

INTERNAL MONITORING REPORT

November 17, 2021

Policy: **1.1 Schooling**
Policy Category: **Ends**
Period Monitored: **2020-21 School Year**

This is my monitoring report on the Board of Education's Ends Policy 1.1 Schooling. This report is presented in accordance with the Board's monitoring schedule. I certify that the information is true and complete.

Chris Gdowski, Superintendent
November 10, 2021

POLICY WORDING:

Students enrolled in Adams 12 Five Star Schools shall have the knowledge, learning and life skills necessary to prepare them for further learning in the next grade level or life transition.

- a. Students shall build and demonstrate strong content knowledge in their required and selected courses.*
- b. Students will have the ability to communicate their knowledge through:*
 - *writing and speaking*
 - *the use of technical and non-technical means*
 - *and in response to varying demands of audience, task, purpose and discipline*
- c. Students will have the opportunity and expectation to demonstrate comprehension and critical analysis skills.*
- d. Students in all subgroups will show appropriate academic growth each year.*

Life Skills

Students shall have opportunities to develop and demonstrate independence, self-directed learning, creativity, problem-solving, adaptability, critical thinking, perseverance, global and cultural understanding and effective communication skills in order to successfully achieve their college, career and life aspirations

Data collected and reported in support of monitoring this policy include

1. state and district assessment achievement and growth data;
2. an analysis of complex standards across grade levels for reading, writing, math, science, and social studies; and
3. examples of complex demonstrations of learning occurring in schools.

CONTEXT RELATED TO ACHIEVEMENT AND GROWTH DATA REPORTED:

Due to the cancellation of state testing in the spring of 2020 and the limited state testing in the spring of 2021, many State data sources are not available, especially related to growth. The only State assessment data reported below are achievement data for PSAT and SAT because the participation rate was roughly 90% for each assessment, though there was underrepresentation of students receiving free and reduced lunch in the assessed population compared to the district overall. For the elementary and middle school levels, NWEA MAP data will be used. Finally, PALS data are reported for the elementary level as well.

ACHIEVEMENT DATA:

Percentage of Students Scoring Above the 50th Percentile on NWEA MAP Assessments

School Level	Content Area	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
Elementary	Reading	53.0%	48.4%	47.7%	-5.3%
	Math	50.3%	46.7%	41.4%	-8.9%
Middle	Reading	55.8%	51.7%	54.1%	-1.7%
	Math	56.9%	48.2%	50.9%	-6.0%

Percentage of Students Meeting College Readiness Benchmarks (%CR) on PSAT and SAT

Test	Content Area	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
PSAT 9	Evidence-based Reading & Writing	63.9%	66.2%	65.3%	1.4%
	Math	50.7%	53.0%	44.4%	-6.3%
PSAT 10	Evidence-based Reading & Writing	62.8%	62.7%	65.5%	2.7%
	Math	43.0%	41.1%	38.8%	-4.2%
SAT	Evidence-based Reading & Writing	55.7%	54.1%	56.3%	0.6%
	Math	38.4%	36.9%	36.0%	-2.4%

Percentage of Students Scoring Below the Significant Reading Deficiency (SRD) Cut on PALS Fall-Spring

Grade Level	Fall 17-18	Spring 17-18	Change 17-18	Fall 18-19	Spring 18-19	Change 18-19	Fall 20-21	Spring 20-21	Change 20-21
K	25.3%	13.5%	-11.8%	28.0%	14.8%	-13.2%	29.7%	20.5%	-9.2%
1	18.4%	17.7%	-0.7%	18.7%	23.4%	4.7%	23.7%	27.9%	4.2%
2	31.7%	23.8%	-7.9%	33.3%	24.9%	-8.4%	38.1%	29.5%	-8.6%
3	28.3%	23.2%	-5.0%	35.2%	25.9%	-9.3%	38.0%	29.8%	-8.2%
K-3	26.0%	19.7%	-6.3%	28.9%	22.4%	-6.5%	32.5%	27.2%	-5.3%

GROWTH DATA:**Fall-Spring Median Conditional Growth Percentile (MCGP) on NWEA MAP by Level**

School Level	Content Area	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
Elementary	Reading	57	52	39	-18
	Math	56	53	38	-18
Middle	Reading	53	53	46	-7
	Math	60	60	45	-15

Fall-Spring Percentage of Students Meeting Growth Projection (%GP) on NWEA MAP by Level

School Level	Content Area	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
Elementary	Reading	58.7%	55.3%	43.2%	-15.5%
	Math	57.0%	55.6%	42.1%	-14.9%
Middle	Reading	56.0%	56.4%	48.4%	-7.6%
	Math	64.4%	63.7%	49.3%	-15.1%

Fall-Spring MCGP on NWEA MAP by Disaggregated Group

Content Area	Subgroup	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
Reading	Asian	58	56	42	-16
	Black	52	51	39	-13
	Hispanic	51	50	36	-15
	Native American	50	47.5	38	-12
	Two or More Races	58.5	55	45	-13.5
	White	57	55	46	-11
	ELL	48	46	27	-21
	Free/Reduced Lunch	51	50	35	-16
	Gifted & Talented	61	54	47	-14
	Students with IEPs	41	39	28	-13
Math	Asian	62	60	43	-19
	Black	55	47	30	-15
	Hispanic	51	51	31	-20
	Native American	56	45	29.5	-26.5
	Two or More Races	58	55	45	-13
	White	59	58	46	-13
	ELL	51	50	26	-25
	Free/Reduced Lunch	51	51	31	-20
	Gifted & Talented	63	60	49	-14
	Students with IEPs	44	40	31	-13

