TNCore

Tennessee Department of Education

Common Core Leadership Course 202

High School Class 2

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Tennessee Department of Education
Common Core Leadership Course
High School Class 2
Winter 2014

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TNCore

1 - Opening

Welcome to Common Core Leadership 202.

Our Goal in this Course:

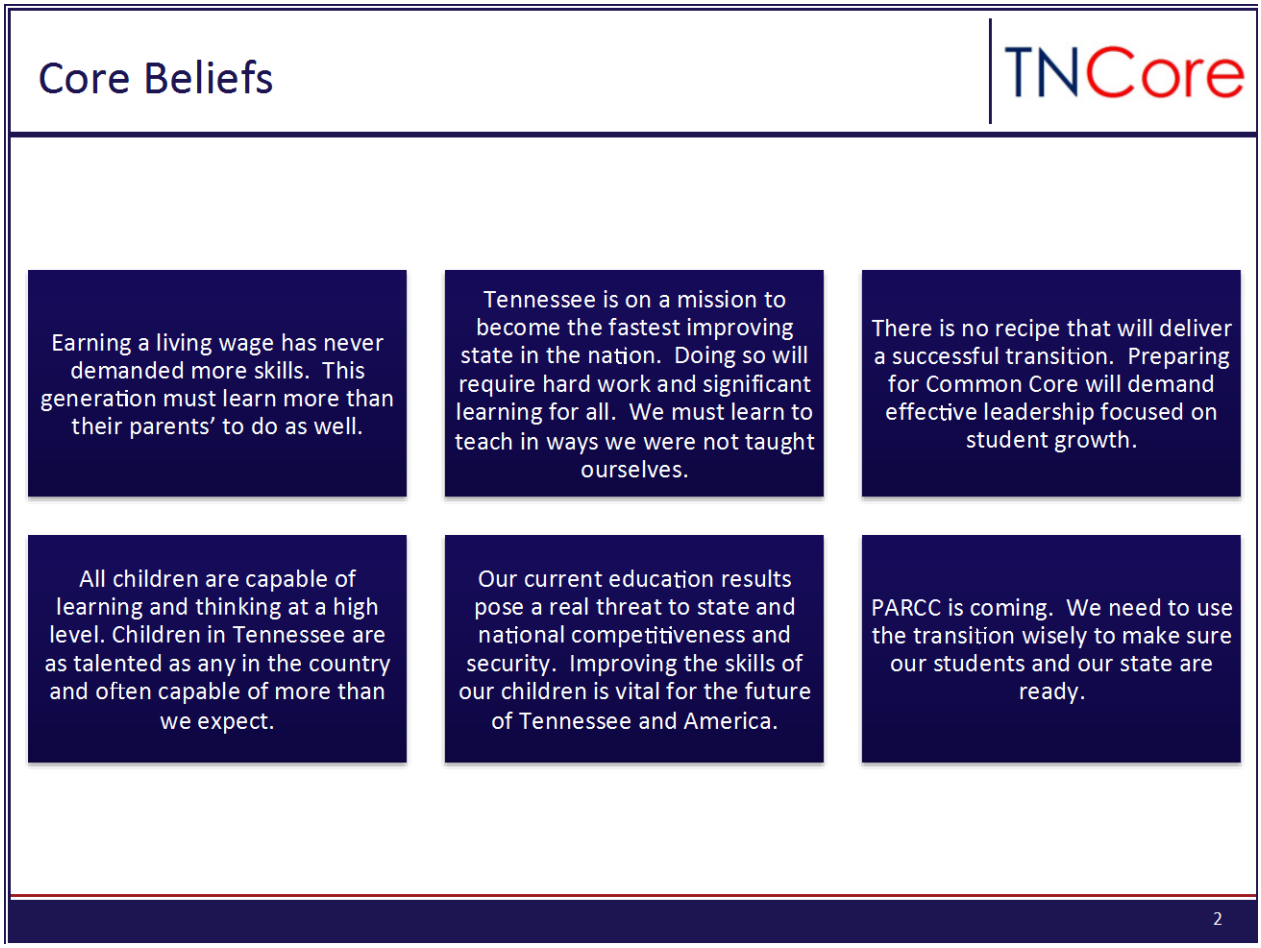
Support collaborative leadership learning focused on increasing student achievement in the transition to Common Core State Standards.

How Will We Achieve that Goal:

- Peer-Led Discussions and Collaboration
- Direct Applications to Our Classrooms and Schools
- A Focus on Student Work

Course Norms:

- Keep students at the center of focus and decision-making.
- Balance urgency and patience.
- Be solutions-oriented.
- Speak Up!
- We need collective solutions. Be present and engaged.
- Challenge with respect.
- Risk productive struggle.
- Monitor airtime and share your voice.


Core Beliefs
TNCore
Earning a living wage has never demanded more skills. This generation must learn more than their parents' to do as well.
Tennessee is on a mission to become the fastest improving state in the nation. Doing so will require hard work and significant learning for all. We must learn to teach in ways we were not taught ourselves.
There is no recipe that will deliver a successful transition. Preparing for Common Core will demand effective leadership focused on student growth.
All children are capable of learning and thinking at a high level. Children in Tennessee are as talented as any in the country and often capable of more than we expect.
Our current education results pose a real threat to state and national competitiveness and security. Improving the skills of our children is vital for the future of Tennessee and America.
PARCC is coming. We need to use the transition wisely to make sure our students and our state are ready.
2

Notes:

Directors of Schools,

I hope this finds you well. It has been a pleasure to see many of you at PARCC meetings across the state.

This email contains information about upcoming TNCore training offerings for teachers.

This summer we will be offering two types of training for teachers:

1. For the first time this summer, we will offer two "**School Team Training Series**." These training series will engage a team of "learning leaders" from each school and learning leaders will then redeliver this training to all teachers at the school.
2. We will offer **additional direct training** opportunities for teachers on new content as well as reoffering previous content.

This email includes detailed information about the School Team Training Series and preliminary information about the focus for the direct training offerings.

2014-15 School Team Training Series

This year we will offer two School Team Training Series:

- **Math PARCC Design & Key Instructional Strategies:** The focus of this training will be deepening teacher understanding of the design and expectations of PARCC math sections and developing skill supporting student success with the most challenging math content.
- **Literacy PARCC Design & Key Instructional Strategies:** The focus of this training will be deepening teacher understanding of the design and expectations of the PARCC ELA/literacy sections and developing skill supporting student success with analytic writing.

The school team training series includes summer training and training across the school year. Schools that choose to participate in either School Team Training Series will be expected to hold time during the professional development schedule for their school dedicated to redelivery to all teachers. Additional details about the school team training series specifics are available in Attachment 1 and Attachment 2.

In addition, we seek to offer a menu of direct teacher training options this summer. These offerings will be subject to demand and budget availability. We are exploring training models that will allow access for as many teachers as possible. We will have more information about the training models and specifics soon.

Additional Direct Training Options

- **Reading Intervention Training:** This would focus on reading fundamentals to support tier III instruction and intervention.
- **Math Intervention Training:** This would focus on math intervention strategies to support tier II and tier III instruction in math.
- **Reoffer math training, literacy training and reading training from last summer:** This would be a direct reoffer of previous content and be offered in July targeted for new teachers or teachers who were not able to join.
- **Social Studies Training:** This would focus on the new social studies content standards.

I realize this is an active planning time for district budgets and calendars. The attachments include specifics about the School Team Training Series and we seek to share information about the additional offerings as quickly as we can once our budget is confirmed.

In the meantime, as always, please email or call if you have any questions.

Sincerely,
Emily Barton and the TNCore Team

2014-15 School Team Training Series

This year we will offer two School Team Training Series for school choice:

- **Math PARCC Design & Key Instructional Strategies:** The focus of this training will be deepening teacher understanding of the design and expectations of PARCC math sections and developing skill supporting student success with the most challenging math content.
- **Literacy PARCC Design & Key Instructional Strategies**: The focus of this training will be deepening teacher understanding of the design and expectations of the PARCC ELA/literacy sections and developing teacher skill supporting student success with analytic writing.

How will this work?	Each school can select a team of "learning leaders." Learning leaders will be expected to attend summer training and follow up training during the school year and then redeliver the content to all teachers at the school during school level PD time. They are called "learning leaders" because they are not going to be simply sharing information but engaging in their own learning and supporting the learning of others. The learning leaders will essentially serve as core coaches for that school.
When will the training of the school team learning leaders take place?	Learning leaders will engage in a series of trainings. - 3 days in June - 1 day in late September / early October (with Friday and Saturday options) - 1 day in late January (with Friday and Saturday options) In addition to the in-person trainings, learning leaders will be expected to attend 2-3 webinar/conference calls throughout the year. The specific dates for learning leader training are included at the bottom of this document.
Where will the learning leader trainings take place?	All learning leader training (the summer and follow up components) will take place regionally, in CORE regions.
When will the trainings of teachers take place?	Learning leaders will be expected to redeliver portions of the content to all teachers in the school. **Schools that opt into this training series will be expected to hold this time for redelivery school wide:** - 1 day prior to the start of the school year - 45 minutes in September - 45 minutes in October - 3 hours in January - 45 minutes in February - 45 minutes in March The training series will be designed to provide just-in-time information about the critical aspects of PARCC and support teacher learning with bridge to practice exercises between sessions.
Where will the teacher training take place?	Learning leaders will conduct the redelivery of the training in your school directly.

How many learning leaders can we send from our school?	The Math Training Series is offered to two learning leaders in each of the following grade bands (K-2, 3-5, 6-8, 9-12). The Literacy Training Series is offered to four learning leaders in literacy in each of the following grade bands (K-2, 3-5, 6-8, 9-12.) Schools are **highly** encouraged to include science, social studies and CTE teachers as literacy learning leaders in additional to ELA teachers. One school leader per subject per school is invited (though not required) to attend learning leader training. School leaders will be expected to engage as a participant in one content room for the full training. There will not be content specifically designed for leaders. Leaders are not required to attend but they are encouraged, particularly if the leader is not currently participating in Common Core Leadership 202.
Can districts send a team to learning leader training?	The content of this training is designed for a school team to experience. However, districts will also be able to send representatives to participate in learning leader training. District representatives will need to select a grade band and subject area of focus and engage in that area throughout the course. District allocation will be based on size with more information coming on specific district teams. (Note: there will be separate district team meetings focused on PARCC offered by CORE offices in May and August with content about PARCC designed for district leaders.)
How will we register?	Schools will need to register their learning leaders in a registration system for the dates of training. Registration will launch in early April. Specific location information will be shared prior to registration.
Will we get materials?	Learning leader materials will be provided at the training. However, all additional materials for participants and redelivery will be posted online. Schools will be responsible for printing materials required for redelivery.
What is the cost?	There is no cost for learning leader training. The space, content, training and materials for learning leader training will be covered. This does not include any cost for travel or lodging.
Do school teams need to attend together?	Learning leaders from the same school are encouraged, though not required to attend together. At the least, math learning leaders should plan to attend together and literacy learning leaders should plan to attend together.
How do I select my school team?	The Common Core Leadership Council urges thoughtful care in the decision of who you select for learning leaders. Learning leaders should be: - Highly effective teachers - Excellent facilitators and communicators - Passionate about the value of high standards and rigorous assessments - Learners open to feedback and continuous improvement - Individuals others teachers will enjoy learning from One of the things consistently rated favorably in all TNCore trainings is the opportunity to learn from peers. Schools are urged to consider peer-led learning. Schools are welcome to design local interview processes to determine selection. The attached rubric (used to select core coaches) can assist school leaders in evaluating learning leader applicants.

Will there be core coaches again this year?	We will engage a small number of TNCore Coaches again this year to train the learning leaders. Core coaches will be selected first from among prior core coaches to ensure alignment of content, however, there may be limited opportunities for additional core coaches. More information about core coach options will be shared in early March.

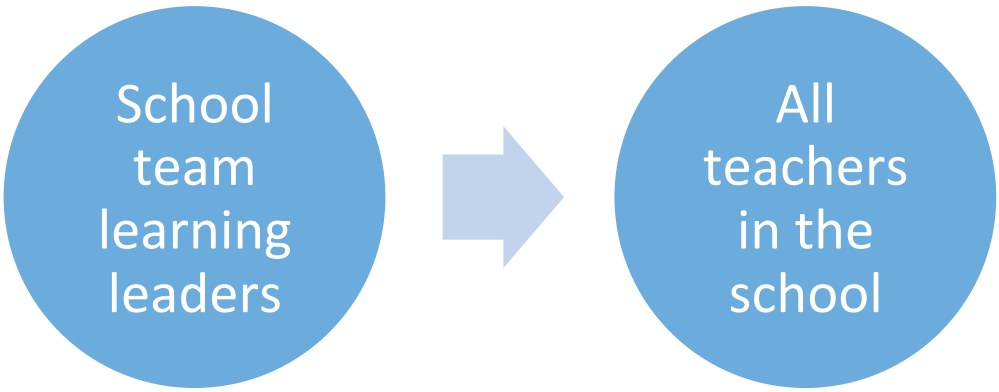
Date Options for Learning Leader Training

Training	Options
Training 1 (summer) 3 days, offered 3 times	- June 10-12 - June 17-19 - June 24-26
Training 2 (fall) 1 day, offered 3 times	- Sept. 26 - Sept. 27 - Oct. 4
Training 3 (winter) 1 day, offered 3 times	- Jan. 24 - Jan. 30 - Jan. 31
Conference Calls	- TBD (December and February)

Dates for School Training

School Training Dates	- 1 day prior to the start of the school year - 45 minutes in September - 45 minutes in October - 3 hours in January - 45 minutes in February - 45 minutes in March

School Team Training Series Model



Learning Leaders – Suggested School Team Size

Math

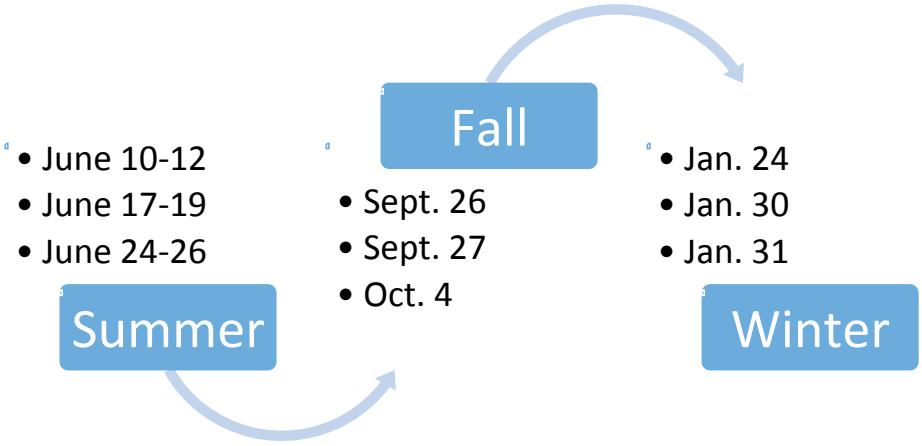
- 2 teachers per grade band
  - K-2
  - 3-5
  - 6-8
  - High School

Literacy

- 4 teachers per grade band*
  - K-2
  - 3-5
  - 6-8
  - High School

* School leaders are **strongly** encourage to include Social Studies, Science and CTE teachers as literacy learning leaders

Learning Leader Training Options



Redelivery

(Schools would need to hold this time for redelivery)

Summer	• 6 hours (Before School Starts)
Fall	• 45 minutes (September) • 45 minutes (October)
Winter	• 3 hours (January) • 45 minutes (February)
Spring	• 45 minutes (March)

Learning Leaders Should Be

- Highly effective teachers
- Excellent facilitators and communicators
- Passionate about the importance of high standards and rigorous assessments
- Learners: open to feedback and continuous improvement

Learning Leader Rubric (based on TNCore Coach Interview Rubric)

	3	2	1	Notes
Effective educators	Individual TVAAS Level 5 (3 year or most appropriate) in this subject **-or-** Evidence of **dramatic** student growth (2 grade levels of gains +)	Individual TVAAS Level 3 or 4 (3 year or most appropriate) in this subject **-or-** Evidence of **strong** student growth (1.5-2 grade levels of gains)	Individual TVAAS Level 1 or 2 (3 year or most appropriate) in this subject **-or-** Evidence **of less than expected** student growth (.75-1 grade levels of gains)	
Excellent facilitators and communicators	Establishes powerful, inspiring connection with participants Excellent presenter and clear communicator Effectively and thoughtfully responds to challenging situations and questions In your gut, you know this person will be well respected by their peers	Solid presenter and clear communicator Uses clear reason and logic to connect with interviewers and respond to role play Establishes good, meaningful connection Comfortably responds to challenging situations and questions In your gut, you know this person will be well respected by their peers	Concerns about communication Difficult to communicate with in person, difficult to understand In your gut, you know this person would not be taken seriously by peers. Weak or inconsistent presence	

Passionate about the importance of rigorous standards and assessments	Evidence of strong support for change that may be difficult for adults but good for kids Insightful about ways in which rigorous standards and assessments will make a dramatic, positive difference for students lives and Tennessee's future Expresses belief that all students can be successful, relentlessly focused on student learning	No evidence of concerns about fit or beliefs about importance of reform Clear communication of enthusiasm for rigorous standards and assessments and able to articulate specific ways implementation will benefit students Focused on student learning	Evidence of reservation about change, even when it helps students Expresses negative comments about the value of rigorous standards and assessments Not directly focused on student learning	
Learners: open to feedback and continuous improvement	Receives feedback in a positive and professional manner Strong evidence that this candidate continuously and independently reflects on his or her students' academic achievement Changes in his or her instruction drastically and positively impact student academic achievement	Receives feedback in a positive and professional manner Strong evidence that this candidate makes changes in their instruction that directly impact student academic achievement	Receives feedback in an negative or unprofessional manner Reflection is limited and/or unrelated to substantial changes in student gains.	

2 - Literacy

Promoting Student Growth and Common Core Writing

Tennessee Department of Education
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Literacy Table of Contents

Course Goals/Objectives

1) Further develop our understanding of the expectations of the standards and PARCC in literacy. Examine student work for strengths and areas for growth.

2) Examine the role of revision, editing, proofreading and feedback in improving student writing.

3) Develop a plan of action to help all students meet expectation by class 3.

4) Step back and consider the implications of our work thus far on local planning for the coming year. Understand the available resources to support instructional planning in the coming year.

TCAP/WA Informational/Explanatory Rubric – Grades 9-12

Revised: April 2013

Score	Development	Focus & Organization	Language	Conventions
4	In response to the task and the stimuli, the writing: • utilizes well-chosen, relevant, and sufficient evidence[1] from the stimuli to thoroughly and insightfully develop the topic. • thoroughly and accurately explains and elaborates on the evidence provided, demonstrating a clear, insightful understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains an effective and relevant introduction. • utilizes effective organizational strategies to create a unified whole and to aid in comprehension. • effectively clarifies relationships among ideas and concepts to create cohesion. • contains an effective and relevant concluding statement or section.	The writing: • illustrates consistent and sophisticated command of precise language, domain-specific vocabulary, and literary techniques[2] appropriate to the task. • illustrates sophisticated command of syntactic variety for meaning and reader interest. • utilizes sophisticated and varied transitional words and phrases. • effectively establishes and maintains a formal style and an objective tone.	The writing: • demonstrates consistent and sophisticated command of grade-level conventions of standard written English.[3] • may contain a few minor errors that do not interfere with meaning.
3	In response to the task and the stimuli, the writing: • utilizes relevant and sufficient evidence[1] from the stimuli to adequately develop the topic. • adequately and accurately explains and elaborates on the evidence provided, demonstrating a sufficient understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains a relevant introduction. • utilizes adequate organizational strategies to create a mostly unified whole and to aid in comprehension. • clarifies most relationships among ideas and concepts, but there may be some gaps in cohesion. • contains a relevant concluding statement or section.	The writing: • illustrates consistent command of precise language, domain-specific vocabulary, and literary techniques[2] appropriate to the task. • illustrates consistent command of syntactic variety for meaning and reader interest. • utilizes appropriate and varied transitional words and phrases. • establishes and maintains a formal style and an objective tone.	The writing: • demonstrates consistent command of grade-level conventions of standard written English.[3] • contains some minor and/or major errors, but the errors do not significantly interfere with meaning.
2	In response to the task and the stimuli, the writing: • utilizes mostly relevant but insufficient evidence[1] from the stimuli to partially develop the topic. Some evidence may be inaccurate or repetitive. • explains some of the evidence provided, demonstrating only a partial understanding of the topic and the stimuli. There may be some level of inaccuracy in the explanation.	In response to the task and the stimuli, the writing: • contains a limited introduction. • demonstrates an attempt to use organizational strategies to create some unification, but ideas may be hard to follow at times. • clarifies some relationships among ideas and concepts, but there are lapses in focus. • contains a limited concluding statement or section.	The writing: • illustrates inconsistent command of precise language, domain-specific vocabulary, and literary techniques.[2] • illustrates inconsistent command of syntactic variety. • utilizes basic or repetitive transitional words and phrases. • establishes but inconsistently maintains a formal style and an objective tone.	The writing: • demonstrates inconsistent command of grade-level conventions of standard written English.[3] • contains many errors that may significantly interfere with meaning.
1	In response to the task and the stimuli, the writing: • utilizes mostly irrelevant or no evidence[1] from the stimuli, or mostly/only personal knowledge, to inadequately develop the topic. Evidence is inaccurate or repetitive. • inadequately or inaccurately explains the evidence provided, demonstrating little understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains no or an irrelevant introduction. • demonstrates an unclear organizational structure; ideas are hard to follow most of the time. • fails to clarify relationships among ideas and concepts; concepts are unclear and/or there is a lack of focus. • contains no or an irrelevant concluding statement or section.	The writing: • illustrates little to no use of precise language, domain-specific vocabulary, and literary techniques.[2] • illustrates little to no syntactic variety. • utilizes no or few transitional words and phrases. • does not establish or maintain a formal style and an objective tone.	The writing: • demonstrates limited command of grade-level conventions of standard written English.[3] • contains numerous and repeated errors that seriously impede meaning.

[1] Evidence includes facts, extended definitions, concrete details, quotations, or other information and examples as appropriate to the task and the stimuli.
[2] Literary techniques are only expected at grades 11-12.
[3] Conventions of standard written English include sentence structure, grammar, usage, spelling, capitalization, and punctuation.

Research Overview —Writing-to-Sources

Key Steps

1. **Prepare**:

   a.) Analyze the prompt to pose or clarify a question about text(s)
   b.) Gather and analyze textual evidence
   c.) Create a thesis. Test it: does it answer the question? Is it supported by evidence?
   d.) Create an outline

2. **Draft:** Put your ideas into sentences and paragraphs. Explain and support your ideas.

3. **Revise**: Consider your reader's needs and expectations. Have you successfully communicated/argued your point?

4. **Edit**: Correct errors in conventions; ensure correct citation

5. **Publish**

Based on http://writing.mit.edu/wcc/resources/writers/writingprocess

GRADES 11–12
ITEM 2
FOCUS & ORGANIZATION ANCHOR

Score:	Focus & Organization
4	In response to the task and the stimuli, the writing: • contains an effective and relevant introduction. • utilizes effective organizational strategies to create a unified whole and to aid in comprehension. • effectively clarifies relationships among ideas and concepts to create cohesion. • contains an effective and relevant concluding statement or section.
3	In response to the task and the stimuli, the writing: • contains a relevant introduction. • utilizes adequate organizational strategies to create a mostly unified whole and to aid in comprehension. • clarifies most relationships among ideas and concepts, but there may be some gaps in cohesion. • contains a relevant concluding statement or section.
2	In response to the task and the stimuli, the writing: • contains a limited introduction. • demonstrates an attempt to use organizational strategies to create some unification, but ideas may be hard to follow at times. • clarifies some relationships among ideas and concepts, but there are lapses in focus. • contains a limited concluding statement or section.
1	In response to the task and the stimuli, the writing: • contains no or an irrelevant introduction. • demonstrates an unclear organizational structure; ideas are hard to follow most of the time. • fails to clarify relationships among ideas and concepts; concepts are unclear and/or there is a lack of focus. • contains no or an irrelevant concluding statement or section.

EXPLANATION OF FOCUS & ORGANIZATION RUBRIC TERMS

"In response to the task and stimuli"

- **As you assess focus and organization in a student's response, remember that you are scoring based upon how the student focuses on the task and organizes in response to the task and the stimuli. If a response does not address the task, organization would be considered irrelevant due to a lack of focus on the task.**

"organizational strategies"

- **Organizational strategies are techniques the student utilizes throughout in order to create a unified response and order information appropriately. These strategies can include the use of paragraphs to group related information, use of transitional words and phrases to connect ideas, and the use of comparison and contrast.**

"unified whole"

- **A successful response should demonstrate the ability to remain focused throughout and should be organized appropriately to help the reader clearly understand the student's ideas.**

"relationships among ideas and concepts"

- **It is the responsibility of the student to explain how ideas and concepts are related throughout his or her response. If ideas and concepts are disconnected, the score will be affected.**

"focus"

- **Focus refers to the student's ability to remain on-task. The student's ideas and concepts should always be connected to the task and stimuli and the student's central idea, thesis, or claim. If they are not, the response becomes irrelevant to the given task.**

"concluding statement or section"

- **The concluding statement or section refers to the conclusion. The relevance of a student's conclusion depends upon his or her ability to appropriately bring ideas to a close and his or her ability to relate closing statements to the overall focus of the response.**

You will now review 8 individual student responses, scored only in Focus & Organization, along with annotations to help you internalize the use of the rubric for this trait.

Focus & Organization Anchor: Response #1

In this passage, intelligence is seen and expressed in a different light. It isn't about how smart a person is, it's the environment that they are placed in. If a person is put under stereotypical pressure, they will be more likely to do worse than if they thought they were being measured by intelligence. It should be more focused on the student being in the right environment and making sure that they are comfortable

SCORE POINT: 1

Focus & Organization Anchor: Response #1

Annotations
SCORE POINT: 1

In response to the task and the stimuli:

- **The student provides no introduction. Rather, the response launches directly into a discussion of intelligence being "*seen and expressed in a different light.*"**
- **The student demonstrates an unclear organizational structure; ideas are hard to follow most of the time. The response consists of one single paragraph with no explicit or implied objective, creating an overall lack of unification The student only discusses the second text, with no comparisons to the first text.**
- **The student fails to clarify relationships among ideas and concepts; concepts are unclear, and there is a lack of focus. All concepts and ideas are left disconnected.**
- **The student provides no concluding statement or section. There is no sense of closure as the response abruptly ends.**

Focus & Organization Anchor: Response #2

Both texts provide insight on how they view intelligence. One talks about mind sets developed in the early stages of school and the other speaks about how social factors affect your ability to score well and learn.

In the first text, it talks about mine-sets and how they affect how you lean and progress throughout school. They are usually developed at an early age and during the first few years of school. The "Fixed mind-set" and the "Growth mind-set". Fixed is the worst of the mind-sets it leaves no room for improvement since it is "Fixd arinert". The growth mind-set is far superior you improve throughout school and life because you're always improving and challaging yourself.

In the Second text, it talks about Social factors and how they affect your tests. A multitude of factors is in this; race, gender, wether or not you live in a bad neighborhood, Part of a minority or gang. They all affect you when brought up but if left silent hopefully doesnt affect you.

SCORE POINT: 1

Focus & Organization Anchor: Response #2

Annotations
SCORE POINT: 1

In response to the task and the stimuli:

- **The student provides a limited introduction:**
  - *Both texts provide insight on how they view intelligence. One talks about mind sets developed in the early stages of school and the other speaks about how social factors affect your ability to score well and learn.*

  Though the introduction is limited, the focus and overall organizational structure are both unclear.

- **The student demonstrates an unclear organizational structure; ideas are hard to follow most of the time. After the introduction, there is a brief paragraph about "*the first text*" (Dweck), followed by a brief paragraph about "*the second text*" (Paul). These paragraphs are nothing more than minimal summaries of the text. There is no attempt to relate them to intelligence.**

- **The student fails to clarify relationships among ideas and concepts; concepts are unclear and/or there is a lack of focus. For example:**
  - *Fixed is the worst of the mind-sets it leaves no room for improvement since it is "Fixd arinert". The growth mind-set is far superior you improve throughout school and life because you're always improving and challaging yourself.*

  While these statements are focused, the lack of relationship to the text makes concepts unclear, and the student's ideas are vague, lacking further clarification.

- **The student provides no concluding statement or section. There is no closure, as the response ends abruptly.**

Focus & Organization Anchor: Response #3

"The Secret to Raising Smart Kids" by Carol S Dweck and "It's Not Me, It's You" by Annie Murphy Paul both talk about intelligence levels. They both write about what it means to be intelligent. Dweck and Paul both have strong opinions about intelligence levels. They display these opinions throughout their articles.

Dweck, author of "The Secret to Raising Smart Kids" article, believes that intelligence is based on how well someone does on a test or assignment. She believes that if someone does bad on a test is not as intelligent as someone who does good on the test. People who make good grades are very intelligent people, in Dweck's eyes. People who make poor grades are less intelligent, in her opinion.

Paul, author of "It's Not Me, It's You" article, believes intelligence is based on your place in society. She thinks that if one grew up in a bad environment they will not do as good on tests or assignments. Paul also believes that a persons intelligence level is based upon their race or gender in some cases. She did an experiment where females did worse on a test when they were reminded of their gender. The experiment also showed that African Americans did worse on the test when they were reminded of their race.

