8%	10%
% Once or twice a year	2%	1%	3%	2%	3%
% Never	1%	1%	1%	1%	1%
% I don't know	3%	3%	1%	1%	1%

Table 27 - How often you have opportunities or choices to explore an interest area or go deeper into topics? (Science)

Group	All Students	Students Not Identified Gifted in Science	Students Identified Gifted in Science	Students Identified Gifted in Science Not in a Cluster Group	Students Identified Gifted in Science in a Cluster Group
N	**2956**	**2146**	**772**	**179**	**593**
% Daily	38%	39%	34%	33%	35%
% Once a week	30%	28%	34%	27%	36%
% Once a month	16%	16%	17%	23%	15%
% Once or twice a year	5%	5%	6%	8%	6%
% Never	3%	3%	3%	3%	3%
% I don't know	8%	9%	5%	6%	5%

Social Studies

Table 28 - My classes require me to think at a higher level or solve problems critically and creatively. (Social Studies)

Group	All Students	Students Not Identified Gifted in Social Studies	Students Identified Gifted in Social Studies	Students Identified Gifted in Social Studies Not in a Cluster Group	Students Identified Gifted in Social Studies in a Cluster Group
N	**2949**	**2125**	**787**	**170**	**617**
% Strongly Agree	34%	36%	31%	27%	32%
% Somewhat Agree	41%	40%	44%	42%	44%
% Somewhat Disagree	14%	14%	15%	19%	14%
% Strongly Disagree	5%	5%	6%	8%	6%
% I don't know	5%	6%	3%	3%	3%

Table 29 - I am in classes with other students who are my intellectual peers (for example, they make me think when we have a conversation, or they like the same books, etc.). (Social Studies)

Group	All Students	Students Not Identified Gifted in Social Studies	Students Identified Gifted in Social Studies	Students Identified Gifted in Social Studies Not in a Cluster Group	Students Identified Gifted in Social Studies in a Cluster Group
N	**2946**	**2123**	**787**	**169**	**618**
% Strongly Agree	32%	31%	32%	24%	35%
% Somewhat Agree	36%	35%	39%	40%	39%
% Somewhat Disagree	14%	14%	14%	17%	13%
% Strongly Disagree	7%	7%	6%	8%	5%
% I don't know	11%	12%	9%	11%	8%

Table 30 - How often do you have opportunities to learn something new that you don't already know? (Social Studies)

Group	All Students	Students Not Identified Gifted in Social Studies	Students Identified Gifted in Social Studies	Students Identified Gifted in Social Studies Not in a Cluster Group	Students Identified Gifted in Social Studies in a Cluster Group
N	**2948**	**2121**	**789**	**170**	**619**
% Daily	53%	52%	53%	51%	54%
% Once a week	31%	32%	30%	34%	30%
% Once a month	9%	8%	11%	10%	11%
% Once or twice a year	2%	2%	2%	3%	2%
% Never	1%	1%	1%	1%	1%
% I don't know	4%	5%	2%	2%	2%

Table 31 - How often you have opportunities or choices to explore an interest area or go deeper into topics? (Social Studies)

Group	All Students	Students Not Identified Gifted in Social Studies	Students Identified Gifted in Social Studies	Students Identified Gifted in Social Studies Not in a Cluster Group	Students Identified Gifted in Social Studies in a Cluster Group
N	**2947**	**2125**	**786**	**170**	**616**
% Daily	41%	41%	40%	41%	40%
% Once a week	30%	30%	32%	30%	33%
% Once a month	13%	13%	14%	15%	14%
% Once or twice a year	5%	5%	5%	5%	5%
% Never	3%	2%	3%	2%	3%
% I don't know	8%	9%	6%	6%	6%

Gifted Services – Middle School Cluster Model Study (2021-22)

All Core Subjects

Table 32 - What other supports or opportunities would you like to have in Math, English/Language Arts, Science, and Social Studies? – All Middle School Students

Response Category	Number of responses *(N=1330)*	%
Projects	88	7%
Hands-on / Interactive	76	6%
Group activities	73	5%
New content or classes	71	5%
More challenging material	59	4%
Opportunities in interest areas	59	4%
More time on topics and assignments	50	4%
Assignment choice	47	4%
Easier or less work	47	4%
Advanced content or classes	43	3%
Fun and games	42	3%
Know / learn / explore more	40	3%
Discussion	36	3%
In-depth learning	33	2%
Different learning environments	24	2%
New learning strategies	23	2%
More teacher explanation	21	2%
Writing opportunities	21	2%
Independent or extension	20	2%
Personal talk-time with peers	19	1%
Better instruction or instructors	17	1%
More access to teachers	17	1%
Creativity	16	1%
Videos and visuals	16	1%
Better resources and materials	14	1%
Use more books	14	1%
Practical information and skills	13	1%
Review activities	12	1%
Research	10	1%
More clustering	9	1%
Extracurricular academic activities	7	1%
Classroom atmosphere/climate	6	Less than 1%
Extra credit	6	Less than 1%
More practice opportunities	6	Less than 1%
Contests	5	Less than 1%
Critical thinking	5	Less than 1%
Differentiation	5	Less than 1%
Gifted services and supports	5	Less than 1%
More asynchronous work	5	Less than 1%