Fall-Spring %GP on NWEA MAP by Disaggregated Group

Content Area	Subgroup	Spring 2018	Spring 2019	Spring 2021	Change 2018 to 2021
Reading	Asian	60.9%	57.6%	45.4%	-15.5%
	Black	56.0%	53.1%	38.5%	-17.5%
	Hispanic	54.4%	53.0%	39.7%	-14.7%
	Native American	54.1%	49.5%	44.3%	-9.8%
	Two or More Races	62.8%	57.0%	47.7%	-15.1%
	White	59.0%	57.5%	48.8%	-10.2%
	ELL	50.7%	47.9%	33.5%	-17.2%
	Free/Reduced Lunch	54.1%	52.6%	39.3%	-14.8%
	Gifted & Talented	63.0%	57.5%	49.1%	-13.9%
	Students with IEPs	45.7%	43.7%	34.7%	-11.0%
Math	Asian	67.2%	64.6%	47.7%	-19.5%
	Black	59.0%	51.8%	34.0%	-25.0%
	Hispanic	53.4%	53.5%	37.6%	-15.8%
	Native American	57.7%	49.5%	40.5%	-17.2%
	Two or More Races	63.1%	58.2%	49.1%	-14.0%
	White	62.5%	61.2%	49.7%	-12.8%
	ELL	52.1%	50.7%	33.0%	-19.1%
	Free/Reduced Lunch	52.9%	52.5%	37.1%	-15.8%
	Gifted & Talented	67.1%	64.7%	51.7%	-15.4%
	Students with IEPs	46.1%	45.0%	37.7%	-8.4%

STANDARDS ANALYSIS DATA REPORTED:

The Colorado Department of Education (CDE) adopted the Colorado Academic Standards (CAS), which provide a road map to help ensure students are successful in college, careers, and life. The Adams 12 Learning Services Department developed a Guaranteed and Viable Curriculum (GVC) for each content area aligned to the CAS. The GVC provides a well-articulated structure for teachers to follow to enable them to provide aligned, rigorous instruction to all students. Each GVC includes standards that require cognitively complex content designed to prepare students for postsecondary success. The following are examples of content standards, links to the GVC, and cognitively demanding tasks required of Adams 12 students.

Reading – Reading Literature Text – Standard 6

Grade Level	Standard	Unit(s) of Study
K	With prompting and support, name the author and illustrator of a story and define the role of each in telling the story.	Unit 1: Retelling with Details
3	Distinguish their own point of view from that of the narrator or those of the characters.	Unit 1: The Reader and Characters
5	Describe how a narrator's or speaker's point of view influences how events are described.	Unit 1: Traversing Themes
6	Explain how an author develops the point of view of the narrator or speaker in a text.	Unit 4: Analyzing Author's Craft
9	Analyze a particular point of view or cultural experience reflected in a work of literature from outside the United States, drawing on a wide reading of world literature.	Unit 5: Literary Analysis: Culture & Perspective
12	Analyze a case in which grasping a point of view requires distinguishing what is directly stated in a text from what is really meant (e.g., satire, sarcasm, irony, or understatement).	Unit 6: Comparative Literary Analysis

RL 5.6 Describe how a narrator's or speaker's point of view influences how events are described.

- readers describe how a narrator's or speaker's point of view influences how events are described by noticing patterns in the descriptive details, determining what those details reveal about the narrator or speaker, and explaining how the details influence the way the events are communicated.

Sample Prompt from Grade 5 Unit Assessment:

After reading the *Excerpt from The Midnight Fox* by Betsy Byars, rewrite paragraphs 4-8 from the Fox's point of view.

RL.6.6 Explain how an author develops the point of view of the narrator or speaker in a text.

- Readers explain aspects of texts by describing details relevant to their purpose.
- Readers analyze how an author develops the viewpoint of the narrator or speaker in a text by identifying patterns in details, images, and words that the author uses in connection to the perspective or beliefs of the narrator or speaker and then analyzing what these patterns demonstrate about the viewpoint of the narrator or speaker.

Sample 6th grade prompt:

In “The Curse of the Poisoned Pretzel,” the reader is strongly encouraged to believe that Skidmore is guilty of poisoning his brother Manchester. Explain several ways that the author develops this point of view without actually stating that Skidmore is guilty. Be sure to use evidence from the text to support your response.

RL.9.6 Analyze how the author unfolds an analysis or series of ideas or events, including the order in which the points are made, how they are introduced and developed, and the connections that are drawn between them.

- Readers analyze a particular point of view in a work of literature from outside of the United States by identifying details that intentionally reveal a perspective and interpreting how that perspective was influenced by the larger cultural context in which the text was written.
- Readers analyze a particular cultural experience in a work of literature from outside of the United States by identifying details that relate to the interaction of the individual(s) with a culture, and interpreting what the interaction reveals about the larger cultural context in which the text was written.

Sample 9th grade prompt: How does the tone of Dunya Mikhail’s poem “The War Works Hard” reveal her point of view about war as an Iraqi?