Both authors have very different opinions on a persons intelligence level. Who are we to judge who is right and who is wrong? They both have a strong opinion and articles and experiments to back them up.

SCORE POINT: 2

Annotations
SCORE POINT: 2

In response to the task and the stimuli:

- **The student provides a limited introduction:**
  - *"The Secret to Raising Smart Kids" by Carol S Dweck and "It's Not Me, It's You" by Annie Murphy Paul both talk about intelligence levels. They both write about what it means to be intelligent. Dweck and Paul both have strong opinions about intelligence levels. They display these opinions throughout their articles.*

  The student establishes the topic of intelligence, with the focus that the authors "*have strong opinions about intelligence levels.*" However, the introduction remains limited, in part because of its brevity and the generality of the focus.

- **The student demonstrates an attempt to use organizational strategies to create some unification. However, ideas are hard to follow at times. Because there is very little comparison and contrast between the two texts, there is a lack of unification.**

- **The student clarifies some relationships among ideas and concepts. For example:**
  - *Paul also believes that a persons intelligence level is based upon their race or gender in some cases. She did an experiment where females did worse on a test when they were reminded of their gender. The experiment also showed that African Americans did worse on the test when they were reminded of their race.*

- **The student provides a limited concluding statement or section:**
  - *Both authors have very different opinions on a persons intelligence level. Who are we to judge who is right and who is wrong? They both have a strong opinion and articles and experiments to back them up.*

  The conclusion lacks some relevance and remains brief and general.

Focus & Organization Anchor: Response #4

Dweck and Paul both describe intelligence as something fragile and easily manipulated. It seems as if these to articles were written based on a common thought.

Paul talks about students who regularly perform well in school, but something affecting them causes an abnormal test result. Paul gives many examples such as: race, gender fear, etc. She also mentions the small things that cause a lot of learning and test taking problems are based on home environment in particular.

While Annie Murphy Paul's article is primarily covering test taking skills, Carol S. Dweck's article concerns learning mind-sets. In Dweck's article, the antagonist and the protagonist are one in the same. Paul's article speaks of an actual person or situation causing problems.

Proffessor Aronson was mentioned into Annie Paul's article. "Aronson calls the doltishness induced by an uncomfortable social situation "'conditional stupidity.'" We should use that insight to create the conditions for brilliance." In this quote from Paul's article, she suggests we re-manipulate the conditions upon which people become brilliant or announce others as brilliant.

Paul's statement seems to develop into Dweck's, "

SCORE POINT: 2

Annotations
SCORE POINT: 2

In response to the task and the stimuli:

- **The student provides a limited introduction:**
  - *Dweck and Paul both describe intelligence as something fragile and easily manipulated. It seems as if these to articles were written based on a common thought.*

  This introductory statement establishes that the topic is intelligence.

- **The student demonstrates an attempt to use organizational strategies to create some unification, but ideas are hard to follow at times. For example:**
  - *In Dweck's article, the antagonist and the protagonist are one in the same. Paul's article speaks of an actual person or situation causing problems.*

  The intended meaning of the first sentence above is unclear. The sentence that follows has no apparent connection, hinting at a lack of overall unification. Ideas remain disconnected.

- **The student clarifies some relationships among ideas and concepts, but there are lapses in focus. For example:**
  - *Paul gives many examples such as: race, gender fear, etc. She also mentions the small things that cause a lot of learning and test taking problems are based on home environment in particular.*

  The lack of focus on ideas or concepts weakens clarification of relationships.

- **The student provides no concluding statement or section. An abrupt ending occurs mid-sentence.**

Focus & Organization Anchor: Response #5

Both articles have similar and differing definitions of intelligence. These definitions coincide with each other in such a way that they simultaneously tear each other down whilst also building each other up. One major factor in the comparativeness in these studies could be that they both originate in the same time period, thus answers should not have deviated much from the social norm. Through looking deeper into Paul and Dweck's different interpretations on iteligence and their comparison, it should become obvious what the true definition is.

Paul noted highly that when it comes to intelligence, it seems to be more about others than the person themself. She stated that a professer studying this called this phenomena "conditional stupidity". Throughout multiple tests, professers Claude Steele and psychologist Joshua Aronson, the one who coined the term 'conditional stupidity', noticed that when reminded of another group or individual's records or acheivements, one will try to either beat or maintain that goal. When they did a study with drivers by telling all of the participants that males are better drivers, women struggled to beat the stereotype while the men struggled to rise up to it. This struggle can be noticed between gender, race, and a number of other things.

Dweck's findings showed that intelligence stems from the mindset of a person. Individuals that have been raised on the praise of their hardwork appear to be more 'intelligent' than those praised for pure talent. Those that were raised on talent praise developed a fixed-mindset which means that when posed a challenge, the student would shy away due to the fact that they may fail and not be as smart as they originally expected. The other group who were raised on the praise of hard work and effort tended to be more inclined to accept the challenges, and even though they may not have been 'smart' enough to overcome them, they were determined to become 'smart' enough.

These theories have places where they overlap and places where they diverge. In comparison, Dweck and Paul both see intelligence as something internal and changeable, though where this stems from they disagree on. Paul thinks that intelligence comes from the thoughts and stereotypes of others, and while Dweck agrees that other individuals have their part in it, Dweck thinks that it comes from how one percieves themself. Are either of them wrong? Certainly not. Are either of them right? Well, we might never truly know.

SCORE POINT: 2

Annotations
SCORE POINT: 2

In response to the task and the stimuli:

- **The student provides a limited introduction:**
  - *Both articles have similar and differing definitions of intelligence. These definitions coincide with each other in such a way that they simultaneously tear each other down whilst also building each other up. One major factor in the comparativeness in these studies could be that they both originate in the same time period, thus answers should not have deviated much from the social norm. Through looking deeper into Paul and Dweck's different interpretations on iteligence and their comparison, it should become obvious what the true definition is.*

  The student introduces the topic of intelligence, then includes irrelevant ideas (underlined above), demonstrating a limited introduction and an inappropriate focus.

- **The student demonstrates an attempt to use organizational strategies. Through the use of paragraphs and the attempt to compare and contrast, the student creates some unification. Though the ideas are not hard to follow, the student has not created an adequately unified whole.**

- **The student clarifies some relationships among ideas and concepts, but there are lapses in focus. For example:**
  - *"When they did a study with drivers by telling all of the participants that males are better drivers, women struggled to beat the stereotype while the men struggled to rise up to it."*

  The intent of this example idea is not clear. More explanation of how it relates to "conditional stupidity" is necessary.

Continued on the next page . . .

- **The student provides a limited concluding section:**

  - *"Paul thinks that intelligence comes from the thoughts and stereotypes of others, and while Dweck agrees that other individuals have their part in it, Dweck thinks that it comes from how one percieves themself. Are either of them wrong? Certainly not. Are either of them right? Well, we might never truly know."*

  The rhetorical questions that end the response have no connection to the student's preceding ideas.

Focus & Organization Anchor: Response #6

Throughout both articles, it is expressed that intelligence was of mind-set rather than a code embedded in our DNA structure. How people look at their learning skills has a lot to do with how intelligent they appear to others or even how intelligent they appear to themselves. With regards to Dweck's article, there are two different classifying attributes to a student's performance: growth mind-set and fixed mind-set. On the other hand, Paul's article represents that a student's social and environmental surroundings heavily influenced their ability and performance on a test. Considerably, studies done by Paul and Dweck had underlying features that hold true for certain circumstances. Paul focuses on the circumstances of a student's current social situation while Dweck is more concerned with the circumstances in which a student is praised.

Within Dweck's findings, she centralized the student's efforts over their ability and examined how mistakes and praise could hold an astonishing impact on a student's self-confidence. This is shown when she says, "I developed a broader theory of what separates the two general classes of learners – helpless versus mastery-oriented (line 75, A1)." So, the helpless ones have a fixed mind-set and the mastery-oriented ones have a growth mind-set. She goes on to say, "helpless ones believe that intelligence is a fixed trait: you have only a certain amount, and that's that (lines 77-79, A1)." The opposite side which is growth mind-set has children who, "think intelligence is malleable and can be developed through education and hard work (lines 84-85, A1)." Clearly, Dweck is saying that kids with a growth mind-set have more of a chance to be successful than kids with a fixed mind-set.

However, Paul's research concluded the social surroundings played a part in students' abilities to achieve higher scores than their counterparts. Paul says, "It's just one example of the powerful influence that social factors can have on intelligence (line 7-8, A2)." His studies show that stereotypes influenced students to question or doubt their abilities when he said, "The evolving literature on stereotype threat shows that performance is always social in nature (lines 41-42, A2)." He theorizes that, "We should put in place techniques for minimizing stress and anxiety as well a building self-confidence (lines 66-67, A2)." If children feel uncomfortable for any reason, their intelligence will come out lower than if they were feeling relaxed.

Within the contents of both articles, we see a similarity in how both articles emphasize and stress the importance of education and how we percieve the options for learning. Intelligence itself doesn't actually come from being praised or being stereotyped. It comes from how we choose to address more demanding assignments and duties. Will we "avoid challenges because challenges make mistakes more likely (line 81,

A1)?" Will we "feel hopelessly unintelligent and inarticulate in the presence of another (line 2, A2)?" After reading these articles, I hope my answer and yours will be "no". That is the lesson to be learned after reading these two articles about intelligence.

SCORE POINT: 3

Annotations
SCORE POINT: 3

In response to the task and the stimuli:

- **The student provides a relevant introduction:**
  - *Throughout both articles, it is expressed that intelligence was of mind-set rather than a code embedded in our DNA structure. How people look at their learning skills has a lot to do with how intelligent they appear to others or even how intelligent they appear to themselves. With regards to Dweck's article, there are two different classifying attributes to a student's performance: growth mind-set and fixed mind-set. On the other hand, Paul's article represents that a student's social and environmental surroundings heavily influenced their ability and performance on a test.*

  The meaning of the word *intelligence* is initially offered as the focus of the response.

- **The student utilizes adequate organizational strategies to create a mostly unified whole and to aid in overall comprehension. The uses of transitions and paragraphing to order information are adequate. The organizational structure is clear and consistent.**

- **The student clarifies most relationships among ideas and concepts. For example:**
  - *His studies show that stereotypes influenced students to question or doubt their abilities when he said, "The evolving literature on stereotype threat shows that performance is always social in nature (lines 41-42, A2)." He theorizes that, "We should put in place techniques for minimizing stress and anxiety as well a building self-confidence (lines 66-67, A2)." If children feel uncomfortable for any reason, their intelligence will come out lower than if they were feeling relaxed.*

  Although there are no gaps in cohesion, the relationship between ideas needs more clarification to aid in understanding.

Continued on the next page . . .

- **The student provides a relevant concluding section:**

  - *Within the contents of both articles, we see a similarity in how both articles emphasize and stress the importance of education and how we percieve the options for learning. Intelligence itself doesn't actually come from being praised or being stereotyped. It comes from how we choose to address more demanding assignments and duties. Will we "avoid challenges because challenges make mistakes more likely (line 81, A1)?" Will we "feel hopelessly unintelligent and inarticulate in the presence of another (line 2, A2)?" After reading these articles, I hope my answer and yours will be "no". That is the lesson to be learned after reading these two articles about intelligence.*

  The concluding section wraps up the discussion that precedes it. It represents a summation of the ideas and concepts already explored. The use of rhetorical questions, with an answer, is somewhat effective.

It's Not Me, It's You vs. The Secret to Raising Smart Kids

The word intelligence can have many meanings to many different people. Carol S. Dweck and Annie Murphy Paul each have their own opinions about the meaning of the word. The meanings of intelligence that they explore have to do with different backgrounds. In the article "The Secret to Raising Smart Kids," Dweck explains that intelligence can either be developed (growth mind-set) or it can be limited (fixed mind-set). These mind-sets are the result of how/why a child is praised, for talent (fixed) or effort (growth). In the article "It's Not Me, It's You," Paul explains that intelligence depends on who you are with. If you're at ease around a familiar group of people, you'll be perceived as more intelligent, while you'll seem less smart if surrounded by strangers. Professor Aronson backs up Paul's view on the subject, calling it "conditional stupidity." Their ideas about intelligence might be different, but they have a common objective which is to reduce constraints people impose on the intelligence of others as well as themselves.

It should be easy to show the differences in the authors' views of intelligence. Paul believes that your intelligence temporarily decreases in uncomfortable situations, whereas Dweck believes that, when faced in an uncomfortable situation, the intelligence is based on the individual's mindset. While both authors agree that how comfortable someone might feel at any time can bring down someone's intelligence, they disagree on the source of anxiety. Paul expands on this point saying, "you feel especially smart and funny when talking to a particular person, only to feel hopelessly unintelligent and inarticulate in the presence of another." So a person's comfort level in their situation matters in terms of how smart they look or act. Dweck emphasizes a different aspect of a person's comfort level. She says that, "Some students reacted defensively to mistakes […] and their problem-solving strategies deteriorated." Dweck is talking about the children with a fixed mind-set who became uncomfortable after having trouble with something.

There are some similarities between the two authors' views on intelligence. Both writers agree that intelligence is managed by outside sources. For Dweck, it's how you are praised. Dweck supports this idea, claiming that "Although many parents believe that they should build up a child by telling him or her how brilliant and talented he or she is, our research suggests that this is misguided." Instead, she says that "teaching people to have a "growth mind-set," which encourages a focus on effort rather than on intelligence or talent, helps make them into high achievers in school and in life." Dweck believes that it's how you are praised and how you are taught to think that affects performance. Parents usually think that praising their children is harmless, but Dweck has shown that there can

be serious consequences if praise is given in the wrong context. For Paul, it's what someone says to you before performance. Paul believes that if you are faced with a "stereotype threat" then you are less likely to achieve as much as you could if you had not been faced with said "stereotype threat." Stereotype threat means that, "the prospect of social evaluation suppressed these students' intelligence." Sometimes thinking about how others might appraise your intelligence can have a negative impact on achievement, as proven by the statement "Black students scored much lower when they were instructed that the test was meant to measure their intellectual ability."

The commonground these writers share, maybe the most important message of these articles, is that these "temporarily stupid" situations can be avoided. For Dweck, you simply praise hard work instead of how smart someone is. For Paul, refraining from expressing a stereotype threat will keep students from worrying about falling into a certain stereotype that is bound to, stereotypically, not do so well. The main thing is that students, and people in general, can accomplish more if they aren't weighed down by negative prejudices about intelligence. At the end of the day, both authors have the same goal; to give children the best possible chance to succeed in school and in life.

Annotations
SCORE POINT: 3

In response to the task and the stimuli:

- **The student provides a relevant introduction:**
  - *The word intelligence can have many meanings to many different people. Carol S. Dweck and Annie Murphy Paul each have their own opinions about the meaning of the word. The meanings of intelligence that they explore have to do with different backgrounds. In the article "The Secret to Raising Smart Kids," Dweck explains that intelligence can either be developed (growth mind-set) or it can be limited (fixed mind-set). These mind-sets are the result of how/why a child is praised, for talent (fixed) or effort (growth). In the article "It's Not Me, It's You," Paul explains that intelligence depends on who you are with.*

  The meaning of the word *intelligence* is initially offered as the focus of the response.

- **The student utilizes adequate organizational strategies to create a mostly unified whole. The student's ability to discuss both authors simultaneously within each paragraph is a strength of the response that aids in overall comprehension.**

- **The student clarifies most relationships among ideas and concepts. There are few gaps in cohesion.**

Continued on the next page . . .

Focus & Organization Anchor: Response #7

The student provides a relevant concluding section:

- *The commonground these writers share, maybe the most important message of these articles, is that these "temporarily stupid" situations can be avoided. For Dweck, you simply praise hard work instead of how smart someone is. For Paul, refraining from expressing a stereotype threat will keep students from worrying about falling into a certain stereotype that is bound to, stereotypically, not do so well. The main thing is that students, and people in general, can accomplish more if they aren't weighed down by negative prejudices about intelligence. At the end of the day, both authors have the same goal; to give children the best possible chance to succeed in school and in life.*

The concluding section wraps up the discussion that precedes it. It represents a summation of the ideas and concepts already explored. The student adequately links the two texts in the final statement.

Focus & Organization Anchor: Response #8

Intelligence can be interpreted in many different ways. Can intelligence, as an intangible and somewhat abstract concept, be accurately measured and quantified? Is intelligence more than just the sum of one's knowledge and experience? There are different meanings of the term, and that is shown when comparing the writings of Carol S. Dweck and Annie Murphy Paul, two scholars with very distinct outlooks on the subject of intelligence. While Dweck believes that intelligence is dependent upon what mindset a student has, Paul believes that intelligence is dependent upon the situation a person may be in.

Dweck believed that intelligence is dependent on the student's mind-set. She believed that if a student has a growth mind-set, he/she will be more open to challenges, unlike those with a fixed mind-set. The student's mind-set is usually determined by why the child is specifically praised after doing well. If praised for "being very smart," the child will likely develop a fixed mind-set, described by Dweck as "an implicit belief that intelligence is innate and fixed." This view can have bad effects when the child actually faces a challenge, as he/she will perceive the need to put in effort as an indication of weakness and a "threat to their ego." These children have excelled effortlessly, academically speaking, all their lives; while the reason this is no longer the case remains a mystery to them, the newfound fear of failure is very real. Dweck supports this assertion with data from a 1970s study she performed. Referring to children with a fixed mind-set, she states, "Some students reacted defensively to mistakes, denigrating their skills […], and their problem-solving strategies deteriorated." These children view the challenge not as an opportunity to improve but rather as proof that they are not actually as smart as they originally thought. Additionally, since such children view their intelligence as a permanent trait which can't be improved, their struggling to complete difficult tasks will discourage them from even approaching tasks that could potentially be construed as too challenging. These challenges are unwelcome and unfamiliar risks that should be avoided in order to maintain their designation as gifted and smart. On the flipside, if a child is praised for putting forth a good amount of effort, he/she will probably end up with a growth mind-set. In regards to children with a growth mind-set in the same study, Dweck says, "Others, meanwhile, focused on fixing errors and honing their skills." The result, success or failure, is less important to a child with a growth mind-set; he/she will see his/her achievement as the result of how hard he/she tried, possibly showing the need to try harder. The fundamental difference between the two mind-sets lies in how an individual deals with a problem he/she cannot currently solve. Do they throw in the towel and give up or press on without fear in the face of adversity?

Paul, however, says that students who are members of a group that is stereotyped as second-rate will have a harder time on tests when reminded of that fact. For example, "Black students scored much lower when they were instructed that the test was meant to measure their intellectual ability." Mentioning that the test was meant to measure intellectual ability, Paul claims, carries with it a negative connotation based in the stereotype that black students have less intellectual ability than whites. She goes on to say that, "experiments in the 1990s, and the dozens of studies by other researchers that followed, concluded that the performance of these students suffered because they were worried about confirming negative stereotypes about their group." This shows that students stereotyped, or those that are worried about this do worse, which is what Paul wanted to prove. Paul reinforces this point with the statement, "Members of groups believed to be academically inferior – African-American and Latino students enrolled in college, or female students in math and science courses – score much lower on tests when reminded beforehand of their race or gender." Paul isn't trying to say that these groups are actually less intelligent, but rather that they are susceptible to what Professor Joshua Aronson calls "stereotype threat." Paul is saying that the social conditions in which intelligence are measured can affect a student's academic performance in a detrimental way. The environment that kids are tested in should be comfortable and unbiased. It should be a judgment-free zone without prejudice, real or implied, to prevent what Aronson refers to as "conditional stupidity."

In spite of their somewhat divergent ideas on the subject of intelligence, it is important to point out that there is some overlap between the two articles. Both of them agree that intelligence is rooted in a person's self-confidence, to some degree. Dweck expands on this by saying "Although all the students cared about grades, the ones who earned the best grades were those who placed a high premium on learning rather than on showing that they were smart in chemistry." Paul agrees, saying, "when people report feeling comfortable with a conversational partner, they are judged as being more witty." They think external factors have a significant impact on how well any individual might do on any particular task or assessment. People can, in essence, allow themselves to be affected by outside influences and then underperform.

Overall, the two writers have very different views on what intelligence is, and how it is achieved. While Dweck thinks that a child's mind-set, fixed or growth, has a big impact on how he/she approaches the trials of life, Paul looks at intelligence more as a fluid concept affected by external factors. They differ with respect to the factors that determine an individual's self-confidence in his/her own intelligence, Dweck focusing on

praise and the reason it's given while Paul is more concerned with the detrimental effects of social stigmas and stereotypes. Regardless, one truth that can be gleaned from both articles would be that children and adults need to view intelligence as a goal that they have the power to achieve instead of a predetermined value that they can't control or change.

SCORE POINT: 4

Annotations
SCORE POINT: 4

In response to the task and the stimuli:

- **The student provides an effective and relevant introduction:**
  - *Intelligence can be interpreted in many different ways. Can intelligence, as an intangible and somewhat abstract concept, be accurately measured and quantified? Is intelligence more than just the sum of one's knowledge and experience? There are different meanings of the term, and that is shown when comparing the writings of Carol S. Dweck and Annie Murphy Paul, two scholars with very distinct outlooks on the subject of intelligence. While Dweck believes that intelligence is dependent upon what mindset a student has, Paul believes that intelligence is dependent upon the situation a person may be in.*

  The focus of the response, the meaning of intelligence, is immediately revealed in the opening sentence. The use of rhetorical questions effectively introduces aspects of the concepts that will be discussed over the course of the response.

- **The student utilizes effective organizational strategies to create a unified whole. The uses of transitions and paragraphing to order information are effective, aiding in overall comprehension. The organizational structure is clear and consistent.**

- **The student effectively clarifies relationships among ideas and concepts. For example:**
  - *This view can have bad effects when the child actually faces a challenge, as he/she will perceive the need to put in effort as an indication of weakness and a "threat to their ego." These children have excelled effortlessly, academically speaking, all their lives; while the reason this is no longer the case remains a mystery to them, the newfound fear of failure is very real. Dweck supports this assertion with data from a 1970s study she performed. Referring to children with a fixed mind-set, she states, "Some students reacted defensively to mistakes, denigrating their skills […], and their problem-solving*

Continued on the next page . . .

strategies deteriorated." These children view the challenge not as an opportunity to improve but rather as proof that they are not actually as smart as they originally thought. Additionally, since such children view their intelligence as a permanent trait which can't be improved, their struggling to complete difficult tasks will discourage them from even approaching tasks that could potentially be construed as too challenging. These challenges are unwelcome and unfamiliar risks that should be avoided in order to maintain their designation as gifted and smart.

The student appropriately balances text evidence with explanations to further define the concept of a "fixed mind-set." The student maintains focus throughout the response, without any lapses. This helps to create cohesion.

- **The student provides an effective and relevant concluding section:**
  - *Overall, the two writers have very different views on what intelligence is, and how it is achieved. While Dweck thinks that a child's mind-set, fixed or growth, has a big impact on how he/she approaches the trials of life, Paul looks at intelligence more as a fluid concept affected by external factors. They differ with respect to the factors that determine an individual's self-confidence in his/her own intelligence, Dweck focusing on praise and the reason it's given while Paul is more concerned with the detrimental effects of social stigmas and stereotypes. Regardless, one truth that can be gleaned from both articles would be that children and adults need to view intelligence as a goal that they have the power to achieve instead of a predetermined value that they can't control or change.*

The concluding section effectively wraps up the discussion that precedes it. The student insightfully links the two texts in the final statement.

GRADES 11–12
ITEM 2
DEVELOPMENT
ANCHOR

Score:	Development
4	In response to the task and the stimuli, the writing: • utilizes well-chosen, relevant, and sufficient evidence[1] from the stimuli to thoroughly and insightfully develop the topic. • thoroughly and accurately explains and elaborates on the evidence provided, demonstrating a clear, insightful understanding of the topic and the stimuli.
3	In response to the task and the stimuli, the writing: • utilizes relevant and sufficient evidence[1] from the stimuli to adequately develop the topic. • adequately and accurately explains and elaborates on the evidence provided, demonstrating a sufficient understanding of the topic and the stimuli.
2	In response to the task and the stimuli, the writing: • utilizes mostly relevant but insufficient evidence[1] from the stimuli to partially develop the topic. Some evidence may be inaccurate or repetitive. • explains some of the evidence provided, demonstrating only a partial understanding of the topic and the stimuli. There may be some level of inaccuracy in the explanation.
1	In response to the task and the stimuli, the writing: • utilizes mostly irrelevant or no evidence[1] from the stimuli, or mostly/only personal knowledge, to inadequately develop the topic. Evidence is inaccurate or repetitive. • inadequately or inaccurately explains the evidence provided, demonstrating little understanding of the topic and the stimuli.

[1] Evidence includes facts, extended definitions, concrete details, quotations, or other information and examples as appropriate to the task and the stimuli.

EXPLANATION OF DEVELOPMENT RUBRIC TERMS

"In response to the task and stimuli"

- **As you assess development in a student's response, remember that you are scoring based upon how the student develops in response to the task and the stimuli. If a response does not address the task, any information and ideas presented would be considered irrelevant.**

"…insightfully develop the topic"

- **In order to show insightful development, a student must move beyond simply stating an idea and supporting that idea. Text-based evidence should be well-chosen and explanations of ideas should demonstrate advanced understanding of the task and the stimuli. Note that personal information outside of the text cannot in and of itself demonstrate insight into the topic.**

"evidence"

- **Evidence refers to facts, extended definitions, concrete details, quotations and other information that the student uses from the text.**

"inaccurate/inaccuracy"

- **Inaccuracy may be exhibited through the use of erroneous evidence, through the misinterpretation of evidence from the text, or through erroneous explanation of accurate evidence from the text. Inaccuracy is a quality of an inadequately developed response. However, it does not prevent a student from showing partial development. The level and amount of inaccuracy will determine how detrimental it is to the score.**

"personal knowledge"

- **The Phase 1 Writing Task is a text-based assessment. The bulk of the student's writing should be focused on the given task and text, including the evidence used in development. Students may make a personal connection with the topic and the stimuli; however, this should not replace the use of text-based evidence or overshadow text-based development. Doing so would weaken the student's response in relation to the task.**

"the topic and the stimuli"

- **With regards to the rubric, the term "topic" refers to the task directives, while the "stimuli" refers to the associated text(s). The topic for the Analysis essay is how the authors use and refine the meaning of intelligence over the course of the text.**

You will now review 8 individual anchor responses, scored only in Development, along with annotations to help you internalize the use of the rubric for this trait.

Development Anchor: Response #1

According to Annie Murphy Paul, auther of "It's Not Me, It's You", a student who has a growth mind-set and truly knows a large amout about the subject at hand and a woman, will likely do worse on an exam than a man, if the students know that the exam is measureing intelagence. The same could be said, according to Paul, if the person of great intellagence was a man, and the test was designed to, as far as he knew, determine "Why Asians appear to outperforme other students on a test of math ability." The trouble these students are faceing are due to trying to disprove a steirotype. Annie Paul belives that these students are suffering because he or she is overthinking things, which is causing the problems.

SCORE POINT: 1

Development Anchor: Response #1

Annotations
SCORE POINT: 1

In response to the task and the stimuli:

- **The student utilizes mostly irrelevant evidence from the stimuli to inadequately develop the topic. For example:**
  - *"Why Asians appear to outperforme other students on a test of math ability."*

  Although the response mentions a "growth mind-set" briefly in the initial sentence, it focuses almost exclusively on Paul's text. The comparison between the two texts is missing.

- **The student inadequately and inaccurately explains the evidence provided, demonstrating little understanding of the topic and the stimuli. For example:**
  - *Annie Paul belives that these students are suffering because he or she is overthinking things, which is causing the problems.*
  - *[A] student who has a growth mind-set and truly knows a large amout about the subject at hand and a woman, will likely do worse on an exam than a man, if the students know that the exam is measureing intelagence.*

  These assertions are not supported by the text and indicate little understanding of the stimuli. The lack of explanation causes this to be an inadequate response to the task.

Development Anchor: Response #2

Annie Murphy Paul says in the text, "It's Not Me, It's You," that intelligence is not a "lump of something that is in our heads," (line 9-10) but as "a transaction among people." (line 10-11) People have this crazy ability to make you feel smart and funny or helplessly unintelligent. We have this bad habit of sterotyping people and putting them into groups. We evaluate them, putting them into groups as to their social life.

I think the sterotyping people goes along with what Dweck says in the text "The Secret to Raising Smart Kids." In our society, many people aren't striving to be smart or intelligent. They want to be cool and popular. In "The Secret to Raising Smart Kids" Dweck says in Lines 18-22 "such children hold an implict belief that intelligence is innate and fixed, making striving to learn seem far less important

SCORE POINT: 1

Annotations
SCORE POINT: 1

In response to the task and the stimuli:

- **The student utilizes mostly irrelevant evidence from the stimuli, which inadequately develop the topic. For example:**

  - *I think the sterotyping people goes along with what Dweck says in the text "The Secret to Raising Smart Kids." In our society, many people aren't striving to be smart or intelligent. They want to be cool and popular.*

  The student uses personal knowledge, with no basis in the text, to attempt to develop the topic. This attempt at comparison does not accurately reflect the intended meaning of the text. It also lacks text support, and there is inadequate development.