Problem-based learning	4	Less than 1%
Motivation	3	Less than 1%
No additional supports (status quo)	146	11%
Other	97	7%
Unclear	107	--
Don't know	372	--
NA / None	458	--

Table 33 - What other supports or opportunities would you like to have in Math, English/Language Arts, Science, and Social Studies? Gifted in Cluster and Gifted Not in Cluster

Response Category	**Gifted in Cluster** *(N = 621)*	**%**	**Gifted, Not in Cluster** *(N=27)*	**%**
Projects	45	7%	0	0%
More challenging material	40	6%	0	0%
Opportunities in interest areas	40	6%	0	0%
Hands-on / Interactive	34	5%	2	7%
New content or classes	34	5%	2	7%
Group activities	30	5%	0	0%
Advanced content or classes	28	5%	3	11%
Assignment choice	24	4%	0	0%
Discussion	20	3%	0	0%
More time on topics and assignments	19	3%	1	4%
Easier or less work	19	3%	0	0%
In-depth learning	17	3%	1	4%
Independent or extension	15	2%	2	7%
Know / learn / explore more	14	2%	0	0%
Writing opportunities	13	2%	0	0%
Fun and games	11	2%	3	11%
Creativity	10	2%	0	0%
Use more books	10	2%	0	0%
New learning strategies	9	1%	1	4%
Better resources and materials	9	1%	0	0%
Better instruction or instructors	9	1%	1	4%
Research	9	1%	0	0%
Personal talk-time with peers	7	1%	2	7%
More access to teachers	7	1%	0	0%
Videos and visuals	7	1%	3	11%
More clustering	7	1%	0	0%
More teacher explanation	6	1%	0	0%
Gifted services and supports	5	1%	0	0%
Different learning environments	4	1%	1	4%

Practical information and skills	4	1%	0	0%
Extracurricular academic activities	4	1%	1	4%
Contests	4	1%	0	0%
Critical thinking	4	1%	0	0%
Review activities	3	Less than 1 %	0	0%
Classroom atmosphere/climate	3	Less than 1 %	0	0%
Problem-based learning	3	Less than 1 %	0	0%
Extra credit	2	Less than 1 %	0	0%
Differentiation	2	Less than 1 %	0	0%
More asynchronous work	2	Less than 1 %	0	0%
More practice opportunities	1	Less than 1 %	0	0%
Motivation	1	Less than 1 %	0	0%
No additional supports (status quo)	63	10%	2	7%
Other	23	4%	2	7%
Unclear	27	--	2	--
Don’t know	118	--	6	--
NA / None	171	--	10	--

Gifted Services – Middle School Cluster Model Study (2021-22)

Standards of Learning Tests – Complete Results

English/Language Arts – Reading

Table 34 - Grade 6 Reading SOL Results

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	540	29%	310	64%	230	17%	282	66%	28	53%
Proficient	1053	57%	171	36%	882	65%	147	34%	24	45%
Fail	255	14%	1	< 1%	254	19%	0	0%	1	2%
Total	1848		482		1366		429		53	
2018-19										
Advanced	561	27%	332	62%	229	15%	312	63%	20	45%
Proficient	1182	57%	206	38%	976	64%	182	37%	24	55%
Fail	333	16%	2	< 1%	331	22%	2	< 1%	0	0%
Total	2076		540		1536		496		44	
2020-21										
Advanced	393	23%	280	51%	113	10%	246	52%	34	47%
Proficient	939	56%	258	47%	683	60%	218	46%	38	53%
Fail	358	21%	12	2%	346	30%	12	3%	0	
Total	1690		548		1142		476		72	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 35 - Grade 7 Reading SOL Results

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	524	27%	272	63%	253	17%	244	65%	27	50%
Proficient	1141	59%	154	36%	989	65%	128	34%	26	48%
Fail	282	15%	6	1%	276	18%	5	1%	1	2%
Total	1947		431		1516		377		54	
2018-19										
Advanced	481	26%	279	59%	202	15%	262	59%	17	49%
Proficient	1090	59%	193	41%	897	66%	176	40%	17	49%
Fail	268	15%	5	1%	263	19%	4	1%	1	3%
Total	1839		477		1362		442		35	
2020-21										
Advanced	332	22%	233	47%	99	9%	200	46%	33	58%
Proficient	887	57%	250	51%	637	61%	230	53%	20	35%
Fail	326	21%	10	2%	316	30%	6	1%	4	7%
Total	1545		493		1052		436		57	

Table 36 - Grade 8 Reading SOL Results

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	405	23%	199	57%	206	14%	176	58%	23	48%
Proficient	1095	61%	151	43%	944	65%	126	41%	25	52%
Fail	302	17%	2	< 1%	300	21%	2	< 1%	0	0%
Total	1802		352		1450		304		48	
2018-19										
Advanced	407	21%	230	53%	177	12%	217	55%	13	33%
Proficient	1223	63%	199	46%	1024	68%	173	44%	26	67%
Fail	311	16%	4	1%	307	20%	4	1%	0	0
Total	1941		433		1508		394		39	0%
2020-21										
Advanced	407	24%	253	56%	154	12%	210	54%	43	67%
Proficient	974	57%	201	44%	773	62%	180	46%	21	33%
Fail	323	19%	0	0%	323	26%	0		0	
Total	1704		454		1250		390		64	