Writing – Standard 2 – Informational Writing

Grade Level	Standard	Unit(s) of Study
K	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.	Unit 3: How-To’s Unit 5: Information Writing Unit 7: Shared Research
3	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <ul style="list-style-type: none">• Introduce a topic and group related information together; include illustrations when useful to aiding comprehension.• Develop the topic with facts, definitions, and details.• Use linking words and phrases (e.g., <i>also</i>, <i>another</i>, <i>and</i>, <i>more</i>, <i>but</i>) to connect ideas within categories of information.• Provide a concluding statement or section.	Unit 2: Information Writing Unit 4: Research Writing
5	Write informative/explanatory texts to examine a topic and convey ideas and information clearly. <ul style="list-style-type: none">• Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.• Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.• Link ideas within and across categories of information using words, phrases, and clauses (e.g., <i>in contrast</i>, <i>especially</i>).• Use precise language and domain-specific vocabulary to inform about or explain the topic.	Unit 2: Information Writing Unit 4: Research Writing

	<ul style="list-style-type: none"> • Provide a concluding statement or section related to the information or explanation presented. 	
6	<p>Write informative/explanatory texts to examine a topic and convey ideas, concepts, and information through the selection, organization, and analysis of relevant content.</p> <ul style="list-style-type: none"> • Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension. • Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples. • Use appropriate transitions to clarify the relationships among ideas and concepts. • Use precise language and domain-specific vocabulary to inform about or explain the topic. • Establish and maintain a formal style. • Provide a concluding statement or section that follows from the information or explanation presented. 	<p>Unit 2: Becoming Critical Consumers of Information</p> <p>Unit 5: Examining Different Approaches</p>
9	<p>Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <ul style="list-style-type: none"> • Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. • Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. • Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. • Use precise language and domain-specific vocabulary to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. • Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic). 	<p>Unit 2: Literary Analysis</p> <p>Unit 3: Craft Analysis and Researched Presentation</p> <p>Unit 5: Literary Analysis: Culture & Perspective</p>

12	<p>Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.</p> <ul style="list-style-type: none"> • Introduce a topic; organize complex ideas, concepts, and information so that each new element builds on that which precedes it to create a unified whole; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension. • Develop the topic thoroughly by selecting the most significant and relevant facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic. • Use appropriate and varied transitions and syntax to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts. • Use precise language, domain-specific vocabulary, and techniques such as metaphor, simile, and analogy to manage the complexity of the topic. • Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing. • Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic). 	<p>Unit 2: Initiating Inquiry</p> <p>Unit 4: Interpreting Shakespearean Drama</p> <p>Unit 6: Comparative Literary Analysis</p>
----	---	--

Grade 5

W.5.2.a Introduce a topic clearly, provide a general observation and focus, and group related information logically; include formatting (e.g., headings), illustrations, and multimedia when useful to aiding comprehension.

- writers use introductions to engage the reader in the text.
- writers use headings to indicate the organization of informational texts.
- writers use illustrations and multimedia to aid readers' comprehension of informational texts.

W.5.2.b Develop the topic with facts, definitions, concrete details, quotations, or other information and examples related to the topic.

- writers use facts, definitions, concrete details, and quotations to develop ideas.

W.5.2.c Link ideas within and across categories of information using words, phrases, and clauses (e.g., in contrast, especially).

- writers use transitions to help readers understand how information is related within and across categories.

W.5.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

- writers use concrete words and domain-specific vocabulary to communicate information precisely.

W.5.2.e Provide a concluding statement or section related to the information or explanation presented.

- writers use conclusions to bring a sense of closure to a piece of writing.

Sample 5th grade prompt:

Sample Prompt: (*PARCC Sample Item*) You have read three articles about penguin rescue efforts after an oil spill.

- from “The Amazing Penguin Rescue” by Lauren Tarshis
- “The Amazing Penguin Rescue” by Dyan deNapoli
- “Update on Penguin Rescue Efforts from Oil Spill in South Atlantic”

Write an essay explaining the similarities and differences in each article’s point of view about penguin rescue efforts after an oil spill. Support your essay with information from all **three** sources.

5th grade student sample: This sample of work is from a 5th grade student outside of Adams 12 that is included in the Unit of Study as an exemplar.

Grade 6

W.6.2.a Introduce a topic; organize ideas, concepts, and information, using strategies such as definition, classification, comparison/contrast, and cause/effect; include formatting (e.g., headings), graphics (e.g., charts, tables), and multimedia when useful to aiding comprehension.

- writers introduce topics by showing readers the significance or relevance of the topic.
- writers select and use organizational strategies to convey the full sense of a topic by considering how different patterns of organization support different purposes in writing.
- writers determine if they should include formatting by considering if presenting information in sections, and/or emphasizing information through font choices or layout would clarify ideas.
- writers determine if they should include graphics by considering if visual information would clarify or contribute to ideas presented in words.
- writers determine if they should include multimedia by considering if audio, visual, or providing their audience access to digital sources would clarify or contribute to ideas presented in words.

W.6.2.b Develop the topic with relevant facts, definitions, concrete details, quotations, or other information and examples.

- writers develop their topic by selecting information and details that will best help the writer expand the audience’s understanding.

W.6.2.c Use appropriate transitions to clarify the relationships among ideas and concepts.

- writers select appropriate transitions by determining which words and phrases best create continuity and progression for the reader.
- writers use transitions to clarify relationships by determining which words and phrases best express connections between significant ideas and concepts.

W.6.2.d Use precise language and domain-specific vocabulary to inform about or explain the topic.

- writers use precise language by considering connotative meaning of words and selecting words that best control for ambiguity and/or redundancy.
- writers use domain-specific vocabulary by selecting words that are used by a particular profession or group related to the topic.

W.6.2.e Establish and maintain a formal style.

- writers establish and maintain a formal style by using academic and domain-specific vocabulary, and a mostly objective tone.

W.6.2.f Provide a concluding statement or section that follows from the information or explanation presented.

- writers end their writing by drawing conclusions about their topic that are coherent and logically connected to the focus of their writing.