- **The student inadequately or inaccurately explains the evidence provided, demonstrating little understanding of the topic and the stimuli. For example:**

  - *Annie Murphy Paul says in the text, "It's Not Me, It's You," that intelligence is not a "lump of something that is in our heads," (line 9-10) but as "a transaction among people." (line 10-11) People have this crazy ability to make you feel smart and funny or helplessly unintelligent. We have this bad habit of sterotyping people and putting them into groups. We evaluate them, putting them into groups as to their social life.*

  The text evidence does not support or relate to the explanation that follows. The explanation is also not a valid inference because it cannot be drawn from the text as a whole. While the response does briefly discuss each text, the explanation provided is minimal and does not relate to the given topic. The response lacks task awareness, failing to discuss intelligence.

Development Anchor: Response #3

In the first article, the author describes intelligence as the difference between ability and effort. The author states that effort-guided individuals are more eager to learn than those guided by their ability. In the second article, the author describes intelligence as how a person perceives his/herself. The author states that racial, gender, and environmental stereotypes affect how a person tests.

The first article explains that intelligence is based on a mind-set. The author states that a person's childhood praise influences their mindset. The author states that a fixed mindset can make a person arrogant, closed-minded, and stubborn, while a growth mind-set can make a person open-minded, humble, and persuadable.

The second article explains that intelligence is affected by many stereotypes. Girls often score lower on tests if reminded of their gender. Likewise, if minorities are reminded of their race, they tend to score lower than the majority. Also, a child's environment can affect how well they test. Also, if the test takers are told that the test will gauge their intelligence, they are more likely to score lower.

While both articles are different, they are also very alike in that they explain that parents and mentors all influence a person greatly. The more a person is told of their shortcomings or praised for their intelligence, the more they'll lean on it. Both articles explain that we need to be more understanding, and help rather than praise. We can learn a lot if we want to. As the old phrase goes, "you can lead a horse to water, but you can't make him drink."

SCORE POINT: 1

Annotations
SCORE POINT: 1

In response to the task and the stimuli:

- **The student utilizes mostly irrelevant evidence from the stimuli. Although the evidence is not inaccurate or repetitive, the student inadequately develops the topic. Many ideas/concepts from the text are simply restated without any additional development or elaboration.**

- **The student inadequately explains the evidence provided, demonstrating little understanding of the topic and the stimuli. The response fails to provide any explanation in regards to the topic. In the conclusion, comparison and analysis are attempted but lack explanation. For example:**

  - *Both articles explain that we need to be more understanding, and help rather than praise. We can learn a lot if we want to. As the old phrase goes, "you can lead a horse to water, but you can't make him drink."*

  The response only summarizes the text without analysis or comparison. Without further explanation, the analogy in the final sentence does not connect to any definition of intelligence in either text.

Development Anchor: Response #4

Both articles have similar and differing definitions of intelligence. These definitions coincide with each other in such a way that they simultaneously tear each other down whilst also building each other up. One major factor in the comparativeness in these studies could be that they both originate in the same time period, thus answers should not have deviated much from the social norm. Through looking deeper into Paul and Dweck's different interpretations on iteligence and their comparison, it should become obvious what the true definition is.

Paul noted highly that when it comes to intelligence, it seems to be more about others than the person themself. She stated that a professer studying this called this phenomena "conditional stupidity". Throughout multiple tests, professers Claude Steele and psychologist Joshua Aronson, the one who coined the term 'conditional stupidity', noticed that when reminded of another group or individual's records or acheivements, one will try to either beat or maintain that goal. When they did a study with drivers by telling all of the participants that males are better drivers, women struggled to beat the stereotype while the men struggled to rise up to it. This struggle can be noticed between gender, race, and a number of other things.

Dweck's findings showed that intelligence stems from the mindset of a person. Individuals that have been raised on the praise of their hardwork appear to be more 'intelligent' than those praised for pure talent. Those that were raised on talent praise developed a fixed-mindset which means that when posed a challenge, the student would shy away due to the fact that they may fail and not be as smart as they originally expected. The other group who were raised on the praise of hard work and effort tended to be more inclined to accept the challenges, and even though they may not have been 'smart' enough to overcome them, they were determined to become 'smart' enough.

These theories have places where they overlap and places where they diverge. In comparison, Dweck and Paul both see intelligence as something internal and changeable, though where this stems from they disagree on. Paul thinks that intelligence comes from the thoughts and stereotypes of others, and while Dweck agrees that other individuals have their part in it, Dweck thinks that it comes from how one percieves themself. Are either of them wrong? Certainly not. Are either of them right? Well, we might never truly know.

SCORE POINT: 2

Annotations
SCORE POINT: 2

In response to the task and the stimuli:

- **The student utilizes mostly relevant, but insufficient, evidence from the stimuli, partially developing the topic. Some evidence may be inaccurate or repetitive. For example:**

  - *When they did a study with drivers by telling all of the participants that males are better drivers, women struggled to beat the stereotype while the men struggled to rise up to it.*

  This appears to be an inaccurate reference to the study from the second text (lines 35–40). Due to inaccuracy of evidence, the student fails to adequately develop the response. Many ideas/concepts from the text are restated and then followed with an attempt at additional development and elaboration.

- **The student explains some of the evidence provided, demonstrating only a partial understanding of the topic and the stimuli. Most of the attempted comparison and analysis take place in the concluding paragraph. For example:**

  - *These theories have places where they overlap and places where they diverge. In comparison, Dweck and Paul both see intelligence as something internal and changeable, though where this stems from they disagree on. Paul thinks that intelligence comes from the thoughts and stereotypes of others, and while Dweck agrees that other individuals have their part in it, Dweck thinks that it comes from how one percieves themself.*

  The explanation demonstrates some understanding of the stimuli. However, the comparison remains limited and lacks sufficient text evidence.

Development Anchor: Response #5

"It's not me, It's You" and "The Secret to Raising Smart Kids" are two articles based on the subject of intelligence. While both articles agree on the idea that intelligence isn't an unchangeable thing, they disagree on the exact concept of it.

In the second paragraph of Dweck's article, she begins emphasizing that confidence is key to unlocking a person's best efforts. Paul agrees with this when she states "We should also put in place techniques for...building self-confidence that take advantage of our social natures." Paul's article also determines that intelligence is not static and changes due to someone's surroundings. The idea of the "growth mind-set" that Dweck shares shows a similar thought in that change in intelligence is very possible.

Although both Dweck and Paul agree on these things, their definitions of intelligence are not carbon copies. Each author believes in a maleable intelligence, however, Dweck finds that intelligence at any one point is measurable even if it may change. Paul sees intelligence as an everchanging and more abstract and immeasurable thing. Paul shares a quote solidifying her thoughts that states, "[intelligence is not] a lump of something that's in our heads, [it's] a transaction among people." This quote, it seems, would fault all of the many trials that Dweck participated in seeing through since all of the participants might have reacted differently under different experimental circumstances.

Even though both articles agree that intelligence is subject to change, they do not agree on the exact definition of that intelligence.

SCORE POINT: 2

Annotations
SCORE POINT: 2

In response to the task and the stimuli:

- **The student utilizes mostly relevant but insufficient evidence from the stimuli to partially develop the topic. For example:**
  - *"We should also put in place techniques for . . . building self-confidence that take advantage of our social natures."*
  - *"[intelligence is not] a lump of something that's in our heads, [it's] a transaction among people."*

  The examples above are the only text evidence provided. More consistent use of text-based evidence would be necessary in order to reach adequate development.

- **The student explains some of the evidence provided, demonstrating only a partial understanding of the topic and the stimuli. There is some level of inaccuracy in the explanation. For example:**
  - *This quote, it seems, would fault all of the many trials that Dweck participated in seeing through since all of the participants might have reacted differently under different experimental circumstances.*

  Although this assertion could potentially be supported, it remains unexplained. There is some comparison and contrast of the two texts, but explanation and elaboration are not sufficient, demonstrating only partial understanding.

Development Anchor: Response #6

Throughout both articles, it is expressed that intelligence was of mind-set rather than a code embedded in our DNA structure. How people look at their learning skills has a lot to do with how intelligent they appear to others or even how intelligent they appear to themselves. With regards to Dweck's article, there are two different classifying attributes to a student's performance: growth mind-set and fixed mind-set. On the other hand, Paul's article represents that a student's social and environmental surroundings heavily influenced their ability and performance on a test. Considerably, studies done by Paul and Dweck had underlying features that hold true for certain circumstances. Paul focuses on the circumstances of a student's current social situation while Dweck is more concerned with the circumstances in which a student is praised.

Within Dweck's findings, she centralized the student's efforts over their ability and examined how mistakes and praise could hold an astonishing impact on a student's self-confidence. This is shown when she says, "I developed a broader theory of what separates the two general classes of learners – helpless versus mastery-oriented (line 75, A1)." So, the helpless ones have a fixed mind-set and the mastery-oriented ones have a growth mind-set. She goes on to say, "helpless ones believe that intelligence is a fixed trait: you have only a certain amount, and that's that (lines 77-79, A1)." The opposite side which is growth mind-set has children who, "think intelligence is malleable and can be developed through education and hard work (lines 84-85, A1)." Clearly, Dweck is saying that kids with a growth mind-set have more of a chance to be successful than kids with a fixed mind-set.

However, Paul's research concluded the social surroundings played a part in students' abilities to achieve higher scores that their counterparts. Paul says, "It's just one example of the powerful influence that social factors can have on intelligence (line 7-8, A2)." His studies show that stereotypes influenced students to question or doubt their abilities when he said, "The evolving literature on stereotype threat shows that performance is always social in nature (lines 41-42, A2)." He theorizes that, "We should put in place techniques for minimizing stress and anxiety as well a building self-confidence (lines 66-67, A2)." If children feel uncomfortable for any reason, their intelligence will come out lower than if they were feeling relaxed.

Within the contents of both articles, we see a similarity in how both articles emphasize and stress the importance of education and how we percieve the options for learning. Intelligence itself doesn't actually come from being praised or being stereotyped. It comes from how we choose to address more demanding assignments and duties. Will we "avoid challenges because challenges make mistakes more likely (line 81,

A1)?" Will we "feel hopelessly unintelligent and inarticulate in the presence of another (line 2, A2)?" After reading these articles, I hope my answer and yours will be "no". That is the lesson to be learned after reading these two articles about intelligence.

SCORE POINT: 3

Annotations
SCORE POINT: 3

In response to the task and the stimuli:

- **The student utilizes relevant and sufficient evidence from the stimuli to adequately develop the topic. For example:**
  - *"I developed a broader theory of what separates the two general classes of learners – helpless versus mastery-oriented (line 75, A1)."*
  - *"The evolving literature on stereotype threat shows that performance is always social in nature (lines 41-42, A2)."*
  - *"helpless ones believe that intelligence is a fixed trait: you have only a certain amount, and that's that (lines 77-79, A1)."*

  The evidence chosen expands upon concepts outlined in the text. Each piece of text evidence is relevant to the topic of intelligence, leading to adequate development.

- **The student adequately and accurately explains and elaborates on the evidence provided. For example:**
  - *Intelligence itself doesn't actually come from being praised or being stereotyped. It comes from how we choose to address more demanding assignments and duties.*

  This elaboration helps demonstrate a sufficient understanding of the topic and the stimuli. It represents the student drawing a valid conclusion, which is followed by text evidence.

It's Not Me, It's You vs. The Secret to Raising Smart Kids

The word intelligence can have many meanings to many different people. Carol S. Dweck and Annie Murphy Paul each have their own opinions about the meaning of the word. The meanings of intelligence that they explore have to do with different backgrounds. In the article "The Secret to Raising Smart Kids," Dweck explains that intelligence can either be developed (growth mind-set) or it can be limited (fixed mind-set). These mind-sets are the result of how/why a child is praised, for talent (fixed) or effort (growth). In the article "It's Not Me, It's You," Paul explains that intelligence depends on who you are with. If you're at ease around a familiar group of people, you'll be perceived as more intelligent, while you'll seem less smart if surrounded by strangers. Professor Aronson backs up Paul's view on the subject, calling it "conditional stupidity." Their ideas about intelligence might be different, but they have a common objective which is to reduce constraints people impose on the intelligence of others as well as themselves.

It should be easy to show the differences in the authors' views of intelligence. Paul believes that your intelligence temporarily decreases in uncomfortable situations, whereas Dweck believes that, when faced in an uncomfortable situation, the intelligence is based on the individual's mindset. While both authors agree that how comfortable someone might feel at any time can bring down someone's intelligence, they disagree on the source of anxiety. Paul expands on this point saying, "you feel especially smart and funny when talking to a particular person, only to feel hopelessly unintelligent and inarticulate in the presence of another." So a person's comfort level in their situation matters in terms of how smart they look or act. Dweck emphasizes a different aspect of a person's comfort level. She says that, "Some students reacted defensively to mistakes […] and their problem-solving strategies deteriorated." Dweck is talking about the children with a fixed mind-set who became uncomfortable after having trouble with something.

There are some similarities between the two authors' views on intelligence. Both writers agree that intelligence is managed by outside sources. For Dweck, it's how you are praised. Dweck supports this idea, claiming that "Although many parents believe that they should build up a child by telling him or her how brilliant and talented he or she is, our research suggests that this is misguided." Instead, she says that "teaching people to have a "growth mind-set," which encourages a focus on effort rather than on intelligence or talent, helps make them into high achievers in school and in life." Dweck believes that it's how you are praised and how you are taught to think that affects performance. Parents usually think that praising their children is harmless, but Dweck has shown that there can

be serious consequences if praise is given in the wrong context. For Paul, it's what someone says to you before performance. Paul believes that if you are faced with a "stereotype threat" then you are less likely to achieve as much as you could if you had not been faced with said "stereotype threat." Stereotype threat means that, "the prospect of social evaluation suppressed these students' intelligence." Sometimes thinking about how others might appraise your intelligence can have a negative impact on achievement, as proven by the statement "Black students scored much lower when they were instructed that the test was meant to measure their intellectual ability."

The commonground these writers share, maybe the most important message of these articles, is that these "temporarily stupid" situations can be avoided. For Dweck, you simply praise hard work instead of how smart someone is. For Paul, refraining from expressing a stereotype threat will keep students from worrying about falling into a certain stereotype that is bound to, stereotypically, not do so well. The main thing is that students, and people in general, can accomplish more if they aren't weighed down by negative prejudices about intelligence. At the end of the day, both authors have the same goal; to give children the best possible chance to succeed in school and in life.

SCORE POINT: 3

Annotations
SCORE POINT: 3

In response to the task and the stimuli:

- **The student utilizes relevant and sufficient evidence from the stimuli to adequately develop the topic. For example:**
  - *"Although many parents believe that they should build up a child by telling him or her how brilliant and talented he or she is, our research suggests that this is misguided."*
  - *"you feel especially smart and funny when talking to a particular person, only to feel hopelessly unintelligent and inarticulate in the presence of another."*

  Evidence from the text is selected to develop the topic of *intelligence*.

- **The student adequately and accurately explains and elaborates on the evidence provided, demonstrating a sufficient understanding of the topic and the stimuli. For example:**
  - *Stereotype threat means that, "the prospect of social evaluation suppressed these students' intelligence." Sometimes thinking about how others might appraise your intelligence can have a negative impact on achievement, as proven by the statement "Black students scored much lower when they were instructed that the test was meant to measure their intellectual ability."*

  The elaboration above is present throughout the response. The student provides text evidence, followed by an adequate explanation. The explanation is supported by additional text evidence, helping to adequately develop the response.

Development Anchor: Response #8

Intelligence can be interpreted in many different ways. Can intelligence, as an intangible and somewhat abstract concept, be accurately measured and quantified? Is intelligence more than just the sum of one's knowledge and experience? There are different meanings of the term, and that is shown when comparing the writings of Carol S. Dweck and Annie Murphy Paul, two scholars with very distinct outlooks on the subject of intelligence. While Dweck believes that intelligence is dependent upon what mindset a student has, Paul believes that intelligence is dependent upon the situation a person may be in.

Dweck believed that intelligence is dependent on the student's mind-set. She believed that if a student has a growth mind-set, he/she will be more open to challenges, unlike those with a fixed mind-set. The student's mind-set is usually determined by why the child is specifically praised after doing well. If praised for "being very smart," the child will likely develop a fixed mind-set, described by Dweck as "an implicit belief that intelligence is innate and fixed." This view can have bad effects when the child actually faces a challenge, as he/she will perceive the need to put in effort as an indication of weakness and a "threat to their ego." These children have excelled effortlessly, academically speaking, all their lives; while the reason this is no longer the case remains a mystery to them, the newfound fear of failure is very real. Dweck supports this assertion with data from a 1970s study she performed. Referring to children with a fixed mind-set, she states, "Some students reacted defensively to mistakes, denigrating their skills […], and their problem-solving strategies deteriorated." These children view the challenge not as an opportunity to improve but rather as proof that they are not actually as smart as they originally thought. Additionally, since such children view their intelligence as a permanent trait which can't be improved, their struggling to complete difficult tasks will discourage them from even approaching tasks that could potentially be construed as too challenging. These challenges are unwelcome and unfamiliar risks that should be avoided in order to maintain their designation as gifted and smart. On the flipside, if a child is praised for putting forth a good amount of effort, he/she will probably end up with a growth mind-set. In regards to children with a growth mind-set in the same study, Dweck says, "Others, meanwhile, focused on fixing errors and honing their skills." The result, success or failure, is less important to a child with a growth mind-set; he/she will see his/her achievement as the result of how hard he/she tried, possibly showing the need to try harder. The fundamental difference between the two mind-sets lies in how an individual deals with a problem he/she cannot currently solve. Do they throw in the towel and give up or press on without fear in the face of adversity?

Paul, however, says that students who are members of a group that is stereotyped as second-rate will have a harder time on tests when reminded of that fact. For example, "Black students scored much lower when they were instructed that the test was meant to measure their intellectual ability." Mentioning that the test was meant to measure intellectual ability, Paul claims, carries with it a negative connotation based in the stereotype that black students have less intellectual ability than whites. She goes on to say that, "experiments in the 1990s, and the dozens of studies by other researchers that followed, concluded that the performance of these students suffered because they were worried about confirming negative stereotypes about their group." This shows that students stereotyped, or those that are worried about this do worse, which is what Paul wanted to prove. Paul reinforces this point with the statement, "Members of groups believed to be academically inferior – African-American and Latino students enrolled in college, or female students in math and science courses – score much lower on tests when reminded beforehand of their race or gender." Paul isn't trying to say that these groups are actually less intelligent, but rather that they are susceptible to what Professor Joshua Aronson calls "stereotype threat." Paul is saying that the social conditions in which intelligence are measured can affect a student's academic performance in a detrimental way. The environment that kids are tested in should be comfortable and unbiased. It should be a judgment-free zone without prejudice, real or implied, to prevent what Aronson refers to as "conditional stupidity."

In spite of their somewhat divergent ideas on the subject of intelligence, it is important to point out that there is some overlap between the two articles. Both of them agree that intelligence is rooted in a person's self-confidence, to some degree. Dweck expands on this by saying "Although all the students cared about grades, the ones who earned the best grades were those who placed a high premium on learning rather than on showing that they were smart in chemistry." Paul agrees, saying, "when people report feeling comfortable with a conversational partner, they are judged as being more witty." They think external factors have a significant impact on how well any individual might do on any particular task or assessment. People can, in essence, allow themselves to be affected by outside influences and then underperform.

Overall, the two writers have very different views on what intelligence is, and how it is achieved. While Dweck thinks that a child's mind-set, fixed or growth, has a big impact on how he/she approaches the trials of life, Paul looks at intelligence more as a fluid concept affected by external factors. They differ with respect to the factors that determine an individual's self-confidence in his/her own intelligence, Dweck focusing on

praise and the reason it's given while Paul is more concerned with the detrimental effects of social stigmas and stereotypes. Regardless, one truth that can be gleaned from both articles would be that children and adults need to view intelligence as a goal that they have the power to achieve instead of a predetermined value that they can't control or change.

SCORE POINT: 4

Annotations
SCORE POINT: 4

In response to the task and the stimuli:

- **The student utilizes well-chosen, relevant, and sufficient evidence from the stimuli to thoroughly and insightfully develop the topic. For example:**
    - *"Although all the students cared about grades, the ones who earned the best grades were those who placed a high premium on learning rather than on showing that they were smart in chemistry."*
    - *"experiments in the 1990s, and the dozens of studies by other researchers that followed, concluded that the performance of these students suffered because they were worried about confirming negative stereotypes about their group."*

  The student takes multiple opportunities to discuss specific relevant evidence from the text throughout the response, showing insightful development. Text evidence is effectively integrated into the response, consistently supporting the student's ideas.

- **The student thoroughly and accurately explains and elaborates on the evidence provided, demonstrating a clear, insightful understanding of the topic and the stimuli.**
    - *Paul agrees, saying, "when people report feeling comfortable with a conversational partner, they are judged as being more witty." <u>They think external factors have a significant impact on how well any individual might do on any particular task or assessment. People can, in essence, allow themselves to be affected by outside influences and then underperform.</u>*
    - *This view can have bad effects when the child actually faces a challenge, as he/she will perceive the need to put in effort as an indication of weakness and a "threat to their ego." <u>These children have excelled effortlessly, academically speaking, all their lives; while the reason this is no longer the case remains a mystery to them, the newfound fear of failure is very real.</u>*

Continued on the next page . . .

Development Anchor: Response #8

The student demonstrates a clear understanding of the topic and stimuli by providing clear explanations of the evidence chosen. The student moves beyond just using text evidence and follows with further elaboration about why the chosen text evidence is important to the concept of intelligence. The student compares and contrasts ideas within each text separately as well as between both texts, producing a thorough and insightful analysis of the topic.

- **The student adequately and accurately explains and elaborates on the evidence provided, connecting the evidence to claim(s) and counterclaim(s) and demonstrating a sufficient understanding of the topic and the stimuli. For example:**

  - *Vince gave a lot better convincing argument since he gave a lot more information then Dolaria on how the products could help, and if they helped. Dolaria focused a lot more on how the coral reefs were on how the coral reefs were being destroyed, and almost skimming on how the coralbots could fix the problem.*

  The student clearly connects the given evidence to the position that "Sunken Steel Cages Could Save Coral Reefs" is more effective. These statements from the student's conclusion explain how the evidence presented earlier in the response supports the student's position. Evaluative comments throughout the paper ("*It does not help*," "*effective, no fluff point*," "*it takes about 16 lines to get to the main point*") further demonstrate a sufficient understanding of the task and the given texts.

Development Anchor: Response #8

They say where there's a will, there's a way, and I believe this is true. If there is a problem, that problem can bve solved, if one has proper motivation to solve it. I read the two texts "Ingenious Coralbots May Help Restore Coral Reefs" and "Sunken Steel Cages Could Save Coral Reefs." Of the two, I liked Meera Dolasia's article better and thought that she had a more effective argument. She clearly presents the problem, gives a clear reason why we should be motivated to help find a solution, and then offers a solution she really believes in. Vince doesn't do any of these things and so her argument is less effective.

When Meera Dolasia first talks about the coral reefs, she describes them as "beautiful" and "extremely useful." They give homes to "25% of all marine life." She is really making the audience feel like the coral reefs are important. Then she talks about how the coral reefs are being destroyed. Dolasia focuses on what humans are doing to destroy the reefs. This is mostly a fishing method called bottom trawling that breaks off branches of coral when the fishermen drag their nets along the ocean floor. When she talks about this, she uses emotional words like "very disheartening" to make the audience feel bad for the destruction other humans are causing.

When Gaia Vince talks about the coral reefs, the only reason she gives the audience for saving them is that they hold "a quarter of life on Earth." She doesn't tell us that the coral are beautiful or useful to us. When she is discussing what is causing the destruction, she focuses on rising carbon dioxide levels. She doesn't say that humans are causing coral reef destruction. The audience doesn't feel bad about the destruction of the coral reefs because they don't think it's their fault. If the audience doesn't feel like it's their fault, they won't want to do anything to fix the problem.

Then there are the solutions. Dolasia talks about the coralbots as if they are best invention ever. They are "cleverly disguised", designed to "deftly" sttsch broken coral to the reef, and able to do what volunteer scuba divers can't do: dive deep enough and stay underwater long enough to fix the coral reefs. Vince gives many reasons why the steel cages she talks about aren't a good solution. She says that results are encouraging, but only on a small scale. The cages are too expensive and have done nothing to save the shore line. She has a quote where the director of a marine research center warns "that the wider picture for his country remained bleak." This negative view isn't very encouraging. Dolasia is more optimistic and that will get people motivated to support her coralbots.

Continued on the next page . . .

Development Anchor: Response #8

Overall, Dolasia gives the more effective argument because she really gives the audience the will to save the coral reefs. First, she gives reasons why the reefs should be saved. Then, she motivates the audience by showing how humans are to blame for the destruction of coral reefs. Finally, she focuses on the positive aspects of the coralbots. Vince does none of those things so her argument is not as effective. Dolasia's enthusiasm is infectious and it makes me want to get coralbots into the oceans so they can save our coral reefs!

SCORE POINT: 4

Development Anchor: Response #8

Annotations
SCORE POINT: 4

- **The student writes a response that argues that "Ingenious Coralbots May Help Restore Coral Reefs" presents the more effective argument based on the given reasoning and evidence.**

In response to the task and the stimuli:

- **The student utilizes well-chosen, relevant and sufficient evidence from the stimuli to thoroughly and insightfully support claim(s) and counterclaim(s). For example:**
  - *When Meera Dolasia first talks about coral reefs, she describes them as "beautiful" and "extremely useful." They give homes to "25% of all marine life." She is really making the audience feel like the coral reefs are important. Then she talks about how the coral reefs are being destroyed.*
  - *Dolasia focuses on what humans are doing to destroy the reefs. This is mostly a fishing method called bottom trawling that breaks off branches of coral when the fishermen drag their nets along the ocean floor. When she talks about this, she uses emotional words like "very disheartening" to make the audience feel bad for the destruction other humans are causing.*
  - *When Gaia Vince talks about the coral reefs, the only reason she gives the audience for saving them is that they hold "a quarter of life on Earth." She doesn't tell us that the coral are beautiful or useful to us.*
  - *When [Vince] is discussing what is causing the destruction, she focuses on rising carbon dioxide levels. She doesn't say that humans are causing coral reef destruction.*

Continued on the next page . . .

Development Anchor: Response #8

The student takes multiple opportunities to present specific, relevant evidence demonstrating that "Ingenious Coralbots May Help Restore Coral Reefs" is more effective because it clearly presents the problem of coral reef destruction, motivates the reader to find a solution, and then presents a solution with confidence. A good deal of additional evidence is chosen to demonstrate that "Sunken Steel Cages Could Save Coral Reefs" is not as effective. This thorough discussion of "Sunken Steel Cages Could Save Coral Reefs" further supports the student's position by demonstrating ways in which this text is less effective.

- **The student thoroughly and accurately explains and elaborates on the evidence provided, connecting the evidence to claim(s) and counterclaim(s) and demonstrating a clear, insightful understanding of the topic and the stimuli. For example:**

  - *The audience [of Vince's article] doesn't feel bad about the destruction of the coral reefs because they don't think it's their fault. If the audience doesn't feel like it's their fault, they won't want to do anything to fix the problem . . . [Dolasia] motivates the audience by showing how humans are to blame for the destruction of the coral reefs.*
  - *[Vince's] negative view isn't very encouraging. Dolasia is more optimistic and that will get people motivated to support her coralbots.*
  - *Dolasia's enthusiasm is infectious and it makes me want to get coralbots into the oceans so they can save our coral reefs!*

  These insightful comments show a strong synthesis of information from the stimuli and the student's own ideas. The student thoroughly compares the evidence and reasoning of the given texts, producing a comprehensive analysis of the topic.

Sample Student Thesis

High School

Sample Thesis 1:

While Dweck believes that intelligence is dependent upon what mindset a student has, Paul believes that intelligence is dependent upon the situation a person may be in.

Analysis:

This thesis succinctly summarizes the key differences between the two authors' analyses of the term intelligence (note the syntactic structure, opening with "while," allows the student to make a clear contrast) while subtly also implying an underlying connection by repeating the word "dependent."

Sample Thesis 2:

Their ideas about intelligence might be different, but they have a common objective which is to reduce constraints people impose on the intelligence of others as well as themselves.

Analysis:

This thesis uses specific, vivid diction ("constraints," "impose") to strongly characterize a common analysis of how the authors define intelligence. Although this thesis does not provide any specific analysis of the differences, the phrase "might be different" implies that, previously in the introduction, this student has already established those differences. This is a good example of how it is not necessary to "spill all the beans" and say *everything* in a thesis. In one sense, the entire introduction can be used to establish a student's ideas, while the thesis statement captures most cogently and forcefully his main point.

Peer Review Exercise: Evaluating Thesis Statements (High School)

A good thesis does two things:

1) It satisfies the prompt by answering what the prompt is looking for
2) It has three qualities (DDS):
   - **D**ebatable: A reasonable person (a good fellow reader) should be able to disagree. Otherwise, the thesis is factual (e.g. "Intelligence is defined as 'the faculty of understanding.'") and there is nothing to prove!
   - **D**efensible: There is enough textual evidence to reasonably prove, or defend, the thesis.
   - **S**pecific: The thesis makes a clear, specific point instead of a general one.

Now that you know the characteristics of a good thesis, evaluate your partner's thesis by completing the following steps.

a) What questions does this thesis need to answer? Turn the prompt into one or two **questions** and write them below:

b) Write your partner's **thesis** below:

c) Does your partner's thesis **answer the questions** from the prompt? If so, how do you know? If not, what could your partner do to better answer the questions?

d) Is your partner's thesis **debatable**? Prove it by writing a counterclaim (take the opposite point of view) below. If you can't write a counter claim, chances are the original thesis is not debatable:

e) Is your partner's thesis **defensible**? Find two pieces of evidence from each text that might prove this thesis. If you can't list four, chances are the thesis is not strongly defensible.