Gifted Services – Middle School Cluster Model Study (2021-22)

English/Language Arts – Writing

Table 37 - Grade 8 Writing SOL Results

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	646	38%	262	75%	384	29%	225	74%	37	77%
Proficient	784	46%	86	35%	698	52%	75	25%	11	23%
Fail	269	16%	3	1%	266	20%	3	1%	0	0%
Total	1699				1348		303		48	
2018-19										
Advanced	735	41%	335	77%	400	29%	313	79%	22	56%
Proficient	815	45%	92	21%	723	53%	76	19%	16	41%
Fail	258	14%	7	2%	251	18%	6	2%	1	
Total	1808		434		1374		395		39	

Gifted Services – Middle School Cluster Model Study (2021-22)

Mathematics

Table 38 - Grade 6 Math SOL Results

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math in not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	505	27%	321	61%	184	14%	285	66%	36	38%
Proficient	1102	59%	203	39%	899	67%	146	34%	57	61%
Fail	268	14%	2	< 1%	266	20%	1	< 1%	1	1%
Total	1875		526		1349		432		94	
2018-19										
Advanced	640	30%	357	58%	283	19%	316	58%	41	63%
Proficient	1170	56%	251	41%	919	61%	230	42%	21	32%
Fail	300	14%	3	< 1%	297	20%	0	0%	3	5%
Total	2110		611		1499		546		65	
2020-21										
Advanced	257	15%	211	34%	46	4%	209	42%	2	3%
Proficient	821	49%	332	58%	489	44%	278	56%	54	73%
Fail	597	36%	28	5%	569	52%	10	2%	18	24%
Total	1675		571		1104		497		74	

Table 39 - Grade 7 Math SOL Results

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math in not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	340	17%	210	44%	130	9%	202	48%	8	13%
Proficient	1252	64%	269	56%	983	66%	218	52%	51	84%
Fail	377	19%	4	< 1%	373	25%	2	< 1%	2	3%
Total	1969		483		1486		422		61	
2018-19										
Advanced	429	23%	272	53%	157	12%	262	54%	10	31%
Proficient	1191	64%	243	47%	948	70%	221	46%	22	69%
Fail	249	13%	3	< 1%	246	18%	3	< 1%	0	0%
Total	1869		518		1351		486		32	
2020-21										
Advanced	110	7%	90	16%	20	2%	89	18%	1	2%
Proficient	830	54%	406	73%	424	43%	370	75%	36	56%
Fail	597	39%	64	11%	533	55%	37	8%	27	42%
Total	1537		560		977		496		64	

Table 40 - Grade 8 Math SOL Results

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math not in a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	399	22%	213	53%	186	13%	203	56%	10	24%
Proficient	1127	62%	183	46%	944	66%	155	43%	28	68%
Fail	296	16%	6	2%	290	20%	3	1%	3	7%
Total	1822		402		1420		361		41	
2018-19										
Advanced	515	26%	280	59%	235	16%	270	66%	10	16%
Proficient	1198	61%	190	40%	1008	68%	137	33%	53	84%
Fail	237	12%	3	< 1%	234	16%	3	< 1%	0	0%
Total	1950		473		1477		410		63	
2020-21										
Advanced	205	12%	157	30%	48	4%	155	33%	2	4%
Proficient	959	55%	344	65%	615	51%	299	63%	45	79%
Fail	571	33%	29	6%	542	45%	19	4%	10	18%
Total	1735		530		1205		473		57	

Gifted Services – Middle School Cluster Model Study (2021-22)

Science

Table 41 - Grade 8 Science SOL Results

	All students		Students identified gifted in Science		Students not identified gifted in Science		Students identified gifted in Science in a cluster		Students identified gifted in Science not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	400	22%	119	62%	281	17%	81	66%	38	54%
Proficient	1120	62%	74	38%	1046	64%	42	34%	32	46%
Fail	300	17%	0	0%	300	18%	0		0	0%
Total	1820		193		1627		123		70	
2018-19										
Advanced	584	30%	149	69%	435	25%	123	72%	26	58%
Proficient	1067	55%	65	30%	1002	58%	47	28%	18	40%
Fail	307	16%	1	< 1%	306	18%	0	0%	1	2%
Total	1958		215		1743		170		45	
2020-21										
Advanced	249	15%	148	45%	101	8%	100	45%	48	45%
Proficient	948	58%	171	52%	777	59%	118	53%	53	50%
Fail	446	27%	11	3%	435	33%	6	3%	5	5%
Total	1643		330		1313		224		106	