Sample 6th grade prompt:

After researching _____ (informational texts on _____ content), write _____ (product) in which you explain _____ (content). Support your discussion with evidence from the texts.

[Sample of student work for writing:](#) This is a response from a 6th grade student who met expectations.

Grade 9

W.9.2.a Introduce a topic; organize complex ideas, concepts, and information to make important connections and distinctions; include formatting (e.g., headings), graphics (e.g., figures, tables), and multimedia when useful to aiding comprehension.

- writers introduce readers to a topic by providing context, establishing relevance, and/or engaging the reader.
- writers begin to organize their writing by determining what similarities and differences between ideas, concepts, and information they want to highlight in order to convey their message, and then presenting details in an order that fits that purpose.
- writers determine if they should include formatting by considering if presenting information in sections, and/or emphasizing information through font choices or layout would clarify ideas.
- writers determine if they should include graphics by considering if visual information would clarify or contribute to ideas presented in words.
- writers determine if they should include multimedia by considering if audio, visual, or providing their audience access to digital sources would clarify or contribute to ideas presented in words.

W.9.2.b Develop the topic with well-chosen, relevant, and sufficient facts, extended definitions, concrete details, quotations, or other information and examples appropriate to the audience's knowledge of the topic.

- writers develop their topic by selecting information and details that will best help the writer expand the audience's understanding.
- writers take into account the knowledge level of their audience by determining a specific audience; researching what those audience members likely already know; and then addressing specific gaps in understanding.

W.9.2.c Use appropriate and varied transitions to link the major sections of the text, create cohesion, and clarify the relationships among complex ideas and concepts.

- writers select appropriate and varied transitions by determining which words and phrases best create continuity and progression for the reader.
- writers link major sections of a text by considering how the ideas presented in one section relate to the ideas in the following section and then crafting transitional statements and/or using headings to indicate the relationship.
- writers create cohesion by choosing words, phrases, and clauses that link the information presented, in order to meet the central purpose of the text.
- writers select appropriate and varied transitions by determining which words and phrases best create continuity and progression for the reader.

W.9.2.d Use precise language and domain-specific vocabulary to manage the complexity of the topic.

- writers use precise language by considering connotative meaning of words and selecting words that best control for ambiguity and/or redundancy.
- writers use domain-specific vocabulary by selecting words that are used by a particular profession or group related to the topic.

W.9.2.e Establish and maintain a formal style and objective tone while attending to the norms and conventions of the discipline in which they are writing.

- writers establish and maintain a formal style by using academic and domain-specific vocabulary, and an objective, authoritative tone.
- writers establish and maintain an objective tone by avoiding personal pronouns, words that indicate a personal feeling, and emotive words that indicate an opinion on the part of the writer.
- writers attend to the norms and conventions of a discipline by consulting style guides, mentor texts, and other resources.

W.9.2.f Provide a concluding statement or section that follows from and supports the information or explanation presented (e.g., articulating implications or the significance of the topic).

- in concluding statements or sections, writers articulate the implications or significance of the topic by explaining the relevance of the information for the reader.

Sample 9th grade prompt:

After researching “[Pyramus and Thisbe](#)” and studying *Romeo and Juliet*, analyze how the characters and themes are depicted in different time periods. Use evidence from both texts to support your analysis.

[Sample of Student Work](#) from grade 11 to see how the skills of this standard grow over time.

Math – Practice Standard 3 – Construct Viable Arguments and Critique the Reasoning of Others

General Description: Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

School Level	Level Specific Language	Units
Elementary	An elementary student may discuss what it means to make a conjecture and how to use mathematical reasoning to make arguments for or against conjectures.	Math Practice Standard 3 is incorporated into all units of study in alignment with complex tasks
Middle	A middle school student might justify their conclusions, communicate them to others and respond to the arguments of others.	
High	A high school student might use counterexamples to validate an argument, while also asking questions to clarify arguments that are flawed.	

Lesson 8-4: Children use clues to make conjectures and arguments about the total number of chairs in a room.

► Checking a Conjecture

Math Journal 2, p. 261; Student Reference Book, p. 12

WHOLE CLASS

SMALL GROUP

PARTNER

INDEPENDENT

Math Message Follow-Up Briefly discuss the terms **conjecture** and **argument** using the definitions on page 12 in the *Student Reference Book*. Refer children to **GMP3.1** on the Standards for Mathematical Process and Practice Poster. Explain that when we solve math problems we often start by using information in the problem and our mathematical thinking to make a conjecture. Use terms such as *educated guess* and *claim* interchangeably with *conjecture*. Explain that a mathematical argument is not like a social argument or disagreement, and emphasize that mathematical arguments use mathematical reasoning to tell or show whether a conjecture is right or wrong. **GMP3.1**

Involve children in reading the problem and clues on *Math Journal 2*, page 261 again as a class. Ask:

- What does the problem ask you to find out? **GMP1.1** Sample answer: The total number of chairs that Ms. Soto set up for Math Night
- What information in the problem do you need in order to find a solution? **GMP1.1** Sample answer: You need to know the clues and that every row has the same number of chairs in it. If no one mentions it, remind children that the room has a limit of 35 chairs.

Help children think through the clues. Ask:

- *What can we learn from Clue A?* Sample answer: When we set up the chairs in rows of 2, there will be 1 chair left over. So the answer has to be an odd number.
- *What does Clue C tell us about Ms. Soto's chairs?* Sample answer: When we set up the chairs in rows of 4, there will be 1 chair left over.
- *What happens when we set up the chairs in rows of 5?* **GMP1.1** Sample answer: There are no leftover chairs.