Text 1 evidence #1:
Text 1 evidence #2:
Text 2 evidence #1:
Text 2 evidence #2:

f) Is your partner's thesis **specific**? In your partner's thesis in part b), **underline** words or ideas that are specific. **Circle** words or ideas that are general or vague.

g) Once this sheet is complete, exchange it with your partner. Your partner should **revise** his or her original thesis based upon your feedback.

Quotes on the Writing Process

Revision, Editing, and Proofreading

"In general *revision* is best thought of as re-vision, re-looking, re-working of a piece of writing. This may include changing significant portions of the writing, such as rearranging sections, deleting sections, rewriting openings and closings, or even refocusing the entire piece. Revision can transform a piece of writing.

Editing, on the other hand, is a look at a revised piece of writing to review and change word order and sentence structure and to check usage issues. At this stage the major changes in the writing have been established; the changes made in editing are less intrusive and far less significant to the meaning of a final piece of writing.

Proofreading is a last look at a revised, edited piece, and it includes verification that all minor details of usage are addressed (such as capitalization, indentation of paragraphs, and sufficient spaces between title and body). It is a final polishing."

Source: Gere, Ann Ruggles, Leila Christenbury, and Kelly Sassi. *Writing on Demand: Best Practices and Strategies for Success*. Portsmouth, NH: Heinemann, 2005.

What is revision?

"Revision takes you from self to society, from the writer's concerns to the readers' concerns"

Source: Bishop, Wendy. "Introduction." *Acts of Revision: A Guide for Writers*. Ed. Wendy Bishop. Portsmouth, NH: Boynton/Cook (Heinemann), 2004. v-x.

"Generally, revision has been understood not as a step in which the author corrects errors, but as a process of discovering what one has to say and adapting the text to maximize the clarity of the message."

Source: Pritchard, Ruie J. and Ronald Honeycutt. "The Process Approach to Writing Instruction: Examining its Effectiveness." Handbook of Writing Research. Edited by Charles A. MacArthur, Steve Graham, and Jill Fitzgerald. New York: Guilford, 2005.

Providing Feedback on Writing
(Guidelines for Quality Feedback)

Guideline	Poor practice/Example(s)	Best practice/Example(s)
1) Align comments to the expectations of the rubric.	• Feedback touches on aspects of writing not addressed in the task or rubric.	• Feedback matches aspect of writing or expectation addressed in the task or rubric.
2) Feedback should be grade appropriate.	• Telling an elementary student to maintain parallel structure (not addressed in CCSS until high school).	• Helping an elementary student form grammatically correct sentences.
3) Be specific.	• "Good job."	• "I like how you used precise words like 'illogical' and 'repetitive' to refute your opponent's argument."
	• "Awkward."	• "The construction of this sentence makes your point unclear – think about your verb placement."
	• "Need more explanation."	• "Your point about the author's tone in paragraph three is undeveloped."
4) Emphasize content.	• Comments focus predominantly on conventions (grammar, usage, formatting).	• Comments focus on the quality of the student's ideas and his/her ability to develop, organize, and effectively communicate those ideas.
5) Balance feedback between positive reinforcement and suggestions for improvement.	• Provide exclusively negative comments for a bad paper or exclusively positive comments for a great paper.	• A seed of promise can be found in the worst essay; even the best writers have room to improve.
6) Don't give it all away.	• "You need a semicolon here because this sentence has two independent clauses."	• "What would be a more appropriate punctuation mark for this type of sentence?"

Accountable Talk® Features and Indicators

Accountability to the Learning Community

- Active participation in classroom talk
- Listen attentively
- Elaborate and build on each other's ideas
- Work to clarify or expand a proposition

Accountability to Knowledge

- Specific and accurate knowledge
- Appropriate evidence for claims and arguments
- Commitment to getting it right

Accountability to Rigorous Thinking

- Synthesize several sources of information
- Construct explanations and test understanding of concepts
- Formulate conjectures and hypotheses
- Employ generally accepted standards of reasoning
- Challenge the quality of evidence and reasoning

Accountable Talk® Moves

Talk Move	Function	Example
To Ensure Purposeful, Coherent, and Productive Group Discussion		
Marking	Direct attention to the value and importance of a student's contribution.	That's an important point.
Challenging	Redirect a question back to the students or use students' contributions as a source for further challenge or query.	Let me challenge you: Is that always true?
Revoicing	Align a student's explanation with content or connect two or more contributions with the goal of advancing the discussion of the content.	S: 4 + 4 + 4. You said three groups of four.
Recapping	Make public in a concise, coherent form, the group's achievement at creating a shared understanding of the phenomenon under discussion.	Let me put these ideas all together. What have we discovered?

Resource

Accountable Talk® Moves and Functions

Teacher Move	Function	An Example
To ensure purposeful, coherent, and productive group discussion		
1. Marking	Direct attention to the value and importance of a student's contribution.	"I hear you saying _____. Let's keep this idea in mind."
2. Challenging students	Redirect a question back to the students or use student's contributions as a source for a further challenge or inquiry.	"What do YOU think?" "What surprised you about what you just heard about the text's _____?"
3. Modeling	Make one's thinking public and demonstrate a total performance in order to help learners understand the essence of the activity and to develop a mental picture of what the real thing looks like.	"Here's what good readers do…"
To support accountability to accurate knowledge		
4. Pressing for accuracy	Hold students accountable for the accuracy, credibility, and clarity of their contributions.	"Where can we find that…?" "What is your basis for that conclusion?" "Who said that?"
5. Building on prior knowledge	Tie a current contribution back to knowledge accumulated by the class at a previous time.	"How does this connect…?" How do we define _____ in this context?" "What else comes to mind given our discussion about _____?"
To support accountability to rigorous thinking		
6. Pressing for reasoning	Elicit evidence and establish what contribution a student's utterance is intended to make within the group's larger enterprise.	"Why do you think that…?" What evidence from the text supports your claim? How does this idea contrast with _____?"
7. Expanding reasoning	Open up extra time and space in the conversation for student reasoning.	"Take your time… say more." "Given what we just read and discussed, what would you now say about _____?"
8. Recapping	Make public in a concise, coherent way, the group's developed, shared understanding of the content or text under discussion.	"What have we discovered?" So far, we have discussed the following …What else do we need to address?"
To support accountability to the learning community		
9. Keeping the channels open	Ensure that students can hear each other, and remind them that they must hear what others have said.	"Please say back what _____ just said."
10. Keeping everyone together	Ensure that everyone not only heard, but also understood what a speaker said.	"Do you agree or disagree with what _____ just said? Explain your thinking."
11. Linking contributions	Make explicit the relationship between a new contribution and what has gone before.	"Who wants to add on to …? "What do you notice is missing?"
12. Verifying and clarifying	Revoice a student's contribution, thereby helping both speakers and listeners to engage more profitably in the conversation.	"So, are you saying…?"

Peer Review Sample Exercise

Name of reviewer: _____

Author's name: _____

Instructions:

1) Read your partner's paper, writing in marginal comments and questions and making proofreading marks if you wish

2) At the end of your partner's paper, write your partner a brief letter explaining what you liked about the paper and what you think is the main area for improvement

3) Fill out the peer review form below. As you make comments on specific words or sentences, highlight those parts in the paper so the author can refer back to the places he/she needs to work on the most.

I. Thesis

- Is it Debatable?
- Is it Defensible?
- Is it Specific?
- Does it present an original, compelling, and sophisticated understanding of the text?

II. Introduction/Conclusion

- Does the introduction provide a compelling lead-in to the essay?
- Does the conclusion provide satisfying closure and answer the question "so what"?

III. Body structure and organization:

- Does each body paragraph have or suggest a strong topic sentence?

- Does each topic sentence match the focus of the thesis?
- Is there a body paragraph to correlate with each aspect of thesis?

III. Evidence

- Does the author provide sufficient evidence to back up the thesis?
- Is the evidence provided relevant and accurate?
- Are individual paragraphs built around multiple pieces of evidence?

IV. Analysis:

- Is the evidence analyzed or elaborated upon sufficiently?
- Is the analysis grounded *closely* in the language and details of the text?
- Does the analysis match the focus of the thesis and topic sentence?

VI. Miscellaneous:

- Does the author transition smoothly between paragraphs?
- Are there any points in the essay where the meaning is unclear?
- Do mechanical errors obstruct meaning in any way?

Writing Survey Questions

1. How often is the following statement true for you? I like to write.
A. Almost always
B. More than half the time
C. About half the time
D. Less than half the time
E. Rarely or never

2. What kinds of grades do you typically receive on writing assignments for your class?
A. Mostly A's
B. Mostly B's
C. Mostly C's
D. Mostly D's or below

3. How often do you write in subjects other than Language Arts or English?
A. Almost every day
B. Once or twice per week
C. Once or twice per month
D. Rarely
E. Never

4. How often do you work in pairs or small groups to discuss each others' writing?
A. Almost every day
B. Once or twice per week
C. Once or twice per month
D. Rarely or never

5. How frequently do you make notes or an outline before you begin writing a paper?
A. Almost always
B. More than half the time
C. About half the time
D. Less than half the time
E. Rarely or never

6. How often do you use a computer to aid in your writing assignments?
A. Weekly
B. Monthly
C. Rarely
D. Never

7. How often do you use the computer (at school) to write in a log or journal?
A. Almost every day
B. Once or twice per week
C. Once or twice per month
D. Never or hardly ever

8. How often do you use the computer (at school) to develop a story or report?
A. Almost every day
B. Once or twice per week
C. Once or twice per month
D. Never or hardly ever

9. How often do you use a computer to make changes to the paper or report (for example, spell-check, or cut and paste)?
A. Almost always
B. Sometimes
C. Never or hardly ever

10. If you could choose, how would you take the TCAP Writing Test?
A. Write your paper with a pen or pencil
B. Type your paper at a computer

State-level Writing Practices

To better understand writing instruction in Tennessee, we examined student responses to survey questions administered with the 2013 Writing Assessment. The questions asked about writing practices and practice using computers for writing. We also looked at 2012-13 school-level technology survey data to determine computer resources available to educators and students.

Students responded to 10 questions about their writing instruction and writing practice. The survey questions included in this research are listed below:

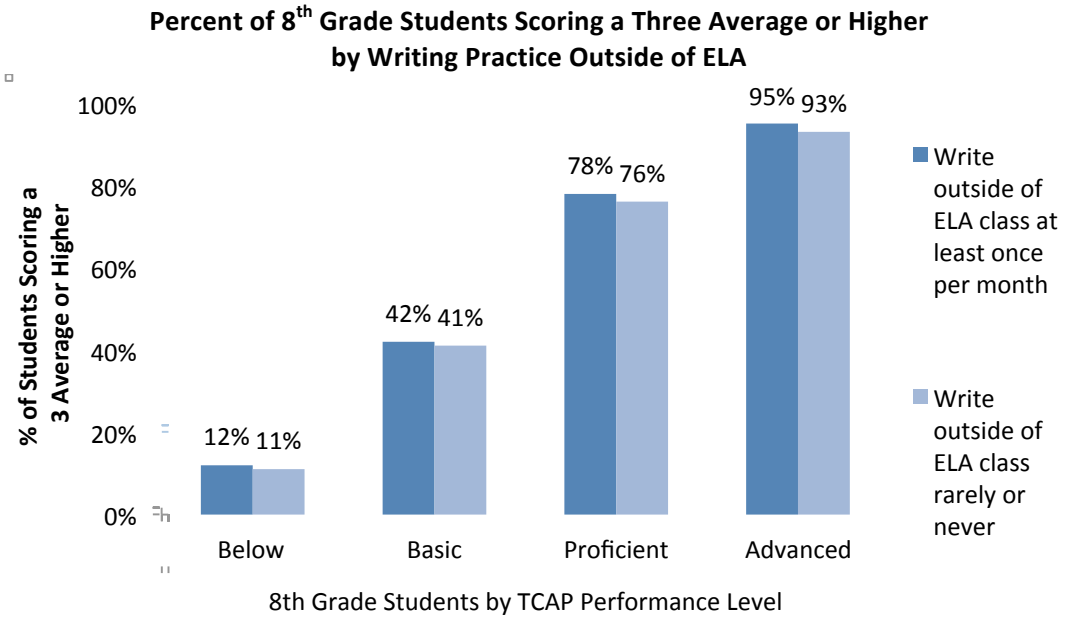
1. How often do you write in subjects other than Language Arts or English?
2. How often do you work in pairs or small groups to discuss each other's writing?
3. How frequently do you make notes or an outline before you begin writing a paper?
4. How often do you use a computer to aid in your writing assignments?

The first three questions were selected based on research that identifies writing across content, discussing writing with peers, and making notes or an outline before writing as key writing practices. The fourth question was included given the importance of computer literacy for college and career readiness and the move to online testing. For the 2013 Writing Assessment, 88 percent of eleventh graders, 86 percent of eighth graders, and 12 percent of fifth graders took the test online.

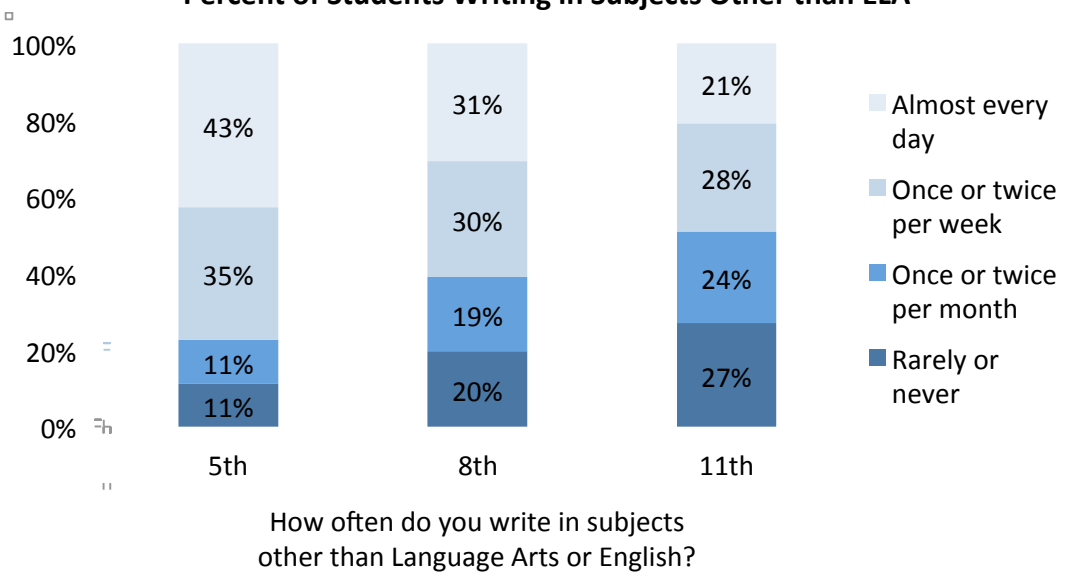
State-level findings show that students who reported more frequently (a) writing in non-ELA courses, (b) working with peers to discuss writing, and (c) making notes or an outline before writing had higher Writing Assessment scores. The survey data also reveal that while some students in Tennessee are engaging in these practices, many others are not. Findings also show economically disadvantaged students reported significantly less practice using computers for writing, although they have slightly more computers per student in their schools.

Writing Practice Outside of English/Language Arts Classes

- Students who reported more frequent writing practice outside of their English/Language Arts classes received higher scores on the 2013 Writing Assessment compared to their peers with similar TCAP scores. The graph below includes 8th grade students, but the same trend was seen for students in grades 5 and 11 (see Appendix).

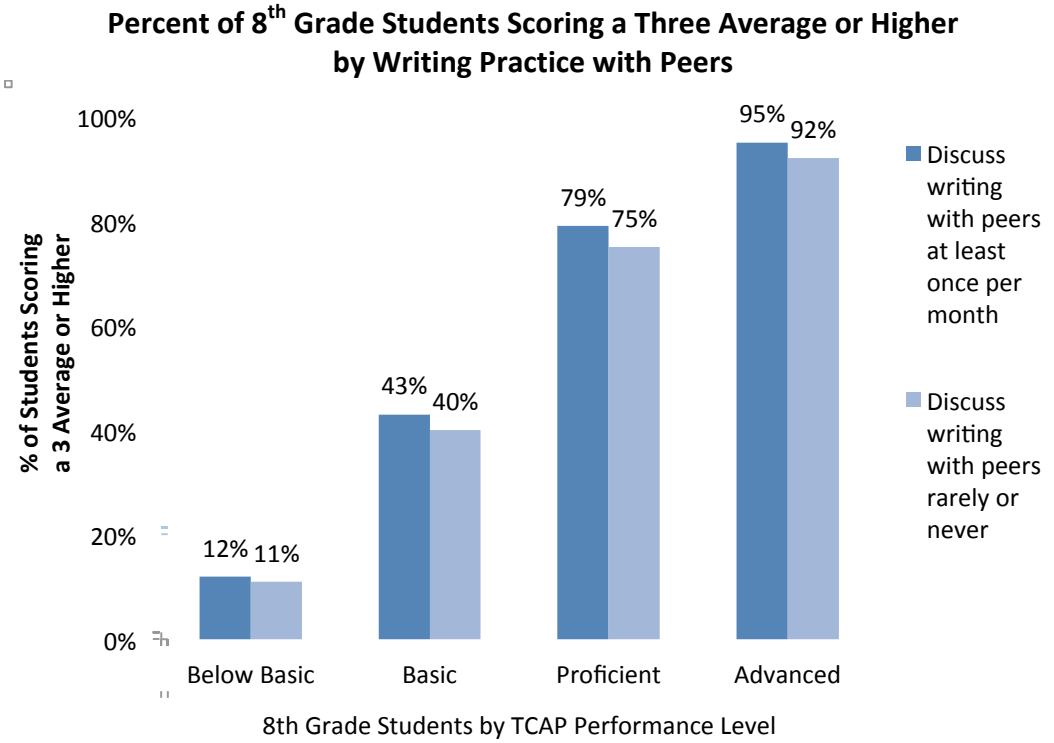


- About half or more of the students in each grade reported writing in subjects other than ELA at least once or twice per week. About one-third of 11th graders reported rarely or never writing in subjects other than ELA.

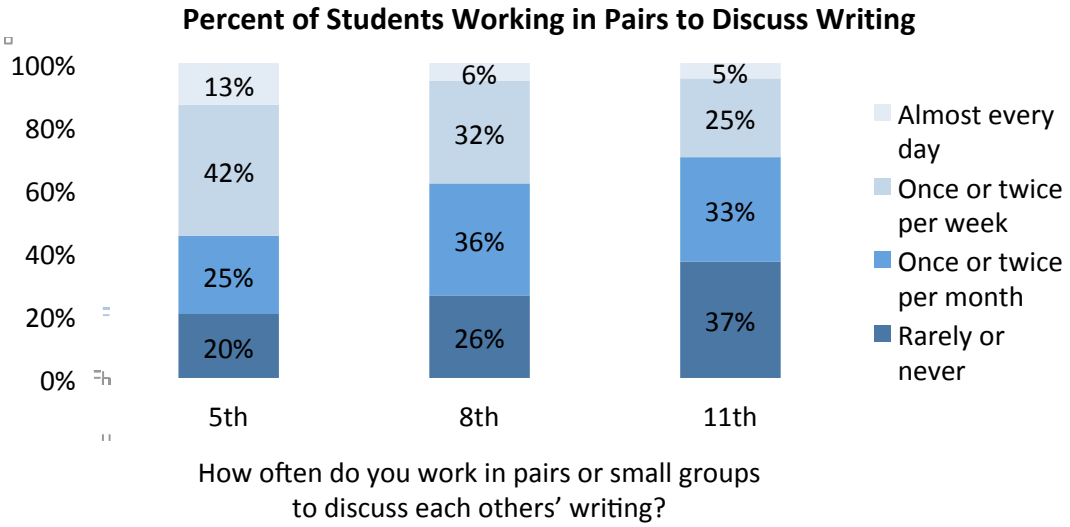


Writing Practice with Peers

- Students who reported more frequently working with peers to discuss their writing received higher scores on the 2013 Writing Assessment compared to their peers with similar TCAP scores. The graph below includes 8th grade students, but the same trend was seen for students in grades 5 and 11.

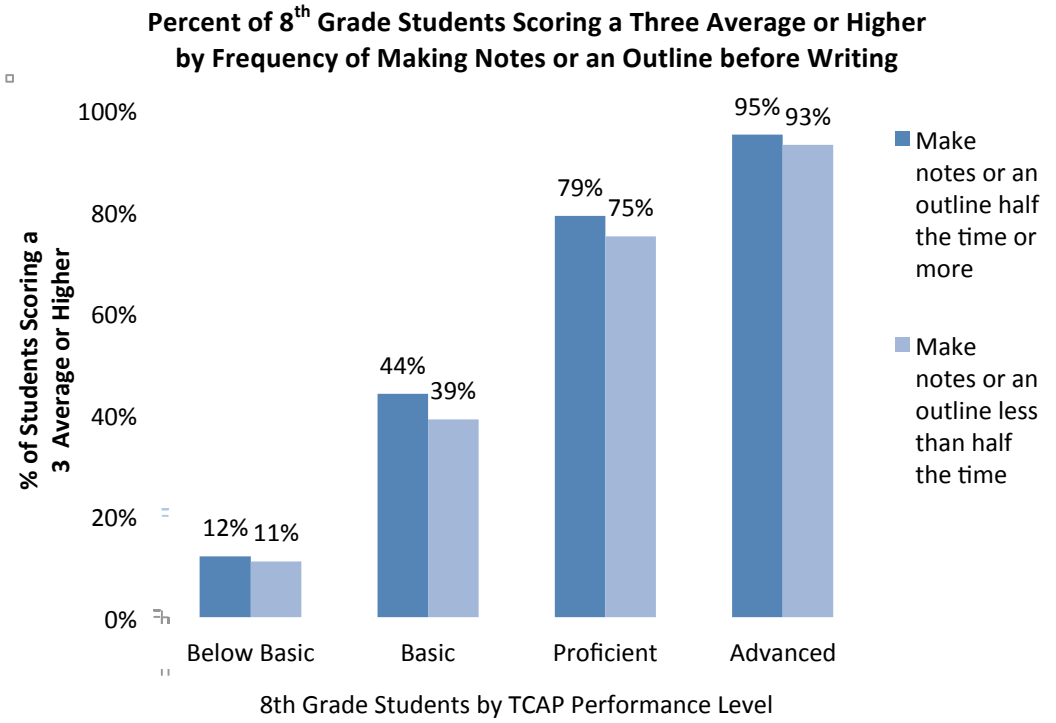


- Over half of the students in grade 5 and about one-third of students in grades 8 and 11 reported working in pairs to discuss writing at least once or twice per week. Twenty percent or more of students in each grade reported rarely or never doing so.

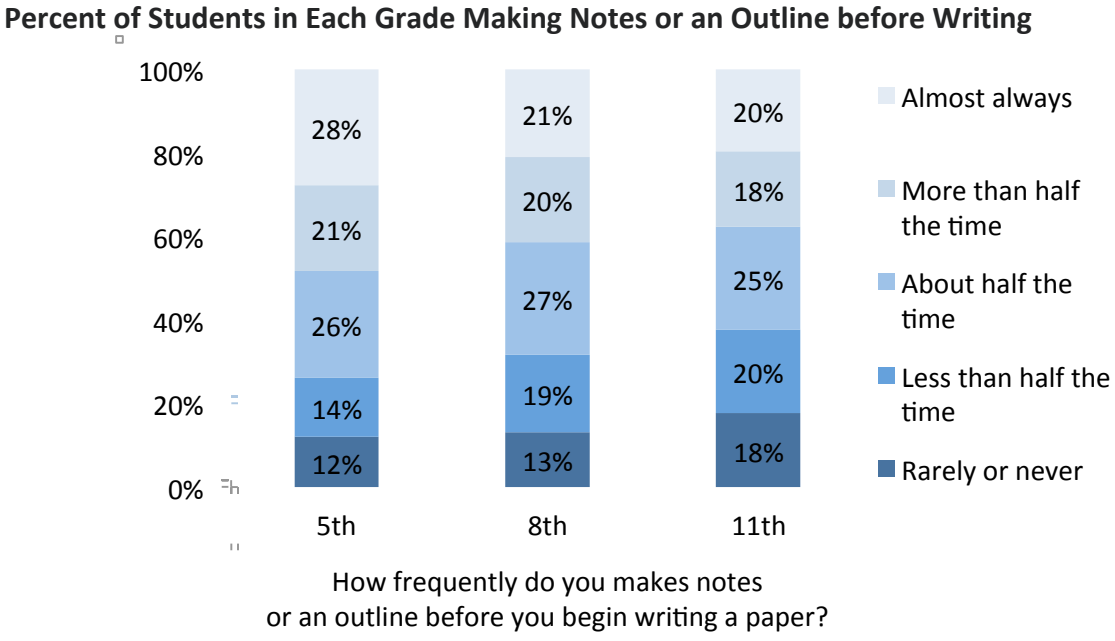


Making Notes or an Outline before Writing

- Students who reported more frequently making notes or an outline before writing received higher scores on the 2013 Writing Assessment compared to their peers with similar TCAP scores. The graph below includes 8th grade students, but the same trend was seen for students in grades 5 and 11.

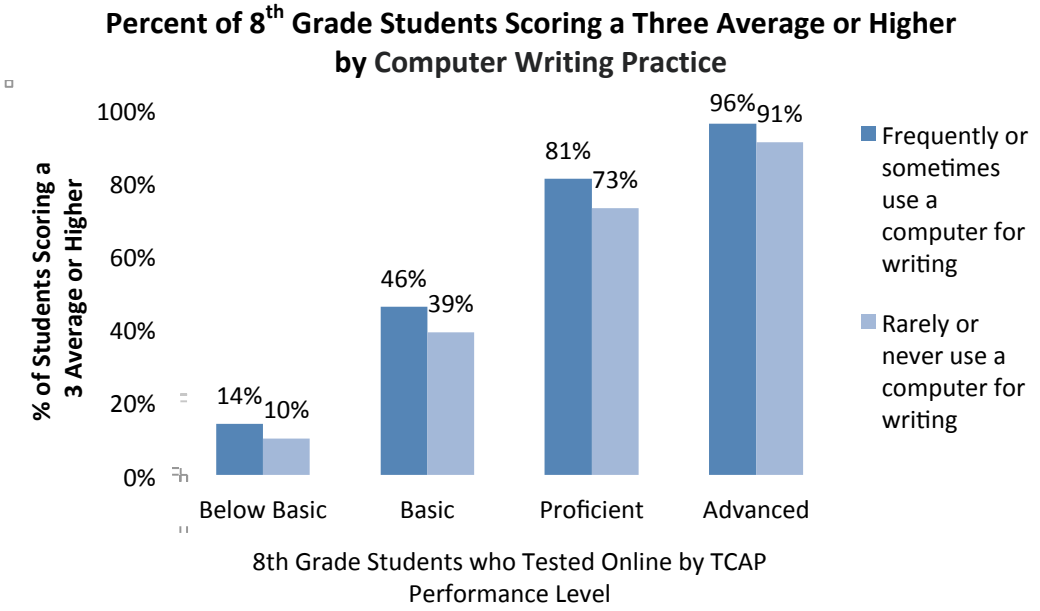


- Less than one-third of students from each grade level reported almost always making notes or an outline before writing.

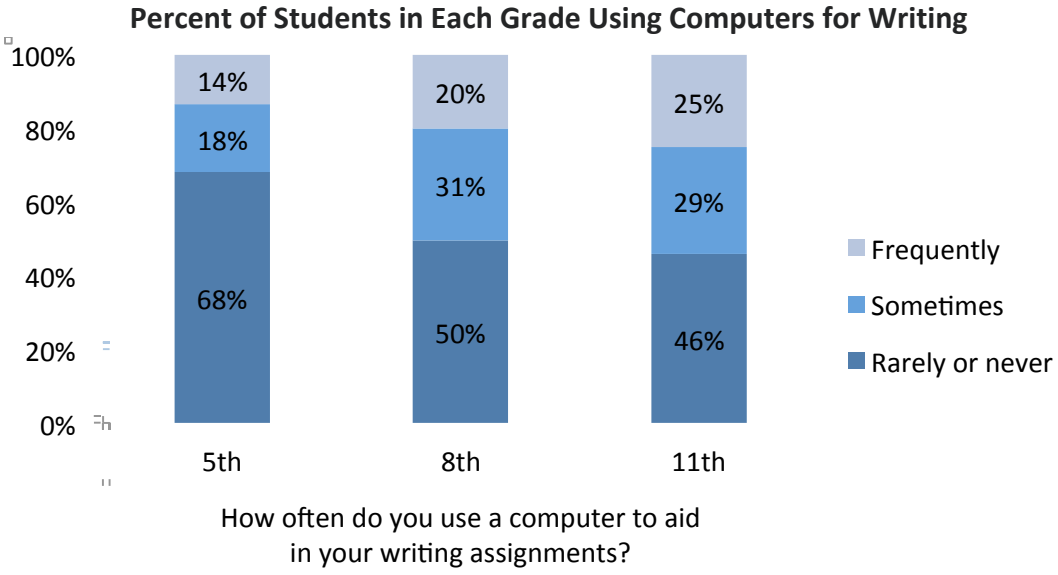


Computer Writing Practice

- When taking the 2013 Writing Assessment online, students who reported frequently or sometimes using computers for writing assignments received higher scores compared to their peers with similar TCAP scores. The graph below includes 8th grade students, but the same trend was seen for students in grades 5 and 11.