Social Studies

Table 42 - Grade 7 History SOL Results

	All students		Students identified gifted in Social Studies		Students not identified gifted in Social Studies		Students identified gifted in Social Studies in a cluster		Students identified gifted in Social Studies in not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	471	26%	142	62%	329	21%	105	63%	37	61%
Proficient	1110	61%	81	36%	1029	64%	58	35%	23	38%
Fail	245	13%	5	2%	240	15%	4	2%	1	2%
Total	1826		228		1598		167		61	
2018-19										
Advanced	360	20%	156	52%	204	14%	130	52%	26	52%
Proficient	1102	62%	140	47%	962	65%	117	47%	23	46%
Fail	319	18%	3	1%	316	21%	2	< 1%	1	2%
Total	1781		299		1482		249		50	

Table 43 - Grade 8 World Geography SOL Results

	All students		Students identified gifted in Social Studies		Students not identified gifted in Social Studies		Students identified gifted in Social Studies in a cluster		Students identified gifted in Social Studies in not a cluster	
	#	%	#	%	#	%	#	%	#	%
2017-18										
Advanced	306	17%	90	53%	216	13%	63	55%	27	49%
Proficient	1255	70%	80	47%	1175	73%	52	45%	28	51%
Fail	223	13%	0	0%	223	14%	0	0%	0	0%
Total	1784		170		1614		115		55	
2018-19										
Advanced	317	16%	122	54%	195	12%	97	54%	25	51%
Proficient	1370	71%	106	46%	1264	74%	82	46%	24	49%
Fail	241	13%	0	0%	241	14%	0	0%	0	0%
Total	1928		228		1700		179		49	

Gifted Services – Middle School Cluster Model Study (2021-22)

Reading Inventory – Complete Results

Table 44 - 2017-18 Grade 6 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	268	14%	2	< 1%	266	20%	2	< 1%	0	0%
Basic	489	27%	46	10%	443	33%	39	9%	7	13%
Proficient	428	23%	96	20%	332	24%	84	20%	12	23%
Advanced	658	36%	334	70%	324	24%	300	71%	34	64%
Total	1843		483		1365		425		53	
Winter										
Below Basic	222	12%	2	< 1%	220	17%	2	< 1%	0	0%
Basic	354	20%	9	2%	345	26%	6	1%	3	7%
Proficient	346	19%	41	9%	305	23%	36	9%	5	12%
Advanced	866	48%	416	89%	450	34%	381	90%	35	81%
Total	1788		468		1320		425		43	
Spring										
Below Basic	168	10%	0	0%	168	13%	0	0%	0	0%
Basic	258	15%	7	2%	251	20%	4	1%	3	6%
Proficient	284	17%	22	5%	262	21%	18	4%	4	8%
Advanced	1004	59%	435	94%	569	46%	393	95%	42	86%
Total	1714		464		1250		415		49	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 45 - 2017-18 Grade 7 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	245	13%	0	0%	245	16%	0	0%	0	0%
Basic	294	15%	3	1%	291	20%	2	< 1%	1	2%
Proficient	315	16%	21	5%	294	20%	18	5%	3	6%
Advanced	1066	56%	401	94%	665	45%	351	95%	50	93%
Total	1920		425		1495		371		54	
Winter										
Below Basic	211	13%	0	0%	211	16%	0	0%	0	0%
Basic	239	15%	4	1%	235	18%	3	1%	1	3%
Proficient	221	14%	8	2%	213	16%	5	2%	3	8%
Advanced	969	59%	327	97%	642	49%	291	97%	36	90%
Total	1640		339		1301		299		40	
Spring										
Below Basic	164	9%	1	< 1%	163	12%	1	< 1%	0	0%
Basic	207	11%	3	1%	204	14%	2	< 1%	0	0%
Proficient	260	14%	3	1%	257	18%	3	1%	1	2%
Advanced	1215	66%	417	98%	798	56%	364	98%	53	98%
Total	1846		424		1422		370		54	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 46 - 2017-18 Grade 8 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted not in ELA in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	210	12%	1	< 1%	209	15%	1	< 1%	0	0%
Basic	259	15%	3	1%	256	18%	2	< 1%	1	2%
Proficient	381	22%	30	9%	351	25%	25	8%	5	10%
Advanced	915	52%	315	90%	600	42%	273	91%	42	88%
Total	1765		349		1416		301		48	
Winter										
Below Basic	167	23%	1	1%	166	25%	1	2%	0	0%
Basic	184	25%	2	3%	182	27%	1	2%	1	14%
Proficient	140	19%	5	7%	135	20%	4	7%	1	14%
Advanced	242	33%	61	88%	181	27%	56	90%	5	71%
Total	733		69		664		62		7	
Spring										
Below Basic	137	8%	0	0%	137	10%	0	0%	0	0%
Basic	217	13%	3	1%	214	16%	2	< 1%	1	2%
Proficient	312	19%	12	4%	300	23%	10	3%	2	5%
Advanced	1012	60%	328	96%	684	51%	287	96%	41	93%
Total	1678		343		1335		299		44	