Read Joi's conjecture with the class and ask:

- *What is Joi's conjecture?* Sample answer: Joi thinks that Ms. Soto set up 13 chairs.
- *How could you make an argument to show whether Joi's conjecture is correct or not?* **GMP3.1, GMP4.2** Sample answers: I could draw pictures of 13 chairs set up in groups of 2, 3, 4, and 5 to see whether they match the clues. I could use the clues to explain why 13 chairs does or does not work.

Ask children to use the clues to make a mathematical argument for or against Joi's conjecture of 13 chairs. Have children first share their arguments with a partner, and then ask for volunteers to share their arguments with the class. Some children may argue that Joi's conjecture is correct because it works for Clues A, B, and C. When children make an argument for or against a conjecture, ask them to explain their reasoning. Sample answer: 13 chairs works for Clue A because when I drew a picture of the chairs in rows of 2, there is 1 chair left over. Make sure that at least one child argues that 13 chairs could not be right because when the chairs are set up in rows of 5, there are 3 chairs left over, and Clue D says there will be no chairs left over. Emphasize to children that for a conjecture to be correct, it must work for all of the clues.

Tell children that their next step will be to make their own conjectures about the number of chairs that Ms. Soto set up.

[Math Grade 6 Unit 3: Ratios and Rates](#)

Standards for Mathematical Practice:

In this unit students:

- Analyze and use appropriate quantities and pay attention to units in problems that require reasoning with ratios (MP2: Reason Abstractly and Quantitatively).
- Construct arguments that compare quantities using ratios or rates (MP3: Construct viable arguments and critique the reasoning of others).
- Use tables, tape diagrams, and double number line diagrams to provide a structure for seeing equivalency between ratios (MP7: Look for and make use of structure).



Self-Assessment for Problem Solving

Solve each exercise. Then rate your understanding of the success criteria in your journal.



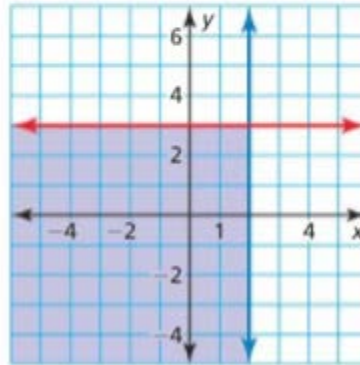
6. You buy 10 pounds of bird seed at Store A for \$11.50. Your friend buys 15 pounds of bird seed at Store B for \$19.50. How much less would you spend by buying 20 pounds of bird seed at the store with the better deal?
7. A person hikes 4 miles in 2.5 hours. Find the unit rate in miles per hour. Then find the unit rate in hours per mile. How is each unit rate useful in a real-life situation?
8. **DIG DEEPER!** You buy 11 bagels with a \$20 bill. How much change do you receive? How many more bagels could you buy?

Integrated Math 1 - Systems of Linear Equations

- 5.7 - Systems of Linear Inequalities - This section moves students from graphing one linear inequality to graphing a system of inequalities. With that, they will be able to determine if a solution is viable or not.
 - **SMP - Construct Viable Arguments and Critique the Reasoning of Others**
Section 5.7 - Communicate Your Answer #5
 - This task asks if all systems of linear inequalities have a solution and expects students to explain their reasoning.
 - This provides a good opportunity to push students' responses into improved mathematical reasoning.
 - If the student answers "no" to the question, keep pushing students as to why until they create a counter-example. It is important for students to understand that a negative response can be easily proven accurate with a single counter-example, which is the core piece of a valid negative viable argument.
 - If the student answers "yes" to the question, they must have some misconception about the situation. Continue to ask "why" to their reasoning until they get to their misconception (whether they recognize it as such or not) or until they have outlined a reasonable (although flawed) logical argument.
 - Encourage other students to respectfully challenge one another's differing perspectives on the question. Remind them to challenge the thought and student statements, but not the student themselves.

Communicate Your Answer

3. How can you graph a system of linear inequalities?
4. When graphing a system of linear inequalities, which region represents the solution of the system?
5. Do you think all systems of linear inequalities have a solution? Explain your reasoning.
6. Write a system of linear inequalities represented by the graph.



Science - NGSS Science and Engineering Practices - Obtaining, Evaluating, and Communicating Information

General Description: Scientists and engineers must be able to communicate clearly and persuasively the ideas and methods they generate. Critiquing and communicating ideas individually and in groups is a critical professional activity.

Grade Level	Level Specific Language	Units
K-2 Practices	Obtaining, evaluating, and communicating information in K–2 builds on prior experiences and uses observations and texts to communicate new information.	The science practice standard of planning and carrying out investigations is integrated into all of the units of study.
3-5 Practices	Obtaining, evaluating, and communicating information in 3–5 builds on K–2 experiences and progresses to evaluating the merit and accuracy of ideas and methods.	
6-8 Practices	Obtaining, evaluating, and communicating information in 6–8 builds on K–5 experiences and progresses to evaluating the merit and validity of ideas and methods.	
9-12 Practices	Obtaining, evaluating, and communicating information in 9–12 builds on K–8 experiences and progresses to evaluating the validity and reliability of the claims, methods, and designs.	

Elementary Tasks Aligned with Obtaining, Evaluating, and Communicating Information

Link to Science Units of Study: Grade Kindergarten: Unit 2 - Pushes and Pulls
Unit Overview: A study of the effects of different strengths or directions of pushes and pulls on the motion of objects.