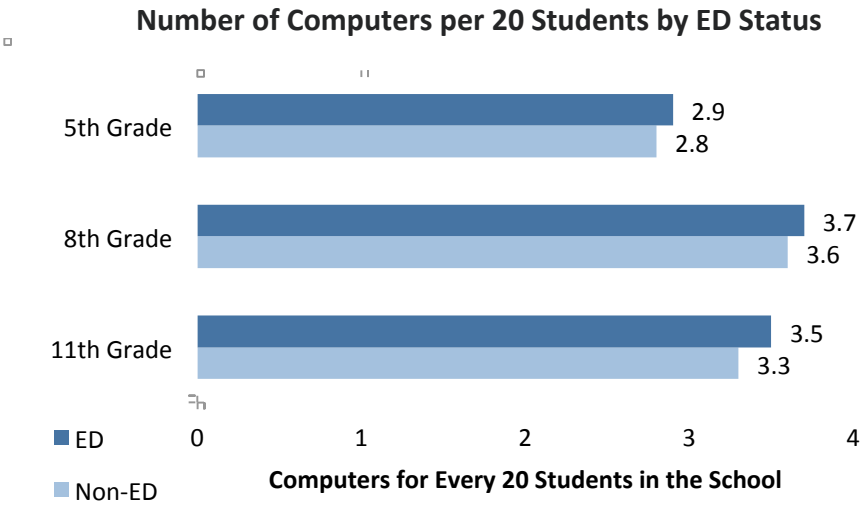


- About half of students or more in grades 5, 8, and 11 reported rarely or never using computers for writing assignments. Older students reported more frequent use of computers for writing assignments. The survey question did not specify whether this computer use was occurring at home or school; therefore, it is difficult to determine where this practice is occurring.

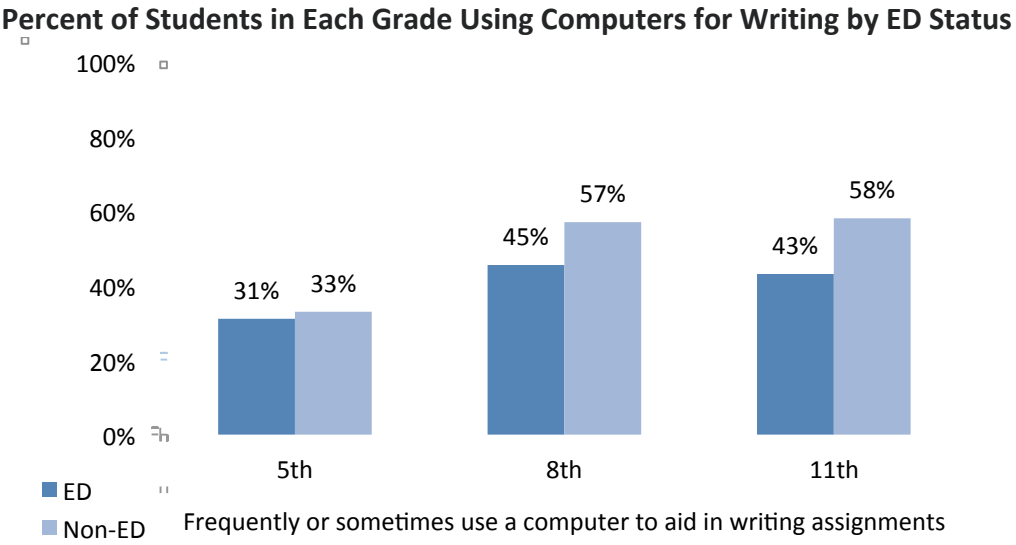


Differences in Technology Resources and Computer Writing Practice by Economically Disadvantaged (ED) Status

- On average, ED students had slightly more computers per student in their schools than non-ED students.



- However, ED students reported significantly less practice using computers for writing.

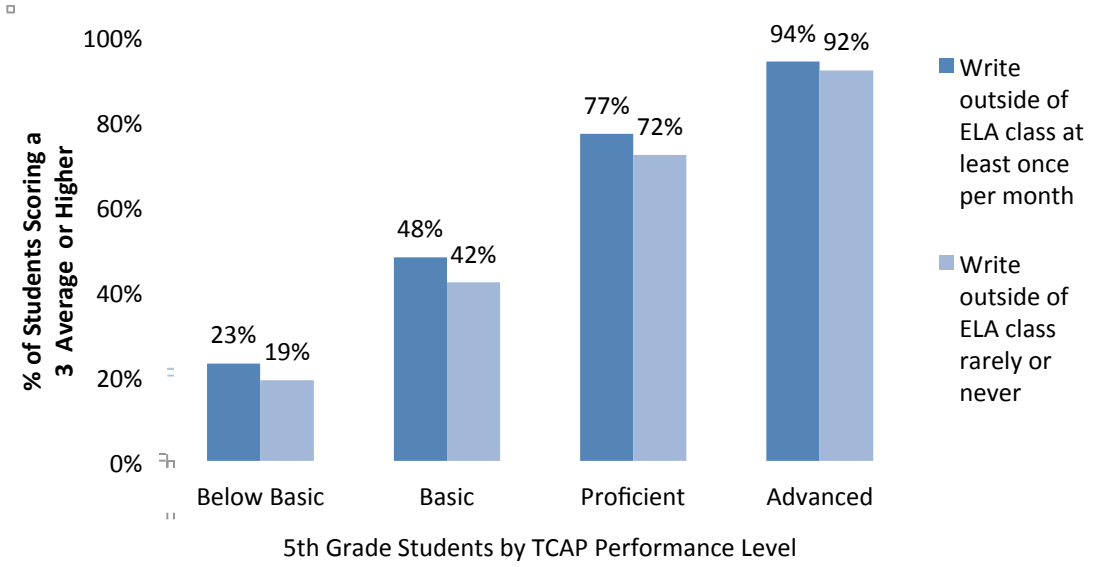


- ED and non-ED students gave similar responses regarding frequency of writing practice outside of ELA classes, writing practice with peers, and making notes or an outline before writing (not shown).

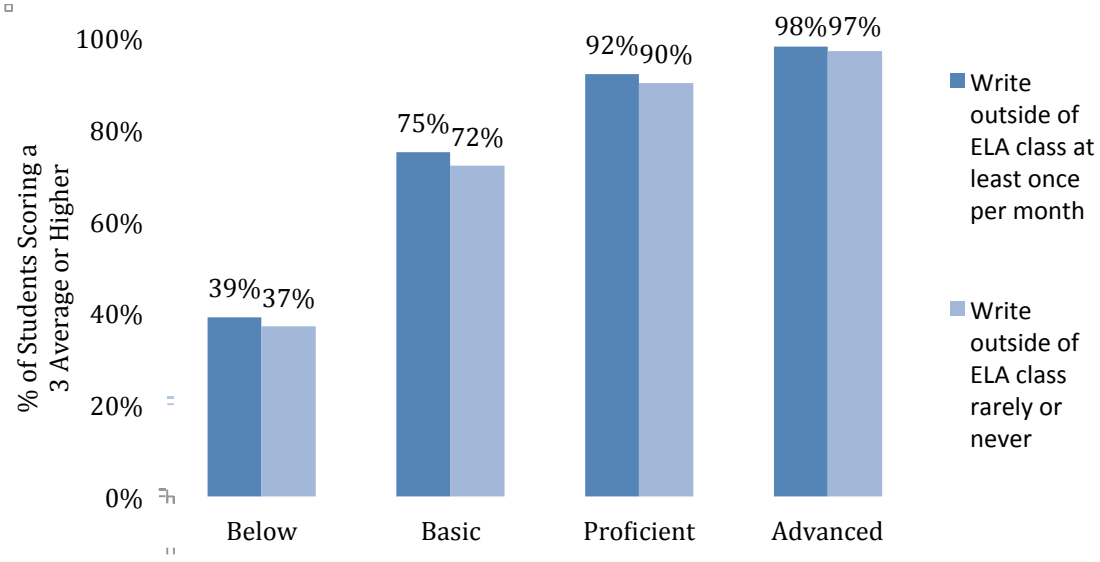
Writing Practice Outside of English/Language Arts Classes

Percent of 5th Grade Students Scoring a Three Average or Higher

by Writing Practice Outside of ELA

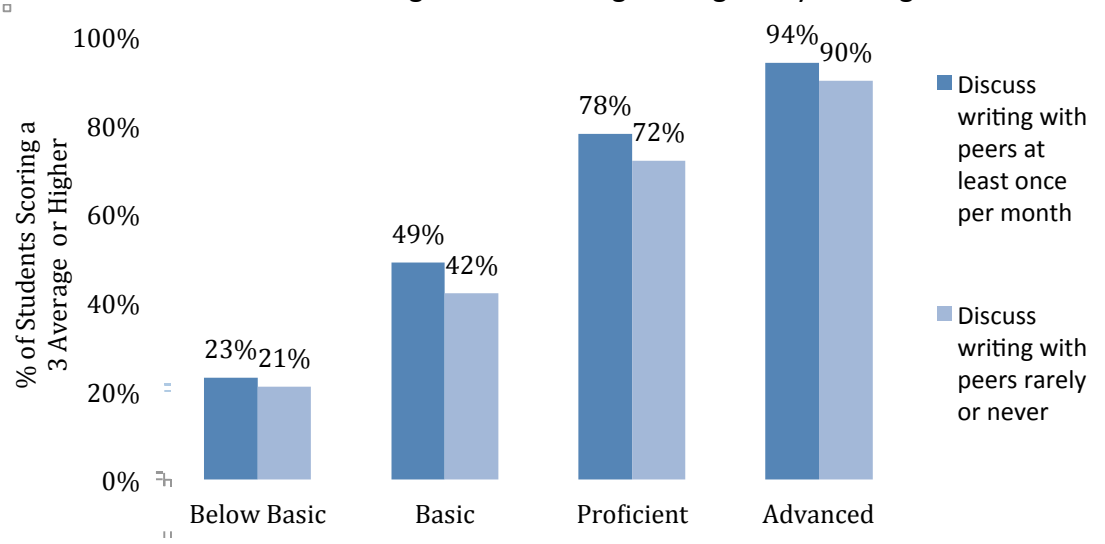


Percent of 11th Grade Students Scoring a Three Average or Higher by Writing Practice Outside of ELA



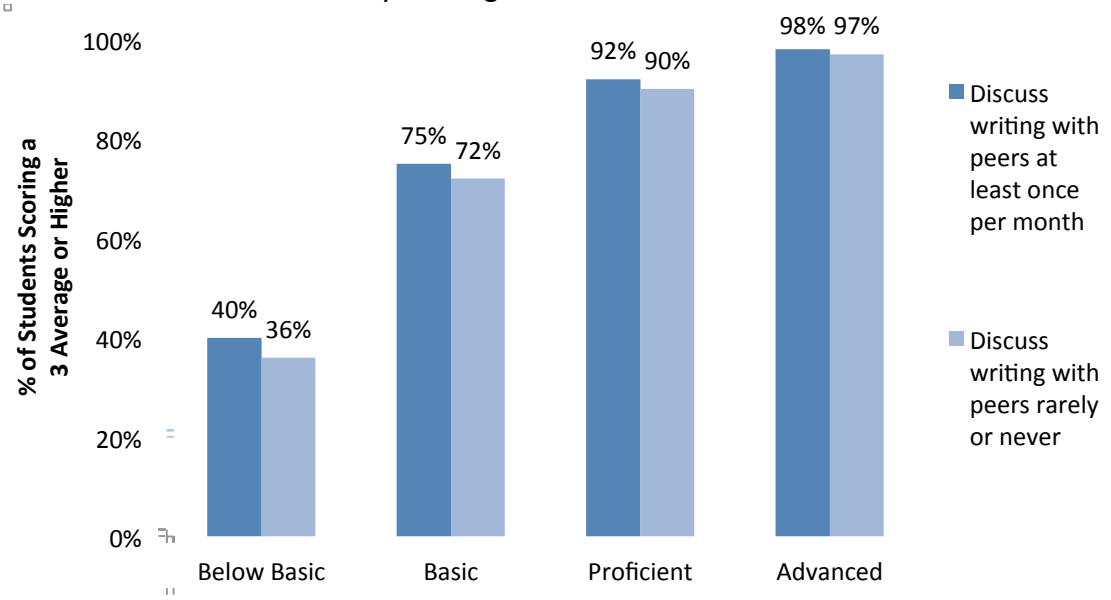
Writing Practice with Peers

Percent of 5th Grade Students Scoring a Three Average or Higher by Writing Practice with Peers



5th Grade Students by TCAP Performance Level

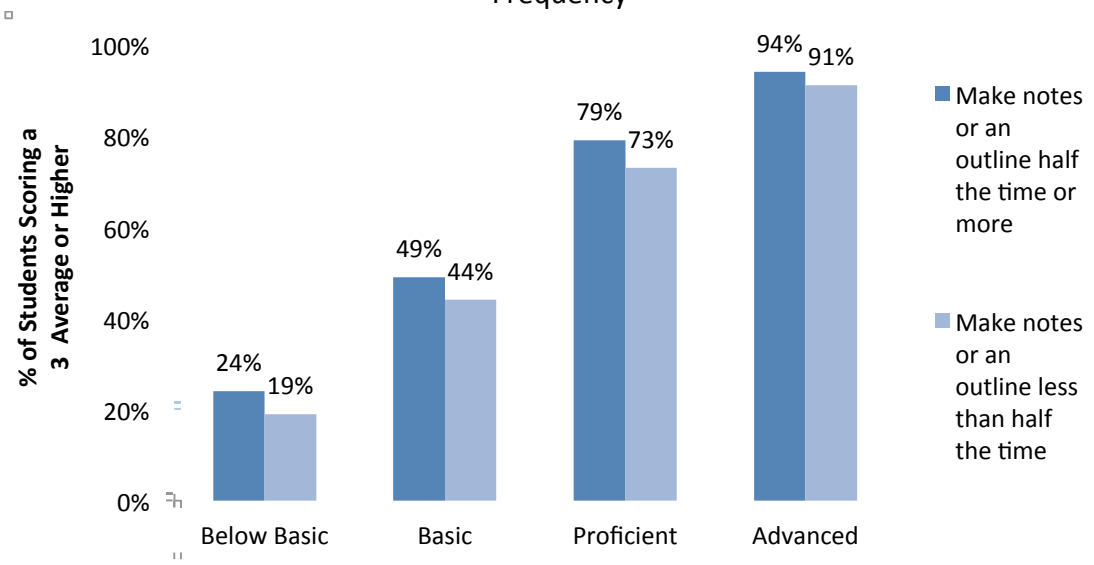
Percent of 11th Grade Students Scoring a Three Average or Higher by Writing Practice with Peers



11th Grade Students by English III EOC Performance Level

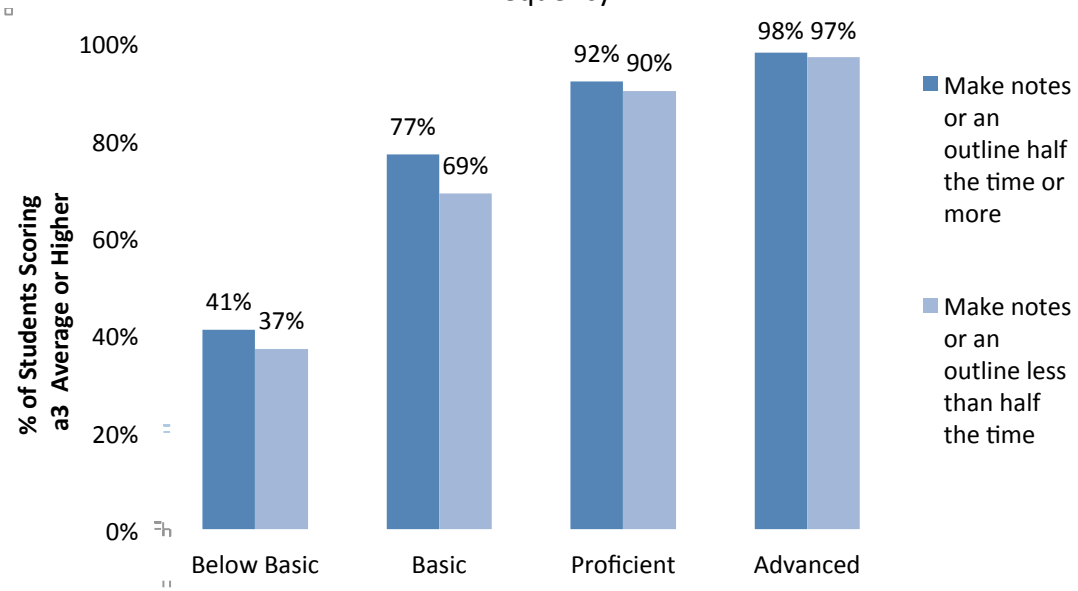
Making Notes or an Outline before Writing

Percent of 5th Grade Students Scoring a Three Average or Higher by Making Notes/Outline Frequency



5th Grade Students by TCAP Performance Level

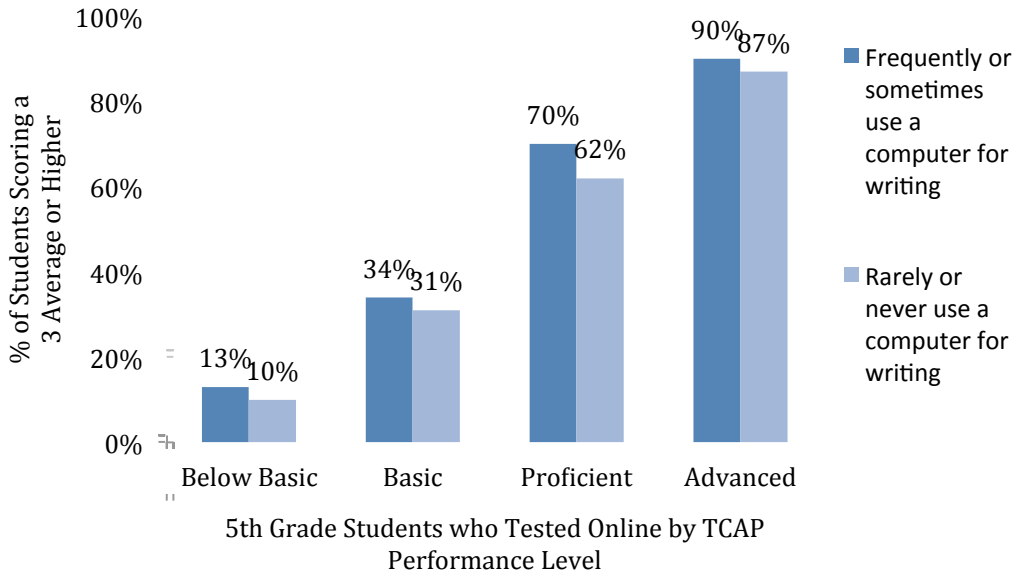
Percent of 11th Grade Students Scoring a Three Average or Higher by Making Notes/Outline Frequency



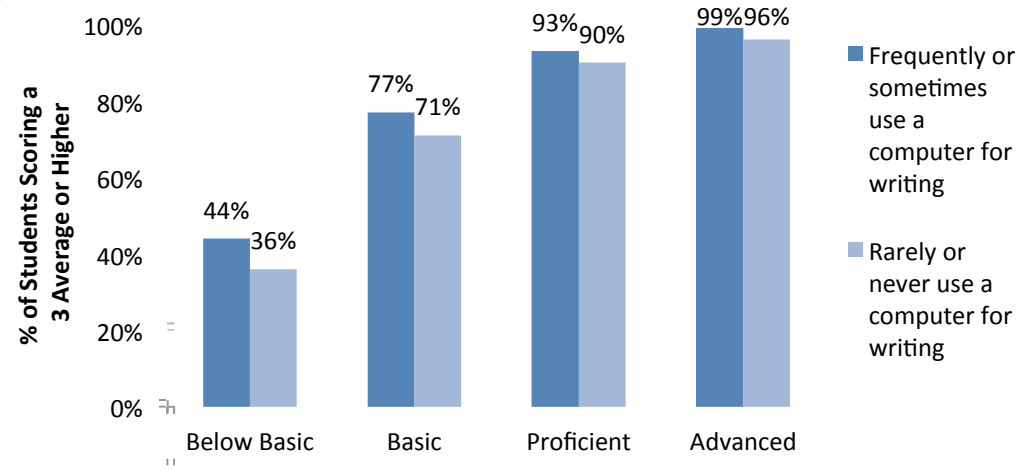
11th Grade Students by English III EOC Performance Level

Computer Writing Practice

Percent of 5th Grade Students Scoring a Three Average or Higher by Computer Writing Practice



Percent of 11th Grade Students Scoring a Three Average or Higher by Computer Writing Practice



TNCore

Curriculum Coverage Guidance in English Language Arts for the 2013-14 School Year

As we move toward full implementation of the Common Core State Standards for English Language Arts, many educators and districts have sought guidance on what content to teach during the 2013-14 school year and how to best prepare students for PARCC while balancing current TCAP accountability.

The Common Core State Standards for ELA provide a framework of expectations; curriculum and instruction will continue to be under the discretion of schools and districts. This document offers guidance to all districts in transitioning to the CCSS. Some districts have chosen to transition fully to the CCSS for ELA, while others combine the CCSS and SPI's. The TDOE encourages districts to make thoughtful decisions around what a successful transition to the CCSS should look like for their respective districts, keeping in mind that a focus on the CCSS will support success on the TCAP as well.

There are three key instructional shifts required to implement the Common Core State Standards for ELA:

1. Building knowledge through content-rich nonfiction
2. Reading, writing, and speaking grounded in evidence from text, both literary and informational
3. Regular practice with complex text and its academic language

Implementing the instructional shifts and focusing on the **following three priorities** will provide students with the best preparation for PARCC assessments in 2014-15 and the TCAP Writing Assessment in 2013-14**:**

- Stop teaching the dropped SPI's
- Prioritize readings of rich, complex text multiple times and for varying purposes
- Give students sequenced, text-dependent questions and writing tasks that require them to cite evidence, simultaneously developing students' reading, writing, speaking, listening, and thinking skills

On the next page, you can find a table offering more specific recommendations/guidance for ELA. Please note that these recommendations provide **minimal** expectations and do not intend to cover the entirety of a CCSS for ELA-aligned curriculum. Fore more information on the concepts and terms mentioned in the tables, see the PARCC Model Content Frameworks**.**

TNCore

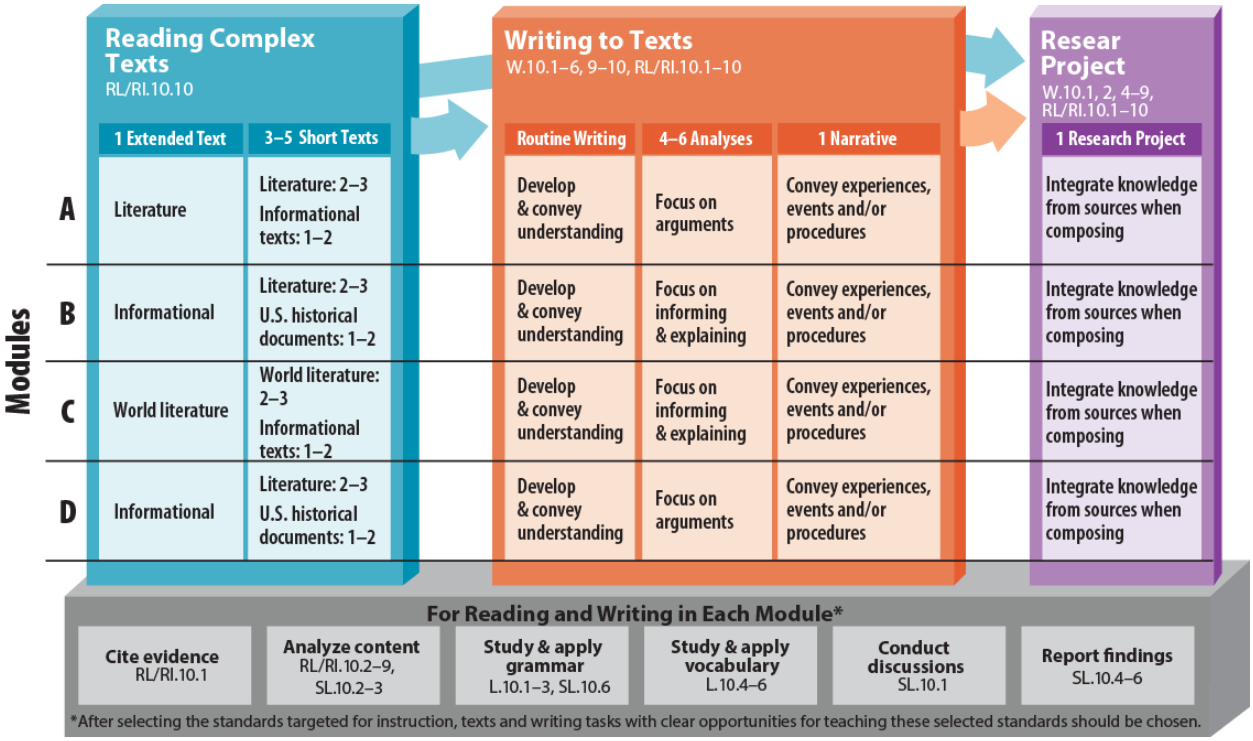
ELA K-12

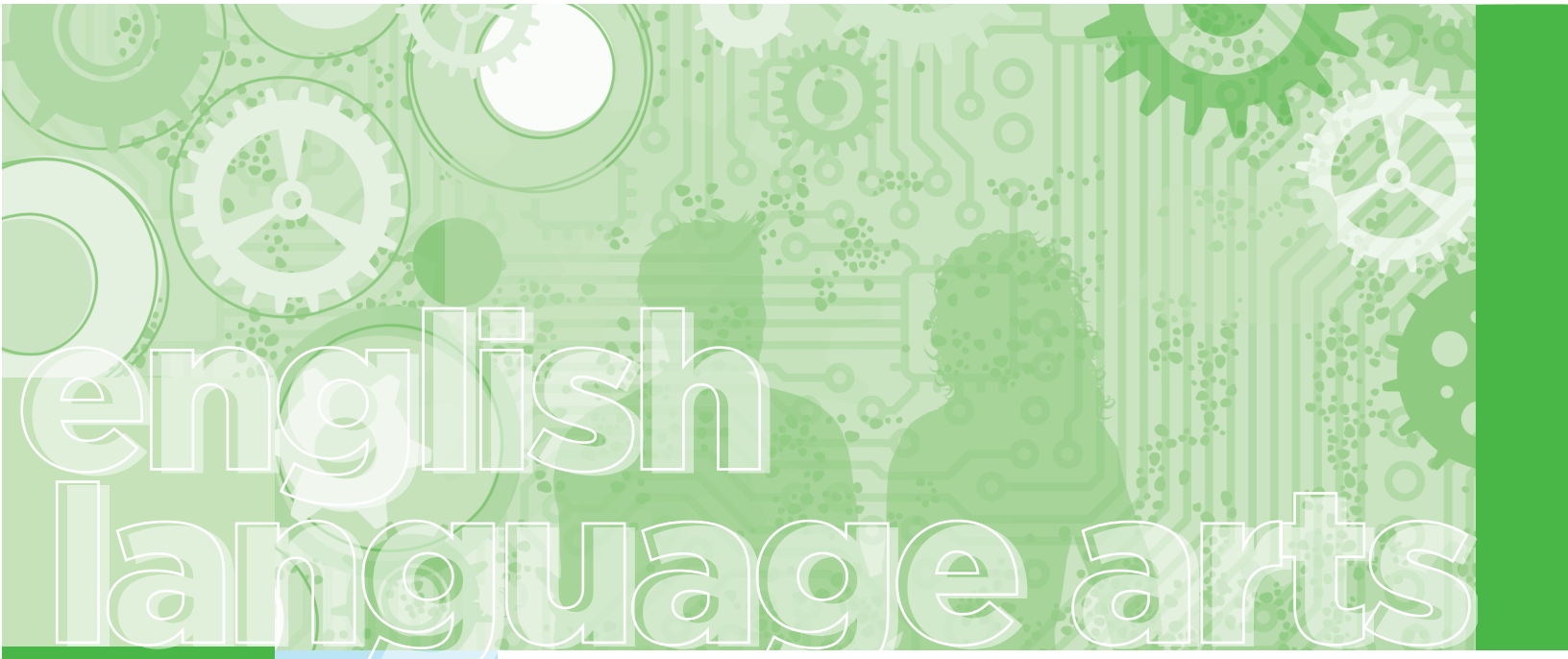
<table>
<tr><th></th><th colspan="2">K-3</th><th>4-5</th><th>6-8</th><th>9-12</th></tr>
<tr><td>Instructional Priorities</td><td colspan="5">• Use PARCC Model Content Frameworks to guide planning
• At least[1]:
○ Daily:
▪ Read complex text as defined by the CCSS grade bands
▪ Discuss text/evidence-based questions, with a focus on academic (Tier II) vocabulary
○ Several times per week: routine/on-demand informal writing in response to text-based questions
○ Twice a month: Analytical formal writing with teacher feedback in response to text-based prompt
○ Four times per course (may vary depending on type of schedule): Conduct research project; present findings in a variety of written, oral, and multimedia formats</td></tr>
<tr><td>Reading Foundations</td><td colspan="2">• Explicit, systematic instruction of foundational reading skills based on learning needs</td><td colspan="3">N/A</td></tr>
<tr><td>Text Types[2]</td><td colspan="2">Balance:
• 50% informational
• 50% literary
Emphasis on content-rich nonfiction that coherently and systematically builds student knowledge across grades</td><td>Balance:
• 55% informational
• 45% literary
Emphasis on literary nonfiction</td><td colspan="2">Balance:
• 60-70% informational
• 30-40% literary
Emphasis on literary nonfiction (6-12), foundational/seminal US documents (11-12)</td></tr>
<tr><td rowspan="2">Writing</td><td colspan="3">Balance across modes:
• 30% opinion
• 35% informative/explanatory
• 35% narrative</td><td colspan="2">Balance across modes:
• 35-40% argumentative
• 35-40% informative/explanatory
• 20-30% narrative[3]</td></tr>
<tr><td colspan="5">• Emphasis across all modes on using and/or analyzing text/sources
• Focus on effective writing that achieves author's purpose and/or fulfills request of prompt (Anchor Standard for Writing #4: "produce clear and coherent writing" that is "appropriate to task, purpose, and audience") rather than writing to fulfill generic conventions of modes</td></tr>
<tr><td>Response to Instruction and Intervention (RTI[2])</td><td colspan="5">• Within the RTI[2] framework, Tier I is the core curriculum; all students receive research-based, high quality, general education instruction using the Common Core State Standards
• Use Response to Instruction and Intervention (RTI[2]) Initiative to guide time allocation and tiered interventions.</td></tr>
</table>

[1] These activities apply to *all* students, regardless of ability level, disability, or English proficiency. While leveled reading may still occur to build reading engagement, confidence, and stamina, all students must be regularly exposed to complex text. Struggling readers can grapple productively with complex text with increased teacher scaffolding, especially in the area of academic vocabulary.
[2] The percentages on this table reflect the **sum** of student reading across **all courses**, not just reading in ELA classrooms. The numbers are rough guidelines and should not be treated as literal mandates.
[3] The balance of narrative should taper off toward 20% as students approach 12th grade.