Table 47 - 2018-19 Grade 6 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	309	15%	3	< 1%	306	20%	1	< 1%	2	5%
Basic	501	24%	38	7%	463	30%	34	7%	4	9%
Proficient	496	24%	107	20%	389	25%	91	19%	16	36%
Advanced	762	37%	389	72%	373	24%	367	74%	22	50%
Total	2068		537		1531		493		44	
Winter										
Below Basic	230	11%	0	0%	230	15%	0	0%	0	0%
Basic	365	18%	7	1%	358	24%	4	1%	3	7%
Proficient	384	19%	50	9%	334	22%	36	7%	14	33%
Advanced	1067	52%	480	89%	587	39%	455	92%	25	60%
Total	2046		537		1509		495		42	
Spring										
Below Basic	192	16%	1	< 1%	191	21%	0	0%	1	3%
Basic	209	18%	2	< 1%	207	23%	2	< 1%	0	0%
Proficient	202	17%	19	6%	183	20%	14	5%	5	16%
Advanced	594	50%	276	93%	318	35%	251	94%	25	81%
Total	1197		298		899		267		31	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 48 - 2018-19 Grade 7 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	228	13%	0	0%	228	17%	0	0%	0	0%
Basic	278	15%	5	1%	273	20%	5	1%	0	0%
Proficient	357	20%	25	5%	332	25%	21	5%	4	12%
Advanced	946	52%	435	94%	511	38%	405	94%	30	88%
Total	1809		465		1344		431		34	
Winter										
Below Basic	188	12%	0	0%	188	16%	0	0%	0	0%
Basic	240	16%	2	< 1%	238	21%	1	< 1%	1	3%
Proficient	246	16%	21	6%	225	19%	17	5%	4	13%
Advanced	858	56%	351	94%	507	44%	326	95%	25	83%
Total	1532		374		1158		344		30	
Spring										
Below Basic	148	11%	0	0%	148	14%	0	0%	0	0%
Basic	194	14%	5	2%	189	18%	5	2%	0	0%
Proficient	225	17%	12	4%	213	21%	9	3%	3	12%
Advanced	796	58%	320	95%	476	46%	297	96%	23	89%
Total	1363		337		1026		311		26	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 49 - 2018-19 Grade 8 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted not in ELA in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	195	10%	0	0%	195	13%	0	0%	0	0%
Basic	268	14%	5	1%	263	18%	3	1%	2	5%
Proficient	382	20%	22	5%	360	24%	16	4%	6	16%
Advanced	1065	56%	401	94%	664	45%	371	95%	30	79%
Total	1910		428		1482		390		38	
Winter										
Below Basic	172	16%	1	< 1%	171	19%	1	< 1%	0	0%
Basic	224	21%	3	2%	221	24%	1	< 1%	2	14%
Proficient	214	20%	6	4%	208	23%	5	4%	1	7%
Advanced	465	43%	147	94%	318	35%	136	95%	11	79%
Total	1075		157		918		143		14	
Spring										
Below Basic	159	9%	1	< 1%	158	12%	1	< 1%	0	0%
Basic	207	12%	2	< 1%	205	15%	1	< 1%	1	3%
Proficient	323	18%	19	5%	304	22%	16	4%	3	8%
Advanced	1115	62%	403	95%	712	52%	368	95%	35	90%
Total	1804		425		1379		386		39	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 50 - 2020-21 Grade 6 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	324	17%	6	1%	318	24%	5	1%	1	1%
Basic	488	26%	69	12%	419	32%	54	11%	15	18%
Proficient	382	20%	118	21%	264	20%	102	21%	16	20%
Advanced	710	37%	384	67%	326	25%	334	68%	50	61%
Total	1904		577		1327		495		82	
Winter										
Below Basic	289	16%	3	< 1%	286	22%	2	< 1%	1	1%
Basic	400	21%	35	6%	365	28%	29	6%	6	8%
Proficient	314	17%	65	11%	249	19%	51	10%	14	18%
Advanced	867	46%	479	82%	388	30%	420	84%	59	74%
Total	1870		582		1288		502		80	
Spring										
Below Basic	269	14%	3	< 1%	266	21%	2	< 1%	1	1%
Basic	313	17%	18	3%	295	23%	14	3%	4	5%
Proficient	289	15%	41	7%	248	19%	34	7%	7	9%
Advanced	1000	53%	518	89%	482	37%	450	90%	68	85%
Total	1871		580		1291		500		80	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 51 - 2020-21 Grade 7 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted in ELA not in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	240	13%	2	< 1%	238	18%	0	0%	2	3%
Basic	313	17%	8	1%	305	23%	7	1%	1	1%
Proficient	336	18%	55	10%	281	22%	46	10%	9	12%
Advanced	973	52%	490	88%	483	37%	429	89%	61	84%
Total	1862		555		1307		482		73	
Winter										
Below Basic	249	14%	1	< 1%	248	20%	0	0%	1	1%
Basic	268	15%	8	2%	260	21%	6	1%	2	3%
Proficient	293	17%	32	6%	261	21%	30	7%	2	3%
Advanced	963	54%	466	92%	497	39%	403	92%	63	93%
Total	1773		507		1266		439		68	
Spring										
Below Basic	215	12%	2	< 1%	213	17%	0	0%	2	3%
Basic	231	13%	4	1%	227	18%	4	1%	0	0%
Proficient	265	15%	22	4%	243	19%	17	4%	5	7%
Advanced	1097	61%	519	95%	578	46%	455	96%	64	90%
Total	1808		547		1261		476		71	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 52 - 2020-21 Grade 8 Reading Inventory