Engage: Opening Activity - Access Prior Learning/Stimulate Interest/Generate Questions

- Post a picture and ask students what a crayfish is (a freshwater shellfish). Tell students that you have a special crayfish that can do tricks. Its best trick is **balancing** on one of your fingertips.
- Bring out one of the tagboard crayfish. Balance it flat (with your finger under the middle of its body) on your finger.
- Ask students if they think they could do the same trick if they had a crayfish.

Explore: Lesson Description - Materials Needed/Probing and Clarifying Questions

- Organize students into groups
- Assign a Materials Collector for each group
- Have the Materials Collector get a crayfish for each student in their groups.
- Challenge students to copy your trick
- After successful balancing, ask students to find out if the crayfish can do other balancing tricks. Suggest balancing the crayfish on its side, tail, or “nose”.
- Introduce the Focus Question and Learning Intentions.

Elaborate: Applications and Extensions

- Introduce the clothespins.
- Tell students that they may find clothespins useful for getting their crayfish to balance in different positions.
- Let the Materials Collector get two clothespins for each student in their group.
- Visit students as they work
- **If they clip the clothespins on the crayfish like legs, remind them that the crayfish should balance on their fingers**
- After several minutes if students are not finding new ways to balance their crayfish, suggest they try to balance the crayfish on its side (hint: they may need to move the clothespins)
- Wait for students to discover how to balance the crayfish on its nose before moving on (it will sweep across the classroom once it’s discovered)

Explain: Concepts Explain and Vocabulary Defined

- Gather students together and ask
 - “What did you do to get the crayfish to balance on its nose?”
 - “Does it matter where you put the clothespins?”
- Introduce the vocabulary word **counterweight**: “When you put a weight, like a clothespin, on the crayfish to make it balance on its nose, it is called a **counterweight**. You can use counterweights to make things balance in new ways.”
 - Add the new vocabulary to the word wall or class content chart

Elaborate: Applications and Extensions

- Challenge students to use counterweights to find new ways to balance their crayfish

Explain/Evaluate: Concepts Explain and Vocabulary Defined

- Have the Materials Collector return crayfish and clothespins to the materials station
- Gather the class
 - Ask the class (consider using a structure for sharing):
 - *How do you know when something is balanced?*
 - *Think about all of the different ways you balanced the crayfish. Is there anything you noticed that is always the same?*
 - Create a class word bank by asking students what words they might need to remember when they, write, read or talk about balance. If they don’t mention these words, you might add: crayfish, balance, clothespins, counterweights
- Revisit the Focus Question and Learning Intentions.

Evaluate: Formative Monitoring (Questioning/Discussion):

- [Trick Crayfish Exit Ticket](#) (A picture of a balanced object, and students are asked to label the balance and counterweights.)

Link to Science Units of Study: Grade 5: Unit 1 - Properties of Matter

Unit Overview: A study of matter and how it can be identified, separated and conserved.

Engage:

- Have students share what they have been learning about the past few days (conservation of mass).
- Either demonstrate combining vinegar and baking soda, weighing the reactants and products, or watch [this video](#) to illustrate that the mass of the reactants (baking soda and vinegar) and the product are DIFFERENT. (In the video, the starting mass is 35 grams, the ending is 34.2 grams.) *When we did this investigation a few days ago, we saw the SAME thing. Some of the mass disappeared!*
- Ask “We have been learning about the conservation of mass and how matter isn’t created or destroyed, so what happened here? **Where did the missing mass go?**” Allow students to share thinking at teams and as a whole class. Allow and accept ALL answers.

Explore (Day 1):

- Say “Some of you mentioned that bubbles left the container, and that some liquids spilled over the side of the container. Our job today is to create a method of measuring all of the matter in this reaction. You can have access to baking soda, vinegar, a scale, cups, plastic bags, etc... to create a procedure (directions) for measuring the mass of ALL of the products including the gas bubbles and any spillage.”
- Cooperative teams of 3-5 should use the [Mystery of the Missing Mass Journal Page](#) to create a plan and procedure. Resist the urge to correct or tweak team’s procedures, and allow for error and collaboration.
- Be sure that students have a plan to include the weight of the materials they are using to contain the materials in their final equation.
- Students should include approximate amounts of each reactant (note that too much vinegar can cause balloons and bags to explode!)
- Consider having teams share ideas, give feedback and ask questions if further refinement is needed.
- Have students test their methods, allowing for revision if materials and time permit.
- Students should complete the second page of the Mystery of the Missing Mass Journal Page as they gather data.

Explain:

- After students have carried out their investigation, allow them to share what they have learned. Discuss the statement: The weight of matter stays the same even when it is heated, cooled, mixed, or changed.
 - “Is this statement always true?”
 - “Is this statement true for all types of changes?”
 - “How would you test other types of chemical changes?”
- If students’ investigations were not able to capture all of the gas, consider modeling a method that worked, AND asking why they could have changed in their plan.
- Say: “Even though we can’t see it, gas is still a type of matter. It takes up space and has mass. No mass was “lost” in this chemical reaction, it just changed forms from a liquid to a gas.”

Elaborate:

- Show students an empty balloon (or plastic bag) and weigh it. Blow the balloon up and ask students “Would you expect this full balloon to weigh more, less, or the same? Why?”
- Give students ten minutes to record their predictions, making sure they have evidence to support their claim.
- Guide the class through a discussion of the question, focusing on evidence.
- Optional Extension for Investigation: If a full balloon weighs more, why do some balloons float up in the sky?

Observing Plant and Animal Cells



Background Information:

One of the first scientists to look at cells under a microscope was an English scientist by the name of **Robert Hooke**. He viewed and described the appearance of cork under the microscope and decided to name the tiny box-like structures that he observed “cells” because they looked like the small chambers where monks lived.