ELA Model Content Framework Chart for Grade 10

Below is a chart that organizes the standards into four quarter-length modules that include the knowledge and skills students will learn and apply over the course of the year.[2] As noted in the introduction, these modules are offered as optional models to consider when constructing a year-long course of instruction. The chart is meant to illustrate and provide context for the standards (but not replace engaging with the standards themselves).





Grades
9-10

Introduction

Speeches for Racial Equality: Examining Argument and Methods

Overview

What is this unit about?

This unit uses speeches about racial equality from different leaders across time to support students' study of the methods these speakers use to build and support their own arguments. Through engaging in the unit, students will deepen their understanding of how to read, write about, and analyze informational texts, focusing on authors' methods. Students will also deepen their understanding of effective summaries and arguments about informational texts.

In this unit, students will read, write about, and discuss informational texts to deepen their understanding of the following big questions:

- How do leaders across time imagine solutions to reach racial equality?
- What methods do these speakers use to build their arguments?

As part of the culminating assessment task, students will write an essay to argue for which speaker makes the strongest argument to promote racial equality. Students will be expected to develop their argument with claims and counterclaims that are grounded in evidence from across the unit texts.

What content will students learn?

Students will expand their knowledge base about:

- speeches about racial equality.
- how authors use methods (e.g., metaphor, repetition, allusion) to support their argument.
- how to identify and explain the relationship between claims and counterclaims.
- characteristics of effective summaries.
- characteristics of effective arguments.

How will students develop their skills and habits of reading, writing, and speaking?

The unit provides instructional resources and questions that guide an inquiry approach to teaching. Students engage as problem-solvers and sense-makers as they think, talk, and write about the texts they read in the unit.

Each task students are asked to engage in includes an inquiry for them to answer and/or pursue. Students are supported to develop skills and habits such as how to:

- comprehend complex informational texts with assistance and independently.
- develop, support, and defend text-based interpretations and arguments.
- analyze informational texts to identify authors' methods and explain how those methods contribute to the authors' argument, taking into consideration purpose and audience.
- compare texts.
- read and take notes from texts.
- participate in routines such as maintaining a Reader/Writer Notebook, completing Quick Writes, pair/trio sharing of textual evidence, and whole group discussions on a text's ideas and interpretations of texts.
- value effort as a way to get smarter about reading, writing, listening, speaking and research.

What is the unit outline?

On the next page, you'll find the unit outline. This unit outline provides a one-page snapshot of the major work that students will engage in over the course of this unit. The outline shows *what* students will do, while the pages that follow the outline show *how* students will engage in that work.

The unit outline lists the unit's overarching questions, texts, tasks, and culminating assessment. The unit outline is meant to be read horizontally and vertically. The horizontal work represents the work that students do across texts. For example, the overarching questions reach across all the texts in the unit and students are asked to engage with work that will deepen their understanding of these questions with all the texts in the unit.

The vertical work shows the tasks or questions that students will engage in with a single text or across two texts. As you read, notice how the tasks in the vertical rows are designed to build on each other and engage students in evolving, challenging work. Notice too how the tasks are designed to give students multiple opportunities with each text to engage in key tasks aligned to the CCSS.

Each unit task on the unit outline is represented by a question or set of questions preceded by two numbers. The first number references a unit text and the second number references the task number for that text. For instance, Task 1.2 uses Text 1, "I Have a Dream," and is the second task for this text.

Unit Outline

Overarching Questions

- How do three different leaders across time imagine solutions to reach racial equality?
- What methods do these speakers use to build and support their arguments?

OPTIONAL TEXT **"Ain't I a Woman?"** *by Sojourner Truth* *May 1851*	TEXT 1 **"I Have a Dream"** *by Martin Luther King, Jr.* *August 28, 1963*	TEXT 2 **"Remarks to the Convocation of the Church of God in Christ"** *by William Jefferson Clinton* *November 13, 1993*	TEXT 3 **"Ending Racial Inequality"** *by George W. Bush* *NAACP Annual Convention* *July 10, 2000*	TEXT 4 **"Remarks to the NAACP"** *by President Barack Obama* *July 17, 2009*
0.1 Comprehension What is this speech about? Who is Sojourner Truth? What do you know about her? 0.2 Significance Identify a moment that strikes you as significant to Truth's argument. Explain why you consider this moment to be significant. 0.3 Interpretation Why does Truth keep repeating the phrase, "and ain't I a woman?" 0.4 Author's Methods What methods does Truth use to build and support her argument? 0.5 Structure How does Truth structure her speech? How does each section advance her argument?	1.1 Prior Knowledge and Background Who is Martin Luther King, Jr.? What do you know about him? What do you know about his famous speech, "I Have a Dream"? 1.2 Comprehension What is King's argument? Who is his audience? What does he want his audience to do? 1.3 Structure How does King organize his speech? How does each section advance his argument? 1.4 Author's Methods—Metaphor Identify the metaphors that you find most compelling to King's argument. Explain each metaphor and what you find most compelling about it given his argument, purpose, and audience. 1.5 Author's Methods—Allusion King makes several allusions in this speech. Research one and explain its role in his argument. 1.6 Author's Methods—Repetition Study King's use of repetition. What does he repeat and for what purposes? How does his use of repetition link to and advance his argument?	2.1 Comprehension Write a summary of Clinton's speech. Include his argument, the specific claims and counterclaims he makes, who his audience is, and what he wants them to do. 2.2 Relationship Among Ideas Identify and explain the claims you find most significant to Clinton's argument. How does he support each claim? What is the relationship among the claims and between the claims and counterclaims? 2.3 Author's Methods What methods does Clinton use to build and support his argument? How does each method advance his argument? 2.4 Drawing an Inference Write an argument using claims and counterclaims that are grounded in evidence from the speech to support what you see as the main goal of his speech. What do you see as the main goal of Clinton's speech?	3.1 Comprehension Write a summary of Bush's speech. Include his argument, the specific claims and counterclaims he makes, who his audience is, and what he wants them to do. 3.2 Structure How does Bush organize his speech? How does each section advance his argument? 3.3 Author's Methods Compare two methods that Bush and another speaker use. Explain how each uses these methods and argue for which you find more effective given the speaker's argument, purpose, and audience. 3.4 Language What is Bush saying and doing in paragraph 5? Imitate Bush's writing by writing a paragraph like this one using your own ideas. 3.5 Comparing Texts Speaking almost 40 years after King, Bush says, "Discrimination is still a reality, even when it takes different forms." Compare the inequities or forms of discrimination that each of the three speakers is speaking about. What evidence does each speaker use to convince his audience of these inequities? How does each speaker use methods to convince his audience 3.6 Comparing Texts King, Clinton, and Bush all argue for ending racial inequality. Compare their solutions and the claims, reasoning, evidence, and methods they use for those solutions.	4.1 Assessment Task 1 Identify and explain the claims you find most significant to Obama's argument. Create a three-column chart. Column 1: State the claim; Column 2: Explain the significance of the claim to Obama's argument; Column 3. Explain how he supports this claim and distinguishes it from one or more counterclaims. 4.2 Assessment Task 2 Write an informative/explanatory essay in which you explain how Obama organizes his speech into sections and explain how each section of his speech advances his argument.

Culminating Assessment

Write an argument in which you argue for which speaker makes the strongest argument to promote racial equality? Develop your argument with claims and counterclaims that are grounded in evidence from across the unit texts.

Common Core State Standards[1] (CCSS)

College and Career Readiness Anchor Standards For:

Reading (p. 35)

1. Read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text.
2. Determine central ideas or themes of a text and analyze their development; summarize the key supporting details and ideas.
3. Analyze how and why individuals, events, and ideas develop and interact over the course of a text.
4. Interpret words and phrases as they are used in a text, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
5. Analyze the structure of texts, including how specific sentences, paragraphs, and larger portions of the text (e.g., a section, chapter, scene, or stanza) relate to each other and the whole.
6. Assess how point of view or purpose shapes the content and style of a text.
8. Delineate and evaluate the argument and specific claims in a text, including the validity of the reasoning as well as the relevance and sufficiency of the evidence.
9. Analyze how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
10. Read and comprehend complex literary and informational texts independently and proficiently.

Writing (p. 41)

1. Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.
2. Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
4. Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
5. Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach.
6. Use technology, including the Internet, to produce and publish writing and to interact and collaborate with others.
9. Draw evidence from literary or informational texts to support analysis, reflection, and research.
10. Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

1 Council of Chief State School Officers (CCSSO) & National Governors Association Center for Best Practices (NGA Center). (2012). *Common core state standards for English language arts & literacy in history/social studies, science and technical subjects.* (pp. 35, 38, 41, 45-48, 50-51, 54-55). Retrieved from http://www.corestandards.org/assets/CCSSI_ELA%20Standards.pdf

Speaking and Listening (p. 48)

1. Prepare for and participate effectively in a range of conversations and collaborations with diverse partners, building on others' ideas and expressing their own clearly and persuasively.
4. Present information, findings, and supporting evidence such that listeners can follow the line of reasoning and the organization, development, and style are appropriate to task, purpose, and audience.

Language (p. 51)

1. Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.
2. Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.
4. Determine or clarify the meaning of unknown and multiple-meaning words and phrases by using context clues, analyzing meaningful word parts, and consulting general and specialized reference materials, as appropriate.

Notes

- The grade-level standards that are addressed are provided at the end of each task.
- For standards where there is partial alignment, the underlined words and phrases indicate the part of the standard to which the task is aligned.
- Standards that are aligned only to the differentiated options are indicated in the callout boxes for each option.

TASK 3.5

Comparing Texts

"I Have a Dream" by Martin Luther King, Jr.
"Remarks to the Convocation of the Church of God in Christ" by William Jefferson Clinton
"Ending Racial Inequality" by George W. Bush

Speaking almost 40 years after King, Bush says, "Discrimination is still a reality, even when it takes different forms." Compare the inequities or forms of discrimination that each of the three speakers is speaking about.

- *What evidence does each speaker use to convince his audience of these inequities?*
- *How does each speaker use methods to convince his audience?*

Materials

- "I Have a Dream" by Martin Luther King, Jr.
- "Remarks to the Convocation of the Church of God in Christ" by William Jefferson Clinton
- "Ending Racial Inequality" by George W. Bush
- Chart: Inequities Described in King's Speech
- Materials for student presentations
- Reader/Writer Notebook
- Chart paper and markers

Teaching Approach

Pair Work

Students work in pairs. Each pair chooses to work with King's, Clinton's, or Bush's speech. Students list the inequities each speaker is speaking about. For each inequity, students take notes on the evidence and methods the speaker uses to convince his audience these inequities exist.

Pair Work

Ask students to get together with a partner that chose the same speech. Students share their notes. Pairs create a two-minute presentation with a visual to share their notes with the whole class.

Teaching Option – Charting and Analysis: If students need additional support, have them review King's speech to list the inequities or forms of discrimination he is speaking about. Record these for all to see on a three-column chart like the one below. Title the chart, "Inequities Described in King's Speech." For each inequity, students share the evidence and methods King uses to convince his audience these inequities exist. Add this information to the chart.

Inequities Described in King's Speech		
Inequities or Forms of Discrimination	Evidence King Uses to Convince His Audience	Methods King Uses to Convince His Audience

Have students work in pairs to analyze either Clinton's or Bush's speech. Pairs create a two-minute presentation with a visual to share their notes with the whole class.

Presentation

Each small group shares its presentation with the class. Listeners take notes on the similarities and differences among the inequities the speakers are speaking about, as well as how the speakers use evidence and methods to convince their audiences that these inequities exist.

Whole Group

Lead a discussion on the similarities and differences among the inequities the speakers are speaking about, as well as how the speakers use evidence and methods to convince their audiences that these inequities exist.

TASK 3.5

Focus Standards (CCSS, 2012, p. 40, 50)

Reading Informational Text

RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly, as well as inferences drawn from the text.

RI.9-10.5 Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

RI.9-10.6 Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.

RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts.

RI.9-10.10 By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction at the high end of the grades 9–10 text complexity band independently and proficiently

Speaking and Listening

SL.9-10.1 Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grades 9-10 topics, texts, and issues, building on others' ideas and expressing their own clearly and persuasively.

SL.9-10.4 Present information, findings, and supporting evidence clearly, concisely, and logically such that listeners can follow the line of reasoning and the organization, development, substance, and style are appropriate to purpose, audience, and task.

Assessment Task 1

TASK 4.1

- *Identify and explain the claims you find most significant to Obama's argument.*

Materials

- "Remarks to the NAACP"[11] by President Barack Obama
- Assessment Task 1
- Copies of students' papers from assessment
- Reader/Writer Notebook
- Chart paper and markers

Teacher Preparation

Be sure to complete the assessment yourself and determine possible answers by identifying several significant claims, explaining their significance to speech's argument, and explaining how each identified claim is supported and distinguished from one or more counterclaims.

[Your responses will provide sample evidence statements that you can use when you are drafting student feedback and scoring papers.]

Teaching Approach

Session 1

Explain that today you will be asking students to read a speech by a United States president as they have done before in the unit. This time, however, as they read the text to identify and explain significant claims in terms of the speech's argument and counterclaims, they will be completing the work individually. Explain that you will be assessing their work based on their identified claims, their explanation of how the claims relate to the speech's argument, and their explanation of how the claims are supported and distinguished from the counterclaims. Allow students to use the posted, co-created charts on characteristics of effective explanations.

Distribute the handout, Assessment Task 1. Read through the directions with students and make sure that they understand how to write their answers on the chart. Since the chart does not provide enough space for full explanations, allow students to create their own chart with three columns. Be sure that students complete the task individually and are given sufficient time.

[11] Obama, B. (2009, July 17). Remarks to the NAACP. Delivered at the National Association for the Advancement of Colored People's [NAACP] Centennial Convention, New York, NY.

TASK 4.1

Post assessment

Collect students' papers and make copies (prior to assessing and giving feedback) to give back to them as soon as possible after the test. Read and sort the papers, looking for effective papers that show valid claims that relate to the speech's argument and have fuller explanations about first the claims and then the counterclaims. Effective completed answers do not need to be without error of form or content (i.e., they may still need revision). Be ready to display those papers and ask those students before the next session if they would be willing to share their work and thinking with the class.

Assess and give feedback on students' papers as soon as possible after the assessment. Look for patterns across responses and identify/create mini-lessons to re-teach concepts, comprehension of text, or skills. Please note: Students should not be tested on Assessment 2 if they have not received feedback and follow-up instruction as needed on their work from Assessment 1.

Session 2:

Return copies of students' papers from the assessment. Have the students you identified as having effective papers share their work and thinking with the class. If the students who are sharing have difficulty articulating their thinking, prompt them with questions that will enable them to be more explicit. Ask students as necessary to show how they identified the speech's argument, where they found the claims, support for claims, links to argument, counterclaims related to claims, and distinctions of claims from counterclaims in the text.

With the whole group, decide what the writer needs to add or correct to make their answers even more effective.

StepBack Quick Write

With about 10-15 minutes left in this session, ask students to self-assess their own papers based on the discussion of papers. For example, you can ask students:

- How is my textual evidence and explanation effective?
- What could I improve in my answers?
- What is a mini-lesson that would help me improve my answers?

Collect students' self-assessments. This will give you added information as you plan for the mini-lessons you will teach in the next session.

Session 3:

Whole Group

Return students' papers with teacher feedback and students' self-assessments.

StepBack Quick Write

Ask students to compare the two and to write on the following in their Reader/Writer Notebooks:

- How is my teacher's feedback similar to and/or different from how I assessed my completed answers?
- What questions do I have?
- What did I learn from engaging in this activity?

TASK 4.1

Whole Group:
Invite students to share their StepBacks with the whole group.

Teacher Mini-Lessons
Provide whole or small group mini-lessons based on differentiated learning needs of your students. Mini-lessons might be on comprehending the gist of the text or a section of it, working with difficult vocabulary that is impeding basic comprehension, determining an argument, finding supporting claims and how they are supported, distinguishing claims from counterclaims, or writing effective explanations that incorporate textual evidence and address the question.

The overall goal of the mini-lessons is to support all students' basic comprehension of the Obama speech including determining its argument, claims, and counterclaims and writing explanations.

Focus Standards (CCSS, 2012, pp. 40, 45, 46, 54)

Reading Informational Text

RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly, as well as inferences drawn from the text.

RI.9-10.5 Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

RI.9-10.10 By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction at the high end of the grades 9–10 text complexity band independently and proficiently

Writing

W.9-10.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

W.9-10.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Language

L.9-10.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.9-10.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

TASK 4.1

Assessment Task 1

Please read President Barack Obama's speech, "Remarks to the NAACP." This speech was delivered on July 17, 2009 at the National Association for the Advancement of Colored People's [NAACP] Centennial Convention.

After you've read Obama's speech, identify the two claims you find most significant to his argument. Then, complete the three-column chart below to explain each claim. In column 1, state each significant claim and the paragraph number where the claim can be found. In column 2, explain the significance of each claim to Obama's argument. In column 3, explain how Obama supports each claim and distinguishes it from one or more of the speech's counterclaims. Use evidence from the text to support your explanations. Your response should be written for an audience who is familiar with Obama's speech and follow the conventions of standard English.

Significant Claim and Paragraph Number	Explanation of Significance to Obama's Argument	Explanation of How Obama Supports the Claim and Distinguishes It from One or More Counterclaims

Answer the questions below to plan your response. Your answers will be collected but not graded. After you've written your response, answer the StepBack questions. Your answers to the StepBack questions will also be collected but not graded.

Understanding the Assessment Task

As a way to examine the task and its directions, answer these questions:

1. Looking back over the task, what will you need to do first, second, third, etc., to fully address the task in your response?
2. Who are you writing for and how can you select and explain evidence from the text to suit the audience who will read this assessment?

StepBack After Completing the Task

1. In ten words or less, what did you include in your response that makes it complete, thoughtful, and accurate?
2. When faced with a difficult part of the task, what did you do to overcome the difficulty?
3. What more did you learn about the text by completing the assessment task?

Culminating Assessment Task

Teacher Preparation

Be sure to complete the assessment yourself. Your responses will provide sample evidence statements that you can use when you are drafting student feedback and scoring papers.

As part of this unit, you have read several arguments made by leaders across time to promote racial equality. The arguments you read are:

- "I Have a Dream," by Martin Luther King, Jr.,
- "Remarks to the Convocation of the Church of God in Christ," by William Jefferson Clinton,
- "Ending Racial Inequality," by George W. Bush, and
- "Remarks to the NAACP," by President Barack Obama

Which of the four speakers do you think makes the strongest argument?
Write an argumentative essay in which you make a case for the speaker who you think makes the strongest argument to promote racial equality. Consider each speaker's use of claims, counterclaims, reasons, evidence, and methods when making your determination.

Your argumentative essay should be one to two pages in length and should be written for an audience who is familiar with the speeches. Organize your essay so that it is easy to follow and establishes clear relationships among the claim(s), counterclaims, reasons, and evidence. Begin by introducing the topic and argument. Develop your argumentative essay with claims and counterclaims that are grounded in evidence from the four texts listed above. Be sure to use transitions that help link major sections of the text and clarify the relationships between and among claims, counterclaims, reasons, and evidence. Use the conventions of standard English and maintain a formal style.

Answer the questions below to plan your essay. Your answers will be collected, but not graded. After you've written your essay, answer the StepBack questions. Your answers to the StepBack questions will also be collected, but not graded

Understanding the Assessment Task:

As a way to examine the task and its directions, answer these questions:

1. Looking back over the task, what will you need to do first, second, third, etc., to fully address the task in your response?
2. Who are you writing for and how can you select and explain evidence from the text to suit the audience who will read this assessment?

StepBack After Completing the Task:

1. In ten words or less, what did you include in your response that makes it complete, thoughtful, and accurate?
2. When faced with a difficult part of the task, what did you do to overcome the difficulty?
3. What more did you learn about the text by completing the assessment task?

Focus Standards (CCSS, 2012, pp. 40, 45, 46, 54)

Reading Informational Text

RI.9-10.1 Cite strong and thorough textual evidence to support analysis of what the text says explicitly, as well as inferences drawn from the text.

RI.9-10.2 Determine a central idea of a text and analyze its development over the course of the text, including how it emerges and is shaped and refined by specific details; provide an objective summary of the text.

RI.9-10.3 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

RI.9-10.5 Analyze in detail how an author's ideas or claims are developed and refined by particular sentences, paragraphs, or larger portions of a text (e.g., a section or chapter).

RI.9-10.6 Determine an author's point of view or purpose in a text and analyze how an author uses rhetoric to advance that point of view or purpose.

RI.9-10.9. Analyze seminal U.S. documents of historical and literary significance (e.g., Washington's Farewell Address, the Gettysburg Address, Roosevelt's Four Freedoms speech, King's "Letter from Birmingham Jail"), including how they address related themes and concepts.

RI.9-10.10 By the end of grade 9, read and comprehend literary nonfiction in the grades 9–10 text complexity band proficiently, with scaffolding as needed at the high end of the range. By the end of grade 10, read and comprehend literary nonfiction at the high end of the grades 9–10 text complexity band independently and proficiently.

Writing

W.9-10.1 Write arguments to support claims in an analysis of substantive topics or texts, using valid reasoning and relevant and sufficient evidence.

W.9-10.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience. (Grade-specific expectations for writing types are defined in standards 1-3.)

W.9-10.5 Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on addressing what is most significant for a specific purpose and audience. (Editing for conventions should demonstrate command of Language standards 1-3 up to and including grades 9-10 on page 54.)

W.9-10.9 Draw evidence from literary or informational texts to support analysis, reflection, and research.

W.9-10.10 Write routinely over extended time frames (time for research, reflection, and revision) and shorter time frames (a single sitting or a day or two) for a range of tasks, purposes, and audiences.

Language

L.9-10.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.

L.9-10.2 Demonstrate command of the conventions of standard English capitalization, punctuation, and spelling when writing.

L.9-10.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.

3 - Math

Instruction that Deepens Mathematical Understanding

Tennessee Department of Education
Common Core Leadership Course 202

TNCore

Math Table of Contents

Course Goals/Objectives

1) Further develop our understanding of the expectations of the standards and PARCC in math. Examine student work for strengths and areas for growth.

2) Unpack components of a lesson that support rigorous mathematical thinking

3) Develop a plan of action to help all students meet expectation by class 3.

4) Step back and consider the implications of our work thus far on local planning for the coming year. Understand the available resources to support instructional planning in the coming year.

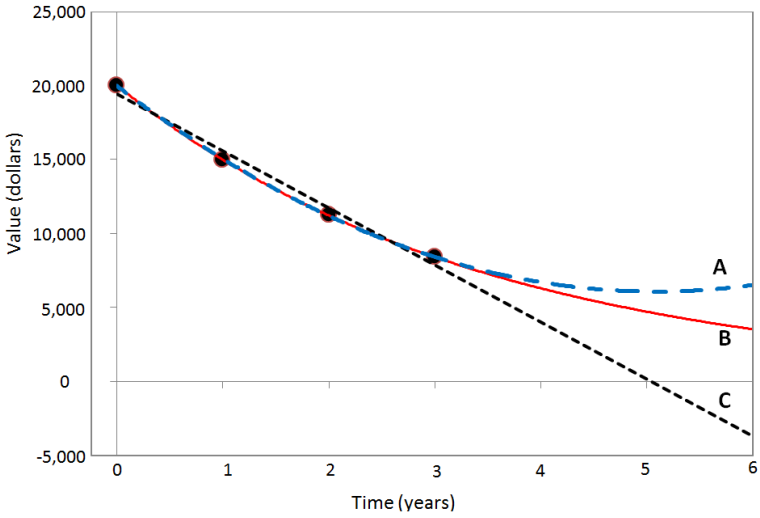
High School Math Task #2

Jose's Car Task

Jose is studying how his car has lost value over time. He purchased the car new for $20,000 in 2008. He records the value of the car each year since he purchased it. The table shows the data collected for the first three years since he bought the car.

Years since 2008	0	1	2	3
Value of the car	$20,000	$15,000	$11,200	$8,400

The figure shows Jose's data (data points are plotted as large dots). Three possible models for the data are: a linear model, a quadratic model, and an exponential model.



Part A

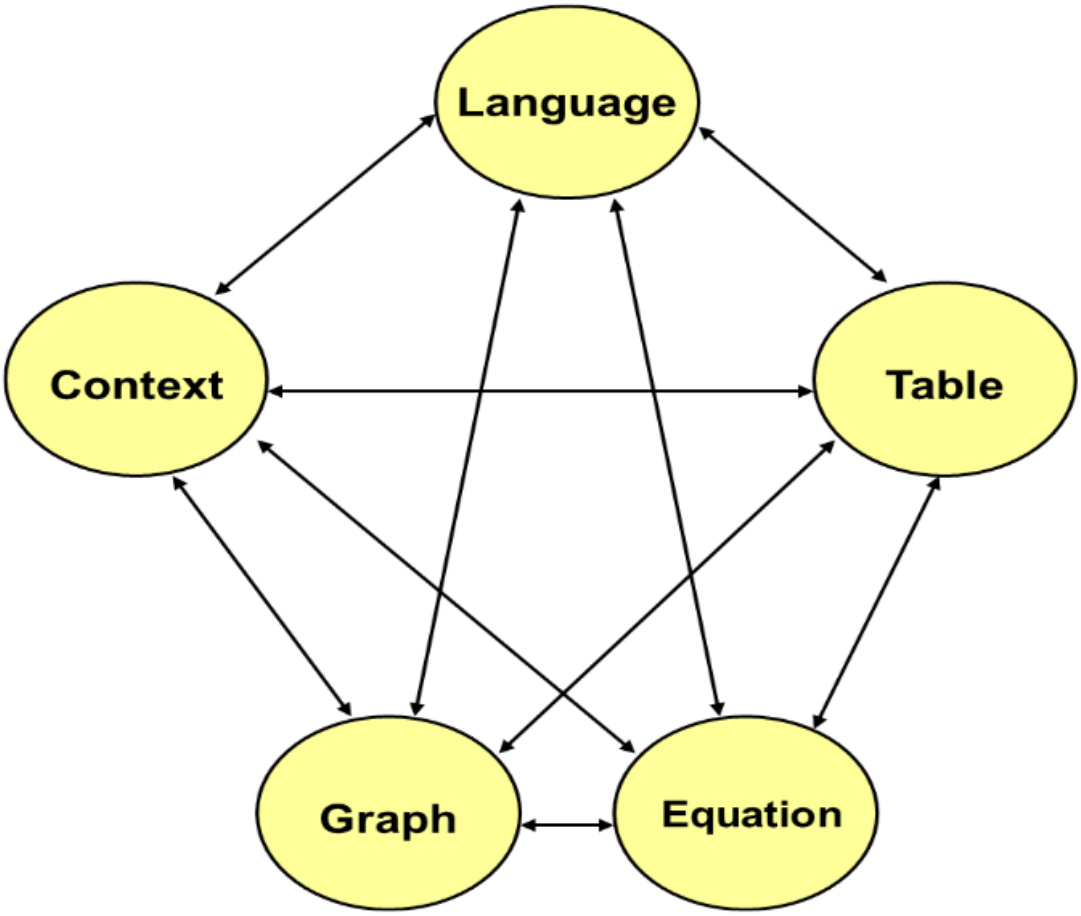
- Which model is linear? Which model is quadratic? Which model is exponential?
- Which model is best for the range of times $0 \le t \le 6$?
- Explain why the other models do not fit the data very well for the range of times $0 \le t \le 6$.