	All students		Students identified gifted in ELA		Students not identified gifted in ELA		Students identified gifted in ELA in a cluster		Students identified gifted not in ELA in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	200	11%	2	< 1%	198	14%	2	< 1%	0	0%
Basic	299	16%	8	2%	291	21%	8	2%	0	0%
Proficient	397	21%	37	7%	360	26%	35	8%	2	3%
Advanced	987	52%	450	91%	537	39%	380	89%	70	97%
Total	1883		497		1386		425		72	
Winter										
Below Basic	196	11%	1	< 1%	195	14%	1	< 1%	0	0%
Basic	266	14%	7	1%	259	19%	7	2%	0	0%
Proficient	340	18%	25	5%	315	23%	23	5%	2	3%
Advanced	1065	57%	462	93%	603	44%	393	93%	69	97%
Total	1867		495		1372		424		71	
Spring										
Below Basic	160	11%	2	< 1%	158	14%	2	< 1%	0	0%
Basic	209	14%	2	< 1%	207	18%	2	< 1%	0	0%
Proficient	277	18%	20	5%	257	23%	19	6%	1	2%
Advanced	878	58%	368	94%	510	45%	305	93%	63	98%
Total	1524		392		1132		328		64	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 53 - 2017-18 - 75 Lexile Gain on the Reading Inventory from Fall to Spring

Grade	All students			Students identified gifted in ELA			Students not identified gifted in ELA			Students identified gifted in ELA in a cluster			Students identified gifted not in ELA in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1680	991	59%	459	296	65%	1221	695	57%	411	270	66%	48	26	54%
7	1795	768	43%	418	160	38%	1377	608	44%	364	134	37%	54	26	48%
8	1636	605	37%	340	119	35%	1296	486	38%	296	98	33%	44	21	48%

Table 54 - 2018-19 - 75 Lexile Gain on the Reading Inventory from Fall to Spring

Grade	All students			Students identified gifted in ELA			Students not identified gifted in ELA			Students identified gifted in ELA in a cluster			Students identified gifted not in ELA in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1149	598	52%	297	180	61%	852	418	49%	266	163	61%	31	17	55%
7	1302	543	42%	327	111	34%	975	432	44%	302	102	34%	25	9	36%
8	1751	552	32%	418	117	28%	1333	435	33%	380	105	28%	38	12	32%

Table 55 - 2020-21 - 75 Lexile Gain on the Reading Inventory from Fall to Spring

Grade	All students			Students identified gifted in ELA			Students not identified gifted in ELA			Students identified gifted in ELA in a cluster			Students identified gifted not in ELA in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1786	935	52%	567	354	62%	1219	581	48%	488	302	62%	79	52	66%
7	1723	746	43%	541	225	42%	1182	521	44%	470	188	40%	71	37	52%
8	1440	580	40%	388	146	38%	1052	434	41%	324	125	39%	64	21	33%

Gifted Services – Middle School Cluster Model Study (2021-22)

Math Inventory – Complete Results

Table 56 - 2017-18 Grade 6 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	602	33%	18	4%	584	45%	5	1%	13	14%
Basic	662	36%	130	25%	532	41%	80	19%	50	55%
Proficient	519	28%	322	63%	197	15%	296	70%	26	29%
Advanced	42	2%	42	8%	0	0%	40	10%	2	2%
Total	1825		512		1313		421		91	
Winter										
Below Basic	175	23%	3	2%	172	28%	2	2%	1	2%
Basic	226	29%	17	11%	209	24%	3	3%	14	29%
Proficient	332	43%	97	63%	235	38%	65	61%	32	67%
Advanced	39	5%	37	24%	2	< 1%	36	34%	1	2%
Total	772		154		618		106		48	
Spring										
Below Basic	285	16%	2	< 1%	283	22%	0	0%	2	2%
Basic	332	19%	11	2%	321	25%	2	< 1%	9	10%
Proficient	835	48%	235	47%	600	48%	164	40%	71	79%
Advanced	307	18%	248	50%	59	5%	240	59%	8	9%
Total	1759		496		1263		406		90	

Table 57 - 2017-18 Grade 7 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math not in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	539	27%	7	2%	532	37%	0	0%	0	0%
Basic	436	23%	24	6%	412	29%	9	2%	15	26%
Proficient	740	39%	262	60%	478	33%	227	60%	35	61%
Advanced	168	9%	143	33%	25	2%	143	38%	0	0%
Total	1883		436		1447		379		57	
Winter										
Below Basic	144	19%	0	0%	144	25%	0	0%	0	0%
Basic	132	18%	2	1%	130	23%	0	0%	2	9%
Proficient	274	37%	44	24%	230	40%	25	6%	19	86%
Advanced	201	27%	136	75%	65	11%	135	84%	1	5%
Total	751		182		569		262		22	
Spring										
Below Basic	268	22%	1	< 1%	267	25%	0	0%	1	2%
Basic	217	18%	8	6%	209	19%	2	2	6	10%
Proficient	477	39%	37	27%	440	41%	18	19%	19	43%
Advanced	251	21%	92	67%	159	15%	74	78%	18	30%
Total	1213		138		1075		94		44	