By the early part of the 19th century, it was accepted that all living things are composed of cells. Cells come in a variety of shapes and sizes, and cells perform different functions. Although cells may appear outwardly different, they resemble each other because they share common structures. In this lab you will look at two types of cells, a human cheek cell and an onion cell and see how they are similar and how they are different.

Onion Cell Procedure:

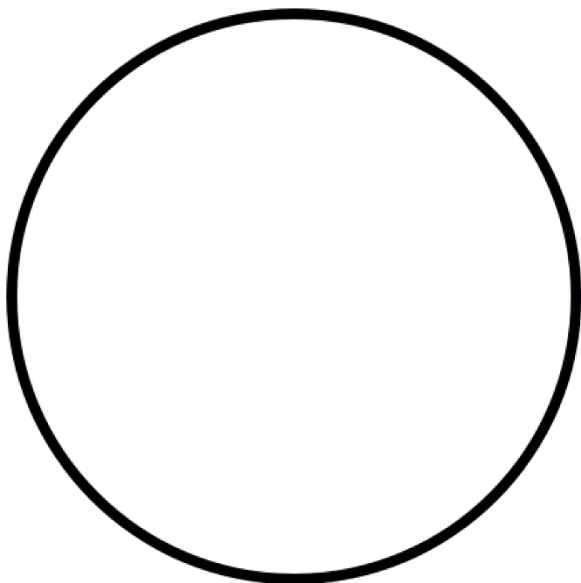
1. Set up your microscope.
2. Get a clean slide. Place a drop of water on the slide. Take a piece of onion from the front of the room. Obtain one layer of epidermal tissue (your teacher will demonstrate this in class). Place the layer of tissue on a slide. Place a cover-slip on the slide, slowly lowering it over the sample to avoid creating air bubbles.
3. Place the slide on the stage and view the slide under the low power. Once you have found an area with several good cells, switch to high power. Remember to only use the fine adjustment to focus at higher powers.
4. Draw one or two onion cells in detail on the highest power. When drawing objects as seen under a microscope, it is important to:
 - a) draw clearly; make distinct lines
 - b) only use pencil
 - c) provide the name of the object and the power under which it was observed
5. Clean the slide and dry.

Cheek Cell Procedure:

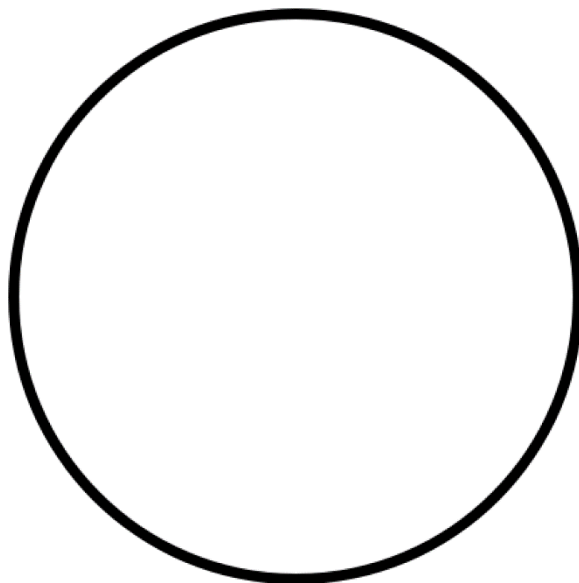
1. Put a drop of methylene blue on a slide. Caution: methylene blue will stain clothes and skin.
2. Gently scrape the inside of your cheek with the flat side of a toothpick. Scrape lightly.
3. Stir the end of the toothpick into the stain and throw the toothpick away.
4. Place a cover-slip onto the slide
5. Use low power to focus. You probably will not see the cells at this power. Once you have found an area with several good cells, switch to high power.
6. Neatly draw one or two cheek cells.
7. Clean, dry, and return slide.

Drawings:

Onion Cell



Cheek Cell



Discussion Questions:

Answer the following questions in complete sentences

1. How does the **shape** of the onion cells **differ** from that of the cheek cells?

2. Which cells seem to be arranged in a more **regular, repeated** pattern?

3. What similarities were you able to see in both types of cells?

4. One difference between plant and animal cells is that plant cells contain chloroplasts. Chloroplasts are where photosynthesis takes place in plant cells. Were any chloroplasts visible in the onion cells? Why or why not? (Think about how/where onions grow!) Explain your reasoning.

High School Tasks Aligned with Obtaining, Evaluating, and Communicating Information: [Electron Configuration POGIL.pdf](#)

Social Studies - Colorado Academic Standards (2020)

Economics teaches how society manages its scarce resources, how people make decisions, how people interact in the domestic and international markets, and how forces and trends affect the economy as a whole. Personal financial literacy applies the economic way of thinking to help individuals understand how to manage their own scarce resources using a logical decision-making process of prioritization based on analysis of the costs and benefits of every choice.

Narrative on Personal Financial Literacy Scope & Sequence in Adams 12

As a district, we believe that preparing our students to be successful adults depends on a strong understanding of Personal Financial Literacy (PFL). We have been working diligently to create rigorous and relevant learning opportunities for all of our students in this realm. Two ways in which we have honored this commitment to our students and community are through the inclusion of Young Ameritowne and Finance Park in our guaranteed and viable curriculum. These programs have ensured an equitable learning experience for all of our fifth and eighth grade students in Adams 12. Over the past few years, we have been collecting data and holding conversations around how we continue to honor this commitment for our high school students before they graduate. Currently, PFL is embedded in our 9th grade Economics course. Over the past six months, a committee of teachers, administrators, students, counselors, and business leaders have hosted multiple conversations around how to create a PFL curriculum that is increasingly relevant, engaging, and equitable across our high schools. One option being considered by this committee is the recommendation of a change in our high school scope & sequence that would move this content to a higher grade level (11th grade) and focus more in depth on personal financial literacy content and concepts.