Part B

- Construct a function using the type of model you decided is best (linear, quadratic, or exponential). Show your work and use function notation when giving your answer.

Source: Adapted from PARCC sample item

Multiple Representations



Adapted from Lesh, Post, & Behr, 1987

Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

Warm Up Task

Linear Models

For example, we saw that for this table:

x	0	1	2	3	4
f(x)	3	5	7	9	11

We could write : $f(x) = 2x + 3$

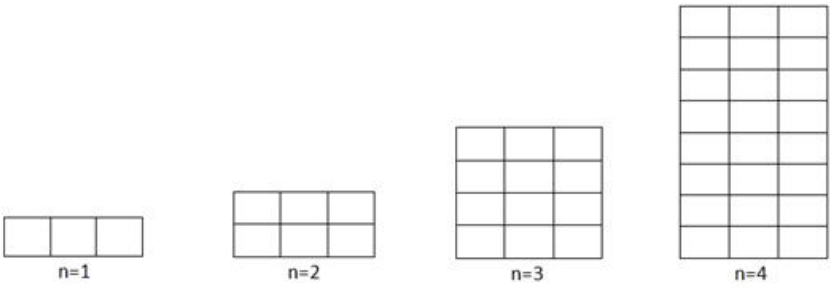
For this table, what would the equation be?

x	0	1	2	3	4
f(x)	3	1	-1	-3	-5

Equation:

Warm Up Task, Continued

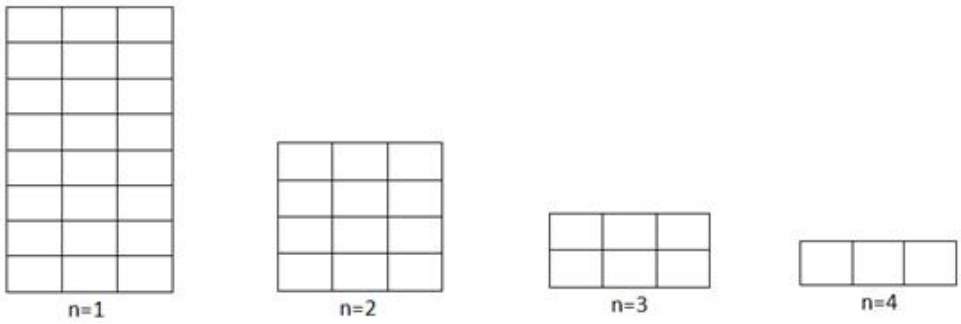
Exponential Models



We can write $a_n = 3(2)^{n-1}$

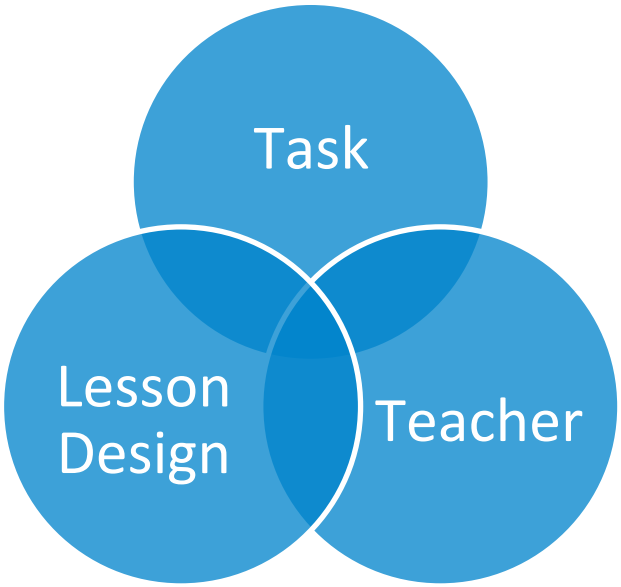
(or model with $f(x) = 3(2)^{x-1}$)

How would we write an equation for this problem?



Equation:

Supporting Understanding of a Lesson



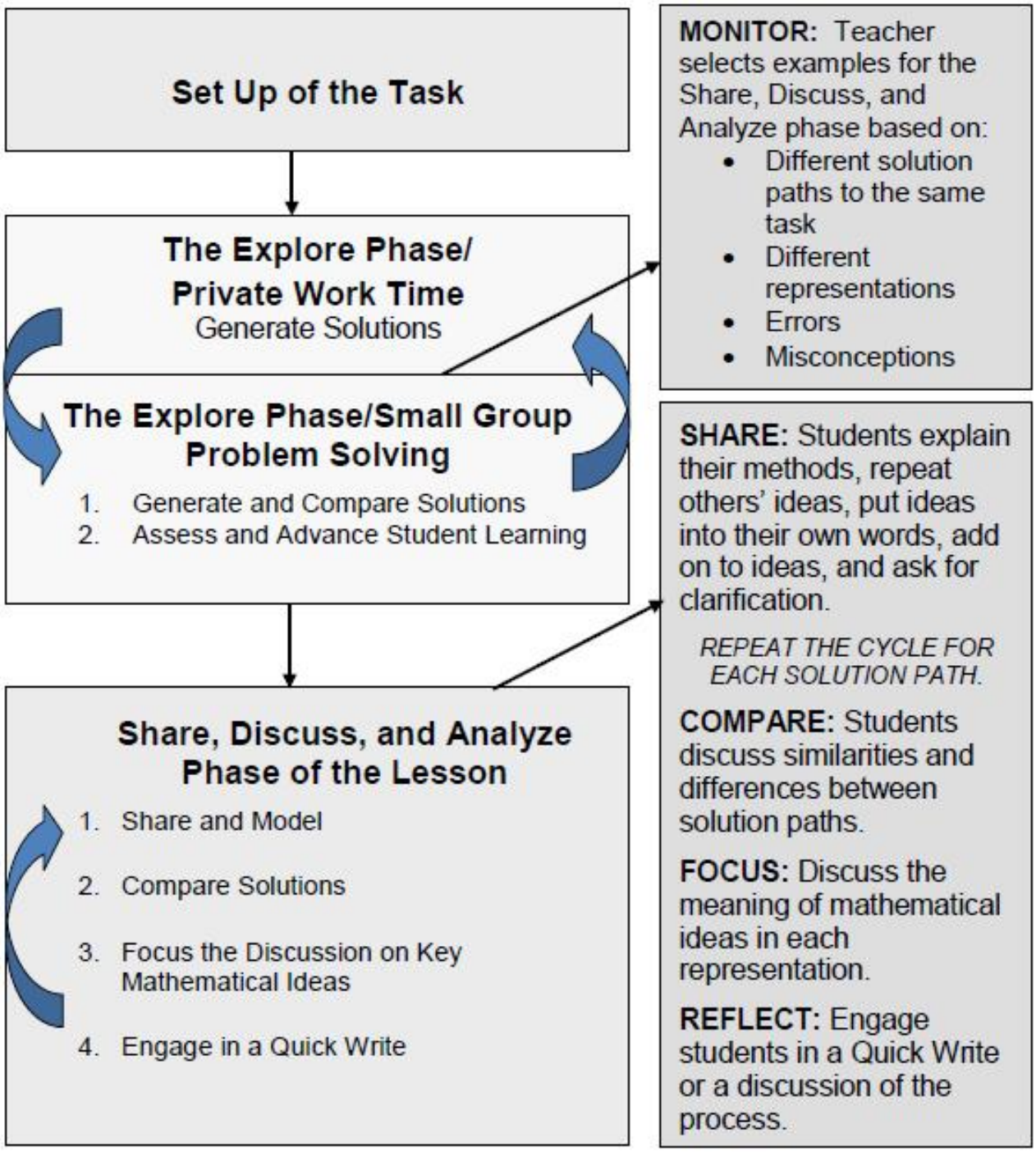
Notes:

The Task:

The Lesson Design:

The Teacher:

Structures and Routines of a Lesson



Institute for Learning

Mathematics Task Arcs

Overview of Mathematics Task Arcs:

A task arc is a set of related lessons which consists of eight tasks and their associated lesson guides. The lessons are focused on a small number of standards within a domain of the Common Core State Standards for Mathematics. In some cases, a small number of related standards from more than one domain may be addressed.

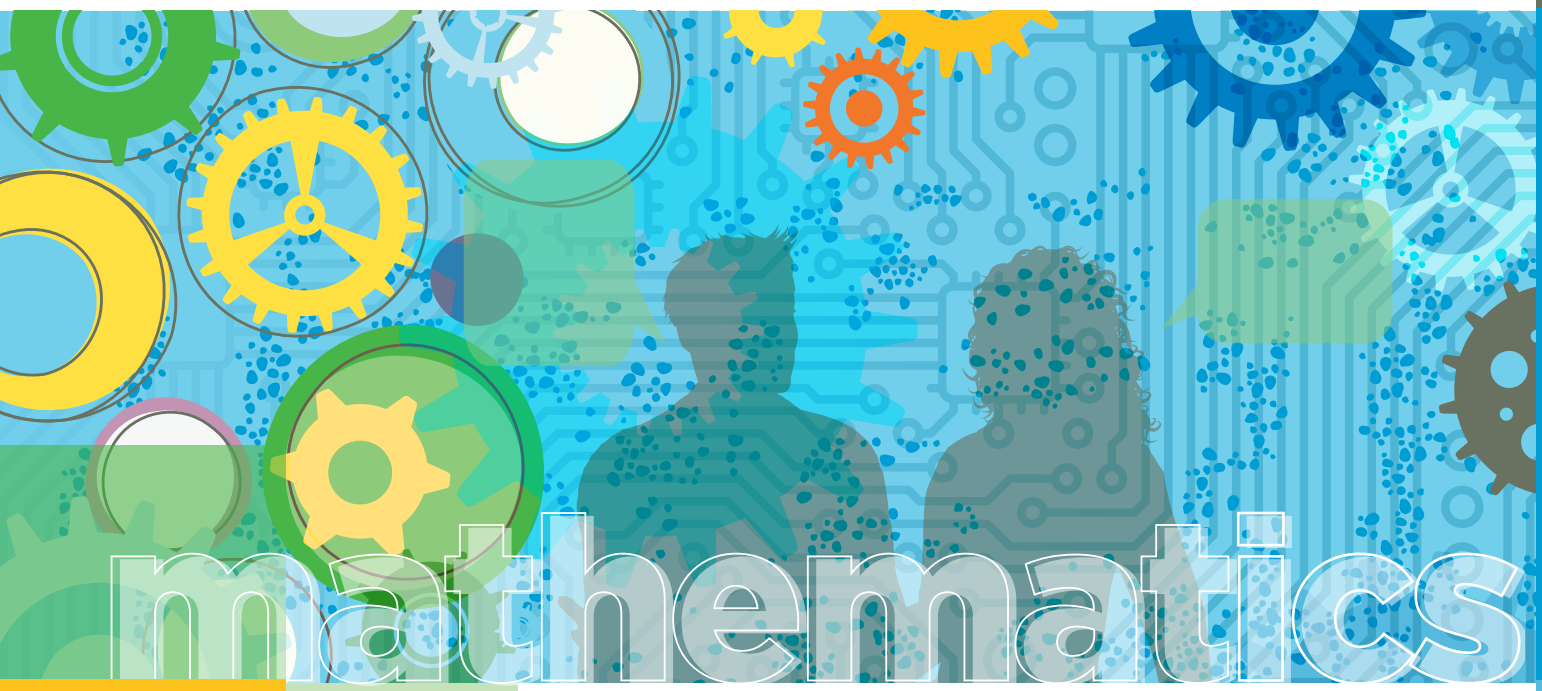
A unique aspect of the task arc is the identification of essential understandings of mathematics. An essential understanding is the underlying mathematical truth in the lesson. The essential understandings are critical later in the lesson guides, because of the solution paths and the discussion questions outlined in the share, discuss, and analyze phase of the lesson are driven by the essential understandings.

The Lesson Progression Chart found in each task arc outlines the growing focus of content to be studied and the strategies and representations students may use. The lessons are sequenced in deliberate and intentional ways and are designed to be implemented in their entirety. It is possible for students to develop a deep understanding of concepts because a small number of standards are targeted. Lesson concepts remain the same as the lessons progress; however the context or representations change.

Bias and sensitivity:

These tasks are peer-reviewed and have been vetted for content by district-level experts. However, it is the responsibility of local school districts to review these tasks for bias before use in local schools.

institute for learning



Algebra 1

Creating and Interpreting Functions

A SET OF RELATED LESSONS

UNIVERSITY OF PITTSBURGH

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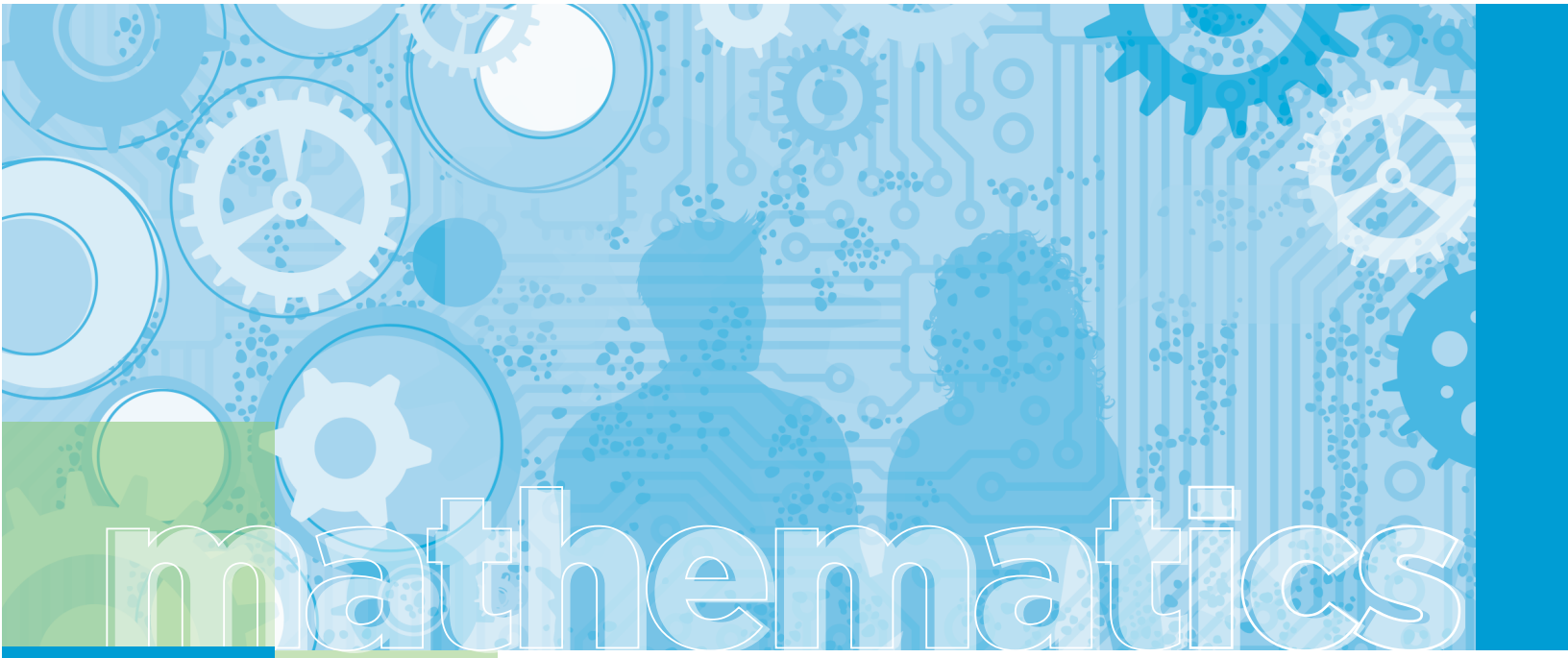


Algebra 1

Introduction

Creating and Interpreting Functions

A SET OF RELATED LESSONS

Overview

In this set of related lessons, students create and interpret functions, rate of change, and average rate of change of the function. In the first three tasks, students create linear functions, focusing on rate of change, as well as domain and range. The tasks start with a context before moving to graphical representations. Students solidify their understanding of these concepts in Task 4 before moving to more complex problem situations in Tasks 5 - 8. In these tasks, students interpret average rate of change of qualitative graphs. Task 5 begins with a graphical representation that students interpret. In Task 6, two situations are given that students must graph and interpret. In Task 7, students compare rate of change and average rate of change of two qualitative graphs on the same coordinate plane. Students solidify this understanding in Task 8. All eight tasks are grounded in the study of rate of change of functions in various contexts and representations.

The tasks are aligned to the A.CED.A.2, F.IF.B.4, F.IF.B.5, and F.IF.B.6 Content Standards of the CCSSM.

The prerequisite knowledge necessary to enter these lessons is an understanding of how to evaluate and graph a function given an algebraic representation.

Through engaging in the lessons in this set of related tasks, students will:

- create and interpret functions;
- calculate and interpret rate of change and average rate of change; and
- interpret the properties of functions graphed on the coordinate plane.

By the end of these lessons, students will be able to answer the following overarching questions:

- How can a linear model describe how one variable changes with respect to the other?
- How is rate of change calculated and interpreted graphically?
- What is average rate of change and how is it the same/different from simple linear rate of change?

The questions provided in the guide will make it possible for students to work in ways consistent with the Standards for Mathematical Practice. It is not the Institute for Learning's expectation that students will name the Standards for Mathematical Practice. Instead, the teacher can mark agreement and disagreement of mathematical reasoning or identify characteristics of a good explanation (MP3). The teacher can note and mark times when students independently provide an equation and then re-contextualize the equation in the context of the situational problem (MP2). The teacher might also ask students to reflect on the benefit of using repeated reasoning, as this may help them understand the value of this mathematical practice in helping them see patterns and relationships (MP8). In study groups, topics such as these should be discussed regularly because the lesson guides have been designed with these ideas in mind. You and your colleagues may consider labeling the questions in the guide with the Standards for Mathematical Practice.

Identified CCSSM and Essential Understandings

CCSS for Mathematical Content: Creating Equations and Interpreting Functions		**Essential Understandings**
Create equations that describe numbers or relationships.		
A.CED.A.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	The solution to an equation can be represented algebraically, graphically, in a table, and in a context. Linear equations can be used to model real-world situations. Equations describing real-world contexts require special attention to units when reasoning algebraically and performing calculations. The graph of a linear relationship is a line that models the relationship between the variables. The coordinates of the points on the line form the solution set for the associated linear equation.
Interpret functions that arise in applications in terms of the context.		
F.IF.B.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*	The language of change and rate of change (increasing, decreasing, constant, relative maximum or minimum) can be used to describe how two quantities vary together over a range of possible values.

CCSS for Mathematical Content: Creating Equations and Interpreting Functions		**Essential Understandings**
F.IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*	In certain contexts, the domain and range of the relationship that models the context are constrained by the context because certain values may not make sense in the situation.
F.IF.B.6	Calculate and interpret the average rate of change of a function (presented symbolically or as a table) over a specified interval. Estimate the rate of change from a graph.	The average rate of change is the ratio of the change in the dependent variable over a specified interval in the domain to the change in the independent variable over the same interval.

The CCSS for Mathematical Practice

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**Common Core State Standards, 2010, NGA Center/CCSSO*

Tasks' CCSSM Alignment

Task	A.CED.A.2	F.IF.B.4	F.IF.B.5	F.IF.B.6
Task 1 Joe's on the Beach Ice Cream Developing Understanding	✓		✓	
Task 2 Jose's Surfboard Developing Understanding	✓	✓	✓	
Task 3 Ocoee Sand Dunes Developing Understanding	✓	✓	✓	
Task 4 More Sand Dunes Solidifying Understanding	✓	✓		
Task 5 Swimming Pool Depth Developing Understanding		✓		✓
Task 6 Walking Developing Understanding	✓	✓		✓
Task 7 Bike and Truck Developing Understanding		✓		✓
Task 8 Sandpiper vs. the Sand Crab Solidifying Understanding				✓

Task	MP 1	MP 2	MP 3	MP 4	MP 5	MP 6	MP 7	MP 8
Task 1 Joe's on the Beach Ice Cream Developing Understanding	✓	✓		✓		✓	✓	
Task 2 Jose's Surfboard Developing Understanding	✓			✓		✓	✓	
Task 3 Ocoee Sand Dunes Developing Understanding	✓		✓	✓		✓	✓	
Task 4 More Sand Dunes Solidifying Understanding	✓	✓	✓	✓		✓	✓	✓
Task 5 Swimming Pool Depth Developing Understanding	✓	✓	✓	✓		✓	✓	
Task 6 Walking Developing Understanding	✓	✓		✓		✓		
Task 7 Bike and Truck Developing Understanding	✓	✓	✓	✓		✓		
Task 8 Sandpiper vs. the Sand Crab Solidifying Understanding	✓		✓	✓		✓		✓

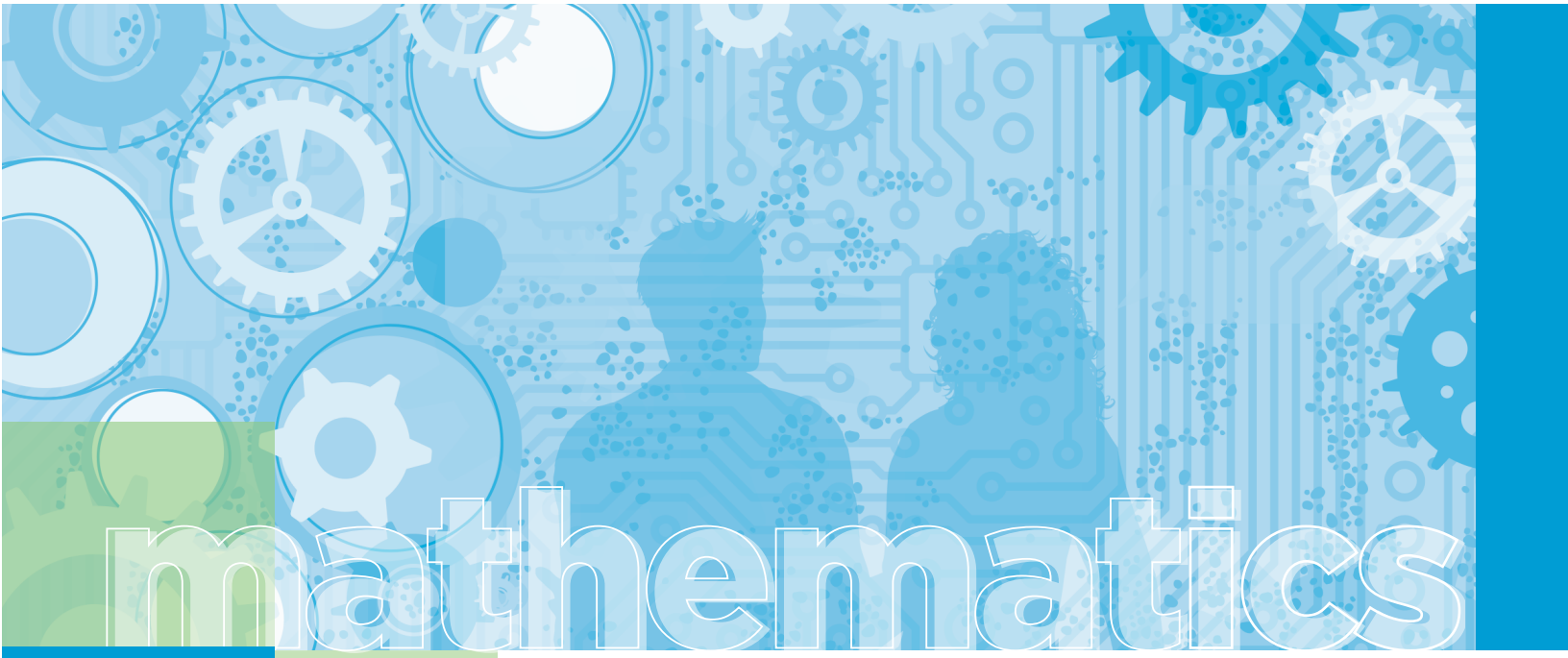
Lesson Progression Chart

Overarching Questions

- How can a linear model describe how one variable changes with respect to the other?
- How is rate of change calculated and interpreted graphically?
- What is the average rate of change and how is it the same/different from simple linear rate of change?

	Task 1 **Joe's on the Beach Ice Cream** *Developing Understanding*	**Task 2** **Jose's Surfboard** *Developing Understanding*	**Task 3** **Ocoee Sand Dunes** *Developing Understanding*	**Task 4** **More Sand Dunes** *Solidifying Understanding*
Content	Create linear functions in two variables to model a graph.	Create linear functions in two variables to model a graph. Analyze rate of change.	Determine whether a given function correctly models a situation. Analyze domain and range of a function.	Solidify understanding of rate of change from a graph.
Strategy	Substitute values into the equation; determine how change in one variable affects the other.	Analyze change using the formula or other method of determining change in y compared to change in x.	Substitute values; use the slope formula.	Determine the change in y-values compared to the change in x-values between two points on the coordinate plane.
Representations	Starts with a context; student writes an equation and represents the situation graphically.	Starts with a graph; student interprets the graph and writes an equation.	Starts with points on the coordinate plane; student analyzes an equation to determine whether it correctly models the graph.	Starts with graphical representation; student represents the rate of change symbolically.

	Task 5 **Swimming Pool Depth** *Developing Understanding*	**Task 6** **Walking** *Developing Understanding*	**Task 7** **Bike and Truck** *Developing Understanding*	**Task 8** **Sandpiper vs. the Sand Crab** *Solidifying Understanding*
Content	Create and solve two-variable linear equations; analyze a situation over specific intervals.	Sketch functions given the rates of change over specific intervals.	Describe key characteristics of a graph.	Solidify an understanding of average rate of change.
Strategy	Analyze the rate of change graphically.	Compare the rates of change for two different situations graphically, using a formula.	Analyze steepness over specific intervals using a formula, slope triangle, or comparing vertical and horizontal change.	Calculate average rate of change using specific intervals.
Representations	Starts with a table.	Starts with a written description; student creates the graphs.	Starts with a graph that student interprets.	Starts with two graphs that student interprets. Student then sketches graphs given an average rate of change.



Algebra 1

Tasks and Lesson Guides

Creating and Interpreting Functions

A SET OF RELATED LESSONS

Name_____

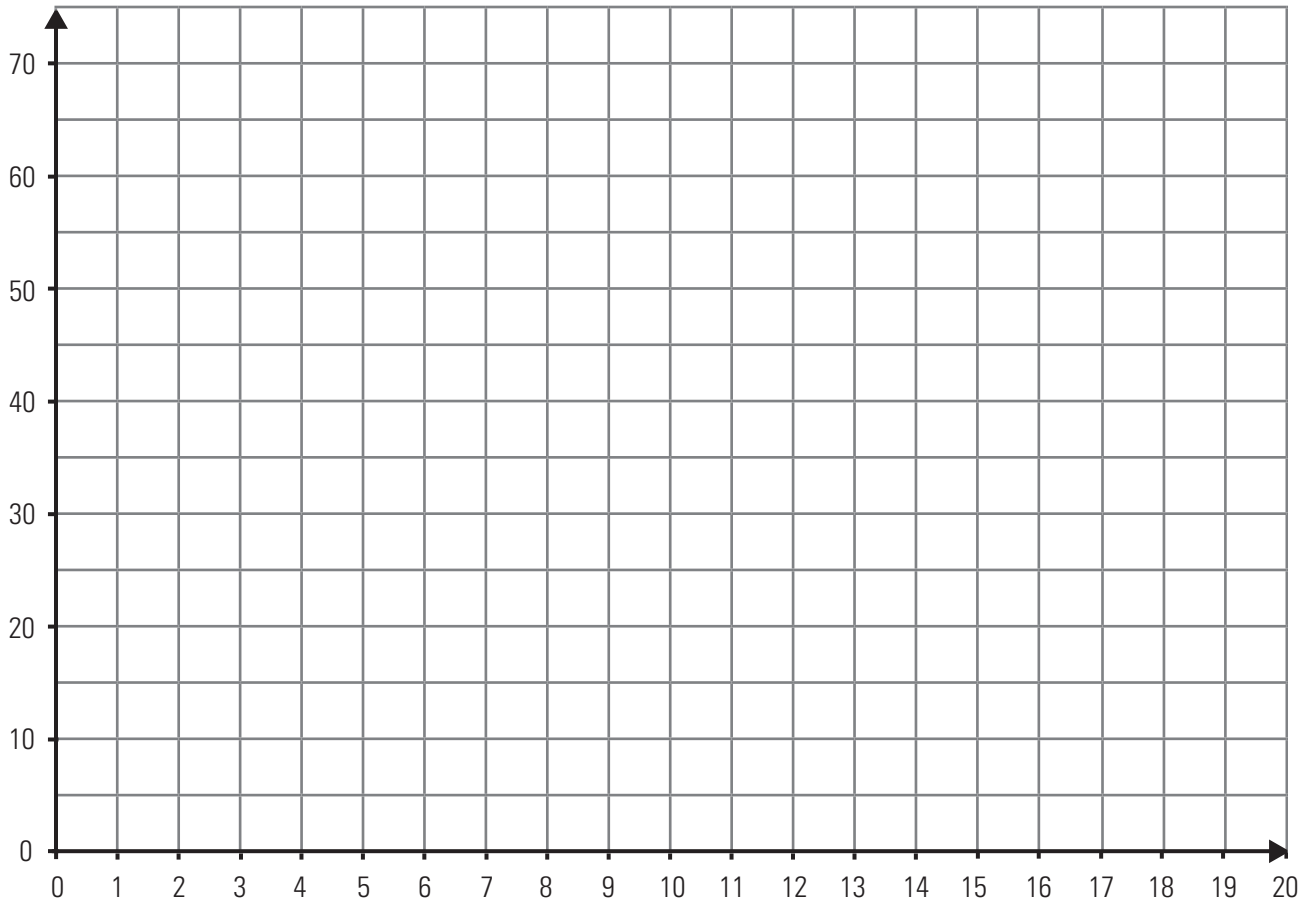
TASK 1

Joe's on the Beach Ice Cream

At Joe's on the Beach, single-scoop ice cream cones sell for $2.99 and ice cream cakes sell for $24.99. Rosa buys an ice cream cake for her party. She also decides to buy a single-scoop cone for each of her friends.