Table 58 - 2017-18 Grade 8 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted not in Math in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	454	27%	2	< 1%	452	35%	1	< 1%	1	3%
Basic	434	26%	29	8%	405	31%	20	6%	9	27%
Proficient	572	34%	169	47%	403	31%	149	46%	20	59%
Advanced	213	13%	161	45%	52	4%	157	48%	4	12%
Total	1673		361		1312		327		34	
Winter										
Below Basic	196	39%	0	0%	196	44%	0	0%	0	0%
Basic	102	20%	1	2%	101	23%	0	0%	1	20%
Proficient	144	29%	28	55%	116	26%	24	52%	4	80%
Advanced	58	12%	22	43%	36	8%	22	48%	0	0%
Total	500		51		449		46		5	
Spring										
Below Basic	123	41%	0	0%	123	45%	0	0%	N/A	N/A
Basic	61	20%	2	7%	59	22%	2	8%	N/A	N/A
Proficient	74	25%	11	41%	63	23%	10	39%	N/A	N/A
Advanced	44	15%	14	52%	30	11%	14	54%	N/A	N/A
Total	302		27		275		26		1	

Table 59 - 2018-19 Grade 6 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	671	33%	31	5%	640	45%	26	5%	5	8%
Basic	646	32%	123	21%	523	37%	106	20%	17	27%
Proficient	626	31%	370	63%	256	18%	330	62%	40	65%
Advanced	75	4%	68	12%	7	< 1%	68	13%	0	0%
Total	2018		592		1426		530		62	
Winter										
Below Basic	342	25%	9	2%	333	33%	6	2%	3	6%
Basic	349	25%	36	9%	313	31%	27	8%	9	18%
Proficient	612	44%	259	66%	353	35%	222	65%	37	73%
Advanced	92	7%	87	22%	5	< 1%	85	25%	2	4%
Total	1395		391		1004		340		51	
Spring										
Below Basic	244	15%	3	< 1%	241	21%	2	< 1%	1	3%
Basic	303	18%	22	5%	281	24%	15	3%	7	18%
Proficient	780	47%	208	43%	572	49%	188	42%	20	51%
Advanced	319	19%	251	52%	68	6%	240	54%	11	28%
Total	1646		484		1162		445		39	

Table 60 - 2018-19 Grade 7 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math not in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	476	28%	8	2%	468	38%	3	< 1%	5	17%
Basic	416	25%	40	9%	376	30%	32	8%	8	28%
Proficient	620	37%	242	54%	378	31%	227	54%	15	52%
Advanced	175	10%	159	35%	16	1%	158	38%	1	3%
Total	1687		449		1238		420		29	
Winter										
Below Basic	193	23%	4	3%	189	26%	2	2%	2	9%
Basic	212	25%	12	9%	200	28%	9	8%	3	14%
Proficient	703	43%	78	59%	292	40%	66	60%	12	55%
Advanced	83	10%	38	29%	45	6%	33	30%	5	23%
Total	858		132		726		110		22	
Spring										
Below Basic	159	13%	1	< 1%	158	18%	1	< 1%	0	0%
Basic	184	15%	3	1%	181	21%	2	< 1%	1	5%
Proficient	466	39%	70	22%	396	45%	60	20%	10	48%
Advanced	396	33%	246	77%	150	17%	236	79%	10	48%
Total	1205		320		885		299		21	

Table 61 - 2018-19 Grade 8 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted not in Math in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	457	27%	7	2%	450	36%	2	< 1%	5	10%
Basic	374	22%	20	5%	354	28%	9	2%	11	22%
Proficient	573	34%	189	45%	384	31%	162	44%	27	55%
Advanced	263	16%	204	49%	59	5%	198	53%	6	12%
Total	1667		420		1247		371		49	
Winter										
Below Basic	206	42%	0	0%	206	43%	N/A	N/A	0	0%
Basic	137	28%	3	20%	134	28%	N/A	N/A	3	20%
Proficient	145	29%	9	60%	136	28%	N/A	N/A	9	60%
Advanced	7	1%	3	20%	4	< 1%	N/A	N/A	3	20%
Total	495		15		480		0		15	
Spring										
Below Basic	153	25%	2	6%	151	26%	0	0%	2	13%
Basic	126	21%	0	0%	126	22%	0	0%	0	0%
Proficient	269	44%	17	47%	252	44%	7	35%	10	63%
Advanced	61	10%	17	47%	44	8%	13	65%	4	25%
Total	609		36		573		20		16	