Grade Level	Standard	Unit(s)
K	Describe choices people make about how to use the money they earn	Unit 3: Economic Choices PFL Turn and Talk Video A study of ownership and the difference between wants and needs.
5	Examine the role of consumer decisions and taxes within the market economies of early American History	Unit 1: Responsible Citizenship and Financial Literacy A study of the personal responsibilities of citizens in the United States and how citizens use financial institutions to manage and develop their finances.
8	Examine the role of consumer decisions and taxes in early American history.	Unit 1: Pre-Revolution The study of English settlements in North America and the lead up to the conflict with Britain from multiple perspectives. Unit 4: Personal Financial Literacy The study of managing personal finance and how it relates to future success and quality of life.

HS	Apply consumer skills to spending, saving, and borrowing decisions	Economics Unit 1: Economic Thinking Understand how scarce resources lead to economic decision making and apply to personal financial decisions. Economics Unit 4: Personal Financial Planning Understand various savings and investment options & Understand options and impacts for borrowing
----	--	---

Kindergarten Lesson/Task Exemplar

[Video Exemplar of Lesson](#)

Learning Intention I can explain if I will save or spend money I earn.	Success Criteria I know I am successful when I can give an example of why I would save or spend my money.
--	---

Lesson 6:

Historical Background for Teacher:

Why do people save money in piggy banks? Hundreds of years ago, many household items in Europe were made of an inexpensive clay called pygg. Families would typically have a jar in their house called a “pygg bank” to put spare coins in at the end of the day. People began making them into the familiar pig shape as a play on words.

- Recreate and distribute the primary source [Saving Money](#) to partner pairs or small groups of students. Using the protocol [See, Think, Wonder](#). Have students take turns annotating the picture. For example: Student A might write: I see money or I wonder what the boy is saving for. Use the following questions to prompt thinking and discussion:
 - What is the boy doing?
 - Do you recognize what is in front of him?
 - Why would he be putting money in the piggy bank?
 - Is he spending money?
 - Is he saving money?
 - Why is saving money important?
 - What questions do you have about the picture? (Record their questions on a chart paper. You will add to this in lesson 8.
- Share key points of the historical background with students. Lead a class discussion about the importance of saving money. In partner pairs students discuss: Would they rather save their money or spend their money? Why? Record answers on a class chart. Explain that saving their money now will allow them to buy something they really need or want later.

Fifth Grade Lesson/Task Exemplar

As of the 2021-22 school year, all Adams 12 fifth grade students complete the curriculum for and attend Young Ameritowne during the first semester of the school year.

[Lesson Example](#)

Eighth Grade Lesson/Task Exemplar

All Adams 12 eighth grade students complete the curriculum for and attend Finance Park during the spring semester each year.

[JA Finance Park - Budgeting Lessons 1 & 2](#)

High School Lesson/Task Exemplar

Personal Financial Literacy is currently covered in our freshman Economics course. Some budgeting components are embedded in the first unit on Economic Thinking and taxes are embedded in the third unit entitled Role of Government. The majority of PFL standards are included in the fourth unit which is divided into three sub-units covering Saving & Investing, Borrowing, and Insurance. The lessons below are examples pulled from resources that are often used by our Economics teachers to cover budgeting with their students.

[NextGen Budgeting 101 Lesson Example](#)

[NextGen Create a Salary Based Budget](#)

[PFL Portfolio](#)

COMPLEX DEMONSTRATIONS OF LEARNING DATA REPORTED:

In the fall of 2021, each district-managed school submitted one or more examples of complex demonstrations of learning that will be occurring for every student in one or more grade levels at that school during the 2021-22 school year. Those examples can be found in **Attachment A – Complex Demonstrations of Learning for 2021-22**. Each complex demonstration of learning is aligned to multiple life skills as delineated in Board of Education Policy 1.1, including independence, self-directed learning, creativity, problem-solving, adaptability, critical thinking, perseverance, global and cultural understanding and effective communication skills.

COMPLIANCE STATEMENTS:

1. I report **compliance** for policy 1.1a for high schools on PSAT 9 and 10 and SAT in evidence-based reading and writing because achievement rates in terms of the percentage of students meeting college readiness benchmarks increased from the spring of 2018 to the spring of 2021, though it should be noted that those gains may have been influenced by the sample of students that tested.
2. I report **non-compliance** for policy 1.1a for elementary schools and middle schools on NWEA MAP in reading and math and PALS and for high schools on PSAT 9 and 10 and SAT in math as achievement rates declined from the spring of 2018 to the spring of 2021.
3. I report **compliance** for policy 1.1b, 1.1c, and Life Skills as the standards analysis data and complex demonstrations of learning data provide evidence of a rigorous, well-articulated curriculum and the opportunity to demonstrate and communicate complex reasoning and life skills at schools of all levels throughout the district.
4. I report **non-compliance** for policy 1.1d for elementary schools and middle schools overall on NWEA MAP in reading and math as well as for all disaggregated subgroups as all growth rates have declined from the spring of 2018 to the spring of 2021.

The Board acknowledged receipt of a monitoring report as of November 17, 2021, for the period July 1, 2020 through June 30, 2021, of the Superintendent concerning Board Policy 1.1 Schooling and found the superintendent's interpretations were reasonable and supported by data that are relevant, justified and complete.