1. Write a function that can be used to determine the cost *(y)* of a cake and any number of cones *(x)* that Rosa buys. Explain the meaning of the terms in your function.

2. Sketch a graph that models the problem situation. Explain how you know your graph models the problem situation.



3. How does the total cost increase with the number of cones bought? How does this appear in the function and the graph?

LESSON GUIDE 1

Joe's on the Beach Ice Cream

Rationale for Lesson: Models a situation using a function and a graph. Describes rate of change in a context. Develop an understanding of how context can affect the domain of a function.

Task 1: Joe's on the Beach Ice Cream

At Joe's on the Beach, single-scoop ice cream cones sell for $2.99 and ice cream cakes sell for $24.99. Rosa buys an ice cream cake for her party. She also decides to buy a single-scoop cone for each of her friends.

1. Write a function that can be used to determine the cost (y) of a cake and any number of cones (x) that Rosa buys. Explain the meaning of the terms in your function.
2. Sketch a graph that models the problem situation. Explain how you know your graph models the problem situation.

See student paper for complete task.

Common Core Content Standards	A.CED.A.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
	F.IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*
Standards for Mathematical Practice	MP1 Make sense of problems and persevere in solving them. MP2 Reason abstractly and quantitatively. MP4 Model with mathematics. MP6 Attend to precision. MP7 Look for and make use of structure.	
Essential Understandings	• Linear equations can be used to model real-world situations. Equations describing real-world contexts require special attention to units when reasoning algebraically and performing calculations. • The graph of a linear relationship is a line that models the relationship between the variables in the context. The coordinates of the points on the line form the solution set for the associated linear equation. • In certain contexts, the domain and range of the relationship that models the context are constrained by the context because certain values may not make sense in the situation.	
Materials Needed	• Task. • Extra graph paper. • Straight edge. • Calculator (optional).	

LESSON GUIDE 1

SET-UP PHASE

Please read the task out loud. Who can summarize this problem situation without discussing answers? You will have 5 minutes of private think time before working with your groups.

EXPLORE PHASE

EXPLORE PHASE		
Possible Student Pathways	**Assessing Questions**	**Advancing Questions**
Group can't get started.	What do you know about the problem?	How much will she spend if she buys 1 cone (cake included)? 2 cones? What pattern do you notice?
Students set up a table. *# of cones* / *Cost* *0 (may not appear)* / *24.99* *3* / *33.96* *8* / *48.91*	How did you determine the values in your table?	If Rosa buys 50 cones, how will you calculate the cost? X cones?
Sketches graph but is unable to write an equation.	What does the y-intercept represent? What is the rate of change?	What about this problem situation tells us that the graph will be a straight line? How can you use that information to write an equation?
Has a graph and an equation but has difficulty explaining the terms of the equation.	What is the connection between the constant term in your equation and your graph?	How is the cost of a single cone shown in the graph?

LESSON GUIDE 1

SHARE, DISCUSS, AND ANALYZE PHASE

EU: Linear equations can be used to model real-world situations. Equations describing real-world contexts require special attention to units when reasoning algebraically and performing calculations.

- Show us the table that you created and tell us how the table helped you think about the problem. Who can show us the cost per cone in this table? What patterns do we see? Tell us how you used the patterns to generate an equation.
- Say more about how the equation you wrote models the problem situation. What does each term represent? *(The 24.99 represents the cake. The 2.99 represents the cost of each cone. The x is the number of cones and the y is the total cost.)*
- How do you know this equation models the information in the table?
- I'm hearing you say that the constant value is the cake because this only occurs once while the x is the number of cones and this changes by 2.99, depending on how many cones are bought. **(Revoicing)**
- Tell us more about the term "2.99c." Why did you express it this way? Could you have written "299c" in your equation instead of "2.99c"? Why or why not?
- How can this group's equation be used to predict the cost of 4 cones? How does this appear in the table?

EU: The graph of a linear relationship is a line that models the relationship between the variables in the context. The coordinates of the points on the line form the solution set for the associated linear equation.

- How does your group's graph represent the problem situation?
- Who can show us on the graph where the cost per cone is? What about the cost of the ice cream cake? *(The y-intercept shows the cost of the cake and you can see the line increase by close to 3 for every 1 unit over because this is the cost of each cone.)*
- How does this relate to the table and the equation? *(In the table you can see the point [0, 24.99] and a change of 2.99 for every x increase of 1.)*
- How is the pattern that we observed in the table showing up in the graph? How does that pattern relate to the problem context?
- Let's look back at the equation again. How does the structure of the equation help us interpret the graph? *(The equation is linear, in the form y = mx + b, so this lets you know that the graph will be a line.)*
- Do the equation and the graph model the same relationship? Why or why not?
- Let's consider this point here. How do these x and y coordinates relate to the equation? Can somebody restate what this group just said about the coordinates making the equation true?
- Will that be true of every point on this line? Why or why not?
- So we can agree that the function is linear because it is a line and the equation is in the form y = mx + b. We can see that the m represents the rate of change and the b value is the constant term which can be seen on the graph where the line crosses the y-axis. **(Recapping)**

LESSON GUIDE 1

EU: In certain contexts, the domain and range of the relationship that models the context are constrained by the context because certain values may not make sense in the situation.

- Will every pair of *x* and *y* values that make the equation true be a point on the graph?
- I saw many groups connect the points on the graph. Does every value make sense? Can you buy 1.5 cones? I hear people saying "no," so then what should the graph look like?
- The input values of a function are the domain while the output values are the range. **(Marking)** Is the domain of the function the same as the domain of the graph? Explain.

Application	If Joe's on the Beach reduces the cost of the ice cream cake to $17.99, how does this affect the equation we created? The graph? The table?
Summary	Let's look at our 3 representations—table, equation, and graph. How does each representation model the situation? What values stay the same? What changes?
Quick Write	In your own words, describe the meaning of domain.

Support for students who are English Learners (EL):

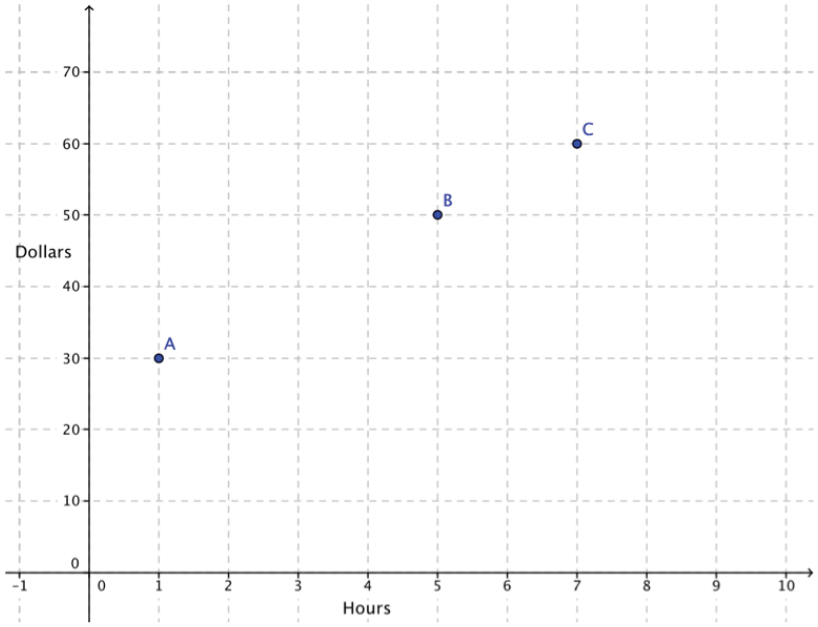
1. Display images of an ice cream cake and ice cream cone so students identified as English Learners associate the words in the problem with the images.
2. Slow down the whole class discussion for students who are English Learners by asking other students to repeat key ideas and to put ideas in their own words.
3. Create a running list of ways in which the function models the problem situation and ask students who are English Learners to step back and notice similarities, differences, and/or patterns.

TASK 2

Name_____

Jose's Surfboard

Jose rents a surfboard for the day from a company that charges by the hour. The graph below shows the cost of renting a surfboard for different amounts of time.



1. What is the rental rate per hour for the surfboard? Explain your reasoning.

2. If the cost continues at this rate, calculate the cost of renting a surfboard for 12 hours. Show all work and explain your reasoning.

3. Calculate the number of hours Jose surfs if the rental cost is $150.00. Show all work and explain your reasoning.

4. Is the domain of the function the same as the domain of the problem situation? Explain your reasoning.

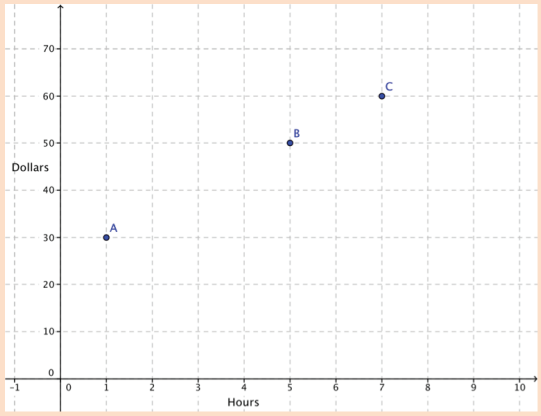
Jose's Surfboard

LESSON GUIDE 2

Rationale for Lesson: Continue developing understanding of creating functions and how the context affects possible solution values for the function. In this lesson, students begin with a graph and use the rate of change to answer questions.

Task 2: Jose's Surfboard

Jose rents a surfboard for the day from a company that charges by the hour. The graph below shows the cost of renting a surfboard for different amounts of time.



1. What is the rental rate per hour for the surfboard? Explain your reasoning.
2. If the cost continues at this rate, calculate the cost of renting a surfboard for 12 hours. Show all work and explain your reasoning.

See student paper for complete task.

Common Core Content Standards	A.CED.A.2	Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.
	F.IF.B.4	For a function that models a relationship between two quantities, interpret key features of graphs and tables in terms of the quantities, and sketch graphs showing key features given a verbal description of the relationship. *Key features include: intercepts; intervals where the function is increasing, decreasing, positive, or negative; relative maximums and minimums; symmetries; end behavior; and periodicity.*
	F.IF.B.5	Relate the domain of a function to its graph and, where applicable, to the quantitative relationship it describes. *For example, if the function h(n) gives the number of person-hours it takes to assemble n engines in a factory, then the positive integers would be an appropriate domain for the function.*

LESSON GUIDE 2

Standards for Mathematical Practice	MP1 Make sense of problems and persevere in solving them. MP4 Model with mathematics. MP6 Attend to precision. MP7 Look for and make use of structure.
Essential Understandings	• The solution to an equation can be represented algebraically, graphically, in a table, and in a context. • The language of change and rate of change (increasing, decreasing, constant, relative maximum or minimum) can be used to describe how two quantities vary together over a range of possible values. • In certain contexts, the domain and range of the relationship that models the context are constrained by the context because certain values may not make sense in the situation.
Materials Needed	• Task. • Calculator (optional).

LESSON GUIDE 2

SET-UP PHASE

Somebody please read the task aloud. Now take 5 minutes to work on the task before turning and talking to your partner(s).

EXPLORE PHASE

Possible Student Pathways	Assessing Questions	Advancing Questions
Group can't get started.	What can you tell me about this point (pointing to [1, 30])? What does it mean in the context of this problem?	How is the cost changing from 0 to 1 hours? 1 to 2 hours?
Creates a table. <table><tr><th>Time</th><th>Cost</th></tr><tr><td>0</td><td>25</td></tr><tr><td>5</td><td>50</td></tr><tr><td>10</td><td>75</td></tr><tr><td>15</td><td>100</td></tr></table>	How did you determine the values in your table?	What patterns do you see in the table? How can you use these patterns to predict the cost of renting a surfboard for 12 hours?
Extends the line.	Can you explain your strategy? How do you know extending the line is a strategy that works?	How can you use the line to find the cost of a 12-hour rental? The number of hours you can rent for $150?
Writes a function to model the situation.	What do the terms in your function mean with respect to the context?	How can you use the function to make predictions? Is the domain of your function the same as the domain of the context?

LESSON GUIDE 2

SHARE, DISCUSS, AND ANALYZE PHASE

EU: The solution to an equation can be represented algebraically, graphically, in a table, and in a context. Linear equations can be used to model real-world situations.

- Who can explain how to write a function to represent this situation?
- What do each of the points on the graph represent? Explain.
- How does your function represent the information on the graph symbolically?
- What does each term represent? *(The 5 represents the cost per hour and the 25 represents the one-time fee.)*
- Right. The 5 represents the cost per hour, or the rate of change, and the 25 represents the y-intercept, or the cost for zero hours. **(Revoicing)**

EU: The language of change and rate of change (increasing, decreasing, constant, relative maximum or minimum) can be used to describe how two quantities vary together over a range of possible values.

- Let's take a look at how different groups determined the number of hours Jose rented the surfboard.
- I notice several groups represented the problem in different ways. Who can explain how to use the graph to tell how much Jose has to pay to rent his surfboard?
- How does the graph show the hourly rate that Jose is paying for his surfboard rental?
- How does this appear in the table and equation?
- We know that linear functions have constant rates of change. How does the graph reflect this characteristic? The equation? How will it appear in a table of values for this function?
- Can somebody summarize the key points in this explanation?

EU: In certain contexts, the domain and range of the relationship that models the context are constrained by the context because certain values may not make sense in the situation.

- What does domain mean? What is the domain of this problem situation?
- What values can you substitute for x into the equation? Do all of these values make sense?
- Discuss with your partners whether you feel decimal values, negative numbers, and all positive numbers should be included. *(Since x represents time and the surfboard is rented by the hour, it doesn't make sense to rent for negative dollars or negative time.) (Since they rent by the hour, you can't rent for part of an hour. Only whole numbers of hours make sense.)*
- What do others think? Can you rent for part of an hour? *(If you keep the surfboard for too long they probably charge you for another hour. So, 2 hours and 15 minutes would cost as much as 3 hours.)*
- I'm hearing groups say that the cost is defined for any positive amount of time, but that it jumps up all at once after certain amounts of time instead of increasing at a constant rate. Other groups argue that the context only makes sense for whole number values of time. Each of these interpretations has a graph that is not continuous, because the curve (line) is not smooth and unbroken.
- We agree that the domain of the problem situation is different from the domain of the equation, but is it possible that we may disagree on the domain of the problem situation?

LESSON GUIDE 2

Application	If the cost of renting a surfboard is $7 per hour, how will the graph and equation change? How will they stay the same?
Summary	Where do the slope and the y-intercept appear in the graph? What do they mean in the problem situation?
Quick Write	Describe in as many ways as possible how you know that (2, 35) is a solution to the equation.

Support for students who are English Learners (EL):

1. Bring in or display an image of a surfboard so students identified as English Learners associate the word in the problem with the image.
2. Slow down the whole class discussion for students who are English Learners by asking other students to repeat key ideas and to put ideas in their own words.
3. Create a running list of connections between the equation and the graph and ask students who are English Learners to step back and notice similarities, differences, and/or patterns. Create a classroom artifact showing the meaning of rate of change and how it may appear in the graph/table/equation.

Set-Up Phase

Video Clip

Reflection Questions:

1. What actions is the teacher doing? What is her goal?

2. What preparation does the teacher need to do in order to make this phase successful?

3. How are students responding to the teacher?

Explore Phase

Private Think Time

Video Clip

Reflection Questions:

1. How is the teacher ensuring continued success during this time?

2. What are the different student outputs' that you are seeing?

Explore Phase

Small Group Time

(Small Group Time, Approximately 10 Minutes)

Video Clip

Reflection Questions:

1. How does the teacher connect to various levels of student understanding?

2. What are students asked to do during this part of the lesson?

Share, Discuss and Analyze Phase

Video Clip

Reflection Questions:

1. How do you see ways in which the teacher prepared for this part of the lesson?

2. What are the students demonstrating for the teacher and how is the teacher helping the students do that?

3. Which Accountable Talk© moves did you see being used?

4. How does the teacher make connections between the student work and the mathematical goal?

Accountable Talk© Chart

Talk Moves	Function	Example
	To Ensure Purposeful, Coherent, and Productive Group Discussion	
Marketing	Direct **attention** to the value and importance of s student's contribution.	It is important t say describe to compare the size of the pieces and then to look at how many pieces if that size.
Challenging	Redirect a question back to the students or use students' contributions as a source for further challenge or query.	Let me challenge you: Is that always true?
Revoicing	Align a student's explanation with content or connect two or more contributions with the goal of advancing the discussion of the content.	You said 3, yes there are three columns and each column is 1/3 of the whole.
Recapping	Make public in a concise, coherent form, the group's achievement at creating a shared understanding of the phenomenon under discussion.	Let me put these ideas all together. What have we discovered?
	To Support Accountability to Community	
Keeping the Channels Open	Ensure that students can hear each other, and remind them that they must hear what others have said.	Say that again and louder. Can someone repeat what was just said?
Keeping Everyone Together	Ensure that everyone not only heard, but also understood, what a speaker said.	Can someone add on to what was said? Did everyone hear that?
Linking Contributions	Make explicit the relationship between a new contribution and what has gone before.	Does anyone have a similar idea? Do you agree or disagree with what was said? Your idea sounds similar to his idea.
Verifying and Clarifying	Revoice a student's contribution, thereby helping both speakers and listeners to engage more profitability in the conversation.	So are you saying..? Can you say more? Who understood what was said?
	To Support Accountability to Knowledge	
Pressing for Accuracy	Hold students accountable for the accuracy, credibility, and clarity of their contribution.	Why does that happen? Someone give me the term for that.
Building on Prior Knowledge	Tie a current contribution back to knowledge accumulated by the class at a previous time.	What have we learned in the past that links with this?
	To Support Accountability to Rigorous Thinking	
Pressing for Reasoning	Elicit evidence to establish what contribution a student's utterance is intended to make within the group's larger enterprise.	Say why this works. What does this mean? Who can make a claim and then tell us what their claim means?
Expanding Reasoning	Open up extra time and space in the conversation for student reasoning.	Does the idea work if I change the context? Use bigger numbers?

TNCore

4 - Appendix

Appendix

Tennessee Department of Education
Common Core Leadership Course 202

Appendix Table of Contents

Score	Development	Focus & Organization	Language	Conventions
4	In response to the task and the stimuli, the writing: • utilizes well-chosen, relevant, and sufficient evidence[1] from the stimuli to thoroughly and insightfully develop the topic. • thoroughly and accurately explains and elaborates on the evidence provided, demonstrating a clear, insightful understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains an effective and relevant introduction. • utilizes effective organizational strategies to create a unified whole and to aid in comprehension. • effectively clarifies relationships among ideas and concepts to create cohesion. • contains an effective and relevant concluding statement or section.	The writing: • illustrates consistent and sophisticated command of precise language, domain-specific vocabulary, and literary techniques[2] appropriate to the task. • illustrates sophisticated command of syntactic variety for meaning and reader interest. • utilizes sophisticated and varied transitional words and phrases. • effectively establishes and maintains a formal style and an objective tone.	The writing: • demonstrates consistent and sophisticated command of grade-level conventions of standard written English.[3] • may contain a few minor errors that do not interfere with meaning.
3	In response to the task and the stimuli, the writing: • utilizes relevant and sufficient evidence[1] from the stimuli to adequately develop the topic. • adequately and accurately explains and elaborates on the evidence provided, demonstrating a sufficient understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains a relevant introduction. • utilizes adequate organizational strategies to create a mostly unified whole and to aid in comprehension. • clarifies most relationships among ideas and concepts, but there may be some gaps in cohesion. • contains a relevant concluding statement or section.	The writing: • illustrates consistent command of precise language, domain-specific vocabulary, and literary techniques[2] appropriate to the task. • illustrates consistent command of syntactic variety for meaning and reader interest. • utilizes appropriate and varied transitional words and phrases. • establishes and maintains a formal style and an objective tone.	The writing: • demonstrates consistent command of grade-level conventions of standard written English.[3] • contains some minor and/or major errors, but the errors do not significantly interfere with meaning.
2	In response to the task and the stimuli, the writing: • utilizes mostly relevant but insufficient evidence[1] from the stimuli to partially develop the topic. Some evidence may be inaccurate or repetitive. • explains some of the evidence provided, demonstrating only a partial understanding of the topic and the stimuli. There may be some level of inaccuracy in the explanation.	In response to the task and the stimuli, the writing: • contains a limited introduction. • demonstrates an attempt to use organizational strategies to create some unification, but ideas may be hard to follow at times. • clarifies some relationships among ideas and concepts, but there are lapses in focus. • contains a limited concluding statement or section.	The writing: • illustrates inconsistent command of precise language, domain-specific vocabulary, and literary techniques.[2] • illustrates inconsistent command of syntactic variety. • utilizes basic or repetitive transitional words and phrases. • establishes but inconsistently maintains a formal style and an objective tone.	The writing: • demonstrates inconsistent command of grade-level conventions of standard written English.[3] • contains many errors that may significantly interfere with meaning.
1	In response to the task and the stimuli, the writing: • utilizes mostly irrelevant or no evidence[1] from the stimuli, or mostly/only personal knowledge, to inadequately develop the topic. Evidence is inaccurate or repetitive. • inadequately or inaccurately explains the evidence provided, demonstrating little understanding of the topic and the stimuli.	In response to the task and the stimuli, the writing: • contains no or an irrelevant introduction. • demonstrates an unclear organizational structure; ideas are hard to follow most of the time. • fails to clarify relationships among ideas and concepts; concepts are unclear and/or there is a lack of focus. • contains no or an irrelevant concluding statement or section.	The writing: • illustrates little to no use of precise language, domain-specific vocabulary, and literary techniques.[2] • illustrates little to no syntactic variety. • utilizes no or few transitional words and phrases. • does not establish or maintain a formal style and an objective tone.	The writing: • demonstrates limited command of grade-level conventions of standard written English.[3] • contains numerous and repeated errors that seriously impede meaning.

[1] Evidence includes facts, extended definitions, concrete details, quotations, or other information and examples as appropriate to the task and the stimuli.
[2] Literary techniques are only expected at grades 11-12.
[3] Conventions of standard written English include sentence structure, grammar, usage, spelling, capitalization, and punctuation.

ELA Phase I Writing Task Introduction

Intelligence is an elusive concept. Researchers have long studied the concept of intelligence, focusing their attentions on questions, such as: What is it? Can it be measured, and if so, how? What does it mean to be smart? Can we get smarter? What influences our intelligence? During this assessment, you will read two texts that delineate two perspectives about the concept of intelligence.

ELA Phase I Writing Task Texts

Two texts will be used with this set of writing tasks. The print texts are included in the accompanying text packet:

- Text 1: “The Secret to Raising Smart Kids” by Carol S. Dweck
- Text 2: “It’s Not Me, It’s You” by Annie Murphy Paul

ELA Phase I Writing Tasks

Two writing tasks have been provided:

- Analytic summary of Text 1
- Analysis of Texts1 and 2

2. Analysis

Please read "It's Not Me, It's You" by Annie Murphy Paul.[2] Paul is a journalist and author who writes about the biological and social sciences.

After you have read the text, write an essay that analyzes how Dweck and Paul each use and refine the meaning of the term *intelligence* over the course of their articles. Be sure to also discuss the similarities and differences between their definitions. Cite strong and thorough evidence from both texts to support your analysis. Follow the conventions of standard written English. Write your essay in the space provided in the next pages.

You may use this area for notes ONLY. Use the lined pages to write your essay.

[2] Paul, A.M. "It's not me, it's you." From *The New York Times*, 10/7/2012 © 2012 *The New York Times*. All rights reserved. Used by permission and protected by the Copyright Laws of the United States. The printing, copying, redistribution, or retransmission of this Content without express written permission is prohibited.

The Secret to Raising Smart Kids

Carol S. Dweck

Dweck, C.S. (2007). “The secret to raising smart kids.”

The Secret to Raising Smart Kids

by Carol S. Dweck

A brilliant student, Jonathan sailed through grade school. He completed his assignments easily and routinely earned As. Jonathan puzzled over why some of his classmates struggled, and his parents told him he had a special gift. In the seventh grade, however, Jonathan suddenly lost interest in school, refusing to do homework or study for tests. As a consequence, his grades plummeted. His parents tried to boost their son's confidence by assuring him that he was very smart. But their attempts failed to motivate Jonathan (who is a composite drawn from several children). Schoolwork, their son maintained, was boring and pointless.

Our society worships talent, and many people assume that possessing superior intelligence or ability—along with confidence in that ability—is a recipe for success. In fact, however, more than 30 years of scientific investigation suggests that an overemphasis on intellect or talent leaves people vulnerable to failure, fearful of challenges and unwilling to remedy their shortcomings.

The result plays out in children like Jonathan, who coast through the early grades under the dangerous notion that no-effort academic achievement defines them as smart or gifted. Such children hold an implicit belief that intelligence is innate and fixed, making striving to learn seem far less important than being (or looking) smart. This belief also makes them see challenges, mistakes and even the need to exert effort as threats to their ego rather than as opportunities to improve. It causes them to lose confidence and motivation when the work is no longer easy for them.

Praising children's innate abilities, as Jonathan's parents did, reinforces this mind-set, which can also prevent young athletes or people in the workforce and even marriages from living up to their potential. On the other hand, our studies show that teaching people to have a "growth mind-set," which encourages a focus on effort rather than on intelligence or talent, helps make them into high achievers in school and in life.

Grade 11–12/Text 1

The Opportunity of Defeat

I first began to investigate the underpinnings[1] of human motivation—and how people persevere after setbacks—as a psychology graduate student at Yale University in the 1960s. Animal experiments by psychologists Martin Seligman, Steven Maier and Richard Solomon of the University of Pennsylvania had shown that after repeated failures, most animals conclude that a situation is hopeless and beyond their control. After such an experience, the researchers found, an animal often remains passive even when it can affect change—a state they called learned helplessness.

People can learn to be helpless, too, but not everyone reacts to setbacks this way. I wondered: Why do some students give up when they encounter difficulty, whereas others who are no more skilled continue to strive and learn? One answer, I soon discovered, lay in people's beliefs about why they had failed.

In particular, attributing poor performance to a lack of ability depresses motivation more than does the belief that lack of effort is to blame. In 1972, when I taught a group of elementary and middle school children who displayed helpless behavior in school that a lack of effort (rather than lack of ability) led to their mistakes on math problems, the kids learned to keep trying when the problems got tough. They also solved many of the problems even in the face of difficulty. Another group of helpless children who were simply rewarded for their success on easy problems did not improve their ability to solve hard math problems. These experiments were an early indication that a focus on effort can help resolve helplessness and engender[2] success.

[1] **underpinnings:** foundations
[2] **engender:** produce or cause

Dweck, C.S. (2007). "The secret to raising smart kids." Reproduced with permission.

Grade 11–12/Text 1

Subsequent studies revealed that the most persistent students do not ruminate[3] about their own failure much at all but instead think of mistakes as problems to be solved. At the University of Illinois in the 1970s I, along with my then graduate student Carol Diener, asked 60 fifth graders to think out loud while they solved very difficult pattern-recognition problems. Some students reacted defensively to mistakes, denigrating their skills with comments such as "I never did have a good rememory," and their problem-solving strategies deteriorated.

Others, meanwhile, focused on fixing errors and honing their skills. One advised himself: "I should slow down and try to figure this out." Two schoolchildren were particularly inspiring. One, in the wake of difficulty, pulled up his chair, rubbed his hands together, smacked his lips and said, "I love a challenge!" The other, also confronting the hard problems, looked up at the experimenter and approvingly declared, "I was hoping this would be informative!" Predictably, the students with this attitude outperformed their cohorts in these studies.

Two Views of Intelligence

Several years later I developed a broader theory of what separates the two general classes of learners—helpless versus mastery-oriented. I realized that these different types of students not only explain their failures differently, but they also hold different "theories" of intelligence. The helpless ones believe that intelligence is a fixed trait: you have only a certain amount, and that's that. I call this a "fixed mind-set." Mistakes crack their self-confidence because they attribute errors to a lack of ability, which they feel powerless to change. They avoid challenges because challenges make mistakes more likely and looking smart less so. Like Jonathan, such children shun effort in the belief that having to work hard means they are dumb.

The mastery-oriented children, on the other hand, think intelligence is malleable and can be developed through education and hard work. They

[3] **ruminate:** think or ponder at length

want to learn above all else. After all, if you believe that you can expand your intellectual skills, you want to do just that. Because slipups stem from a lack of effort, not ability, they can be remedied by more effort. Challenges are