Table 62 - 2020-21 Grade 6 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted in Math in not a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	525	28%	24	4%	501	40%	6	1%	18	23%
Basic	522	28%	93	15%	429	34%	57	11%	36	45%
Proficient	468	25%	225	37%	243	19%	212	40%	13	16%
Advanced	342	18%	263	44%	79	6%	250	48%	13	16%
Total	1857		605		1252		525		80	
Winter										
Below Basic	430	23%	12	2%	418	33%	2	< 1%	10	12%
Basic	469	25%	63	10%	406	32%	37	7%	26	31%
Proficient	427	23%	160	27%	267	21%	131	25%	29	35%
Advanced	558	30%	368	61%	190	15%	350	67%	18	22%
Total	1884		603		1281		520		83	
Spring										
Below Basic	388	22%	3	< 1%	385	21%	0	0%	3	4%
Basic	357	20%	33	6%	324	26%	18	4%	15	20%
Proficient	343	19%	85	15%	258	21%	57	12%	28	37%
Advanced	701	39%	442	79%	259	21%	412	85%	30	40%
Total	1789		563		1226		487		76	

Table 63 - 2020-21 Grade 7 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster	
	#	%	#	%	#	%	#	%
Fall								
Below Basic	475	26%	20	3%	455	37%	3	< 1%
Basic	565	31%	121	20%	444	36%	69	13%
Proficient	377	21%	159	27%	218	18%	154	29%
Advanced	407	22%	299	50%	108	9%	298	57%
Total	1824		599		1225		524	
Winter								
Below Basic	329	18%	5	1%	324	27%	0	0%
Basic	473	27%	69	12%	404	34%	30	6%
Proficient	417	23%	137	24%	280	23%	116	23%
Advanced	567	32%	373	64%	194	16%	361	71%
Total	1786		584		1202		507	
Spring								
Below Basic	236	15%	8	2%	228	21%	1	< 1%
Basic	290	18%	33	7%	257	23%	12	3%
Proficient	362	23%	78	16%	284	26%	58	14%
Advanced	690	44%	356	75%	334	30%	335	83%
Total	1578		475		1103		406	

Table 64 - 2020-21 Grade 8 Math Inventory

	All students		Students identified gifted in Math		Students not identified gifted in Math		Students identified gifted in Math in a cluster		Students identified gifted not in Math in a cluster	
	#	%	#	%	#	%	#	%	#	%
Fall										
Below Basic	385	24%	14	4%	371	30%	5	2%	9	16%
Basic	577	37%	68	21%	509	41%	46	17%	22	39%
Proficient	380	24%	126	38%	254	20%	103	38%	23	41%
Advanced	236	15%	120	37%	116	9%	118	43%	2	4%
Total	1578		328		1250		272		56	
Winter										
Below Basic	315	20%	8	2%	307	25%	0	0%	8	14%
Basic	462	29%	37	11%	425	34%	21	8%	16	27%
Proficient	388	25%	97	30%	291	23%	78	29%	19	32%
Advanced	412	26%	187	57%	225	18%	171	63%	16	27%
Total	1577		329		1248		270		59	
Spring										
Below Basic	190	19%	2	1%	188	22%	0	0%	2	5%
Basic	275	27%	15	10%	260	30%	4	4%	11	28%
Proficient	232	23%	22	15%	210	245	11	10%	11	28%
Advanced	322	32%	110	74%	212	24%	94	86%	16	40%
Total	1019		149		870		109		40	

Gifted Services – Middle School Cluster Model Study (2021-22)

Table 65 - 2017-18 Students Meeting the Expected Average Growth on the Math Inventory from Fall to Spring

Grade	All students			Students identified gifted in Math			Students not identified gifted in Math			Students identified gifted in Math in a cluster			Students identified gifted not in Math in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1686	1209	72%	482	437	91%	1204	772	64%	396	366	92%	86	71	83%
7	1164	763	66%	136	107	79%	1028	656	64%	93	73	79%	43	34	79%
8	282	151	54%	27	23	85%	225	128	50%	26	22	85%	1	N/A	N/A

Table 66 - 2018-19 - Students Meeting the Expected Average Growth on the Math Inventory from Fall to Spring

Grade	All students			Students identified gifted in Math			Students not identified gifted in Math			Students identified gifted in Math in a cluster			Students identified gifted not in Math in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1554	1103	71%	466	387	83%	1088	716	66%	430	359	84%	36	28	78%
7	1145	797	70%	311	244	79%	834	553	66%	291	229	79%	20	15	75%
8	580	353	61%	35	24	69%	545	329	60%	19	13	68%	16	11	69%

Table 67 - 2020-21 - Students Meeting the Expected Average Growth on the Math Inventory from Fall to Spring

Grade	All students			Students identified gifted in Math			Students not identified gifted in Math			Students identified gifted in Math in a cluster			Students identified gifted not in Math in a cluster		
	N	#	%	N	#	%	N	#	%	N	#	%	N	#	%
6	1676	933	56%	556	376	67%	1120	557	50%	485	329	68%	71	47	66%
7	1491	977	66%	469	305	65%	1022	672	66%	404	258	64%	65	47	72%
8	947	628	66%	144	113	79%	803	515	64%	108	84	78%	36	29	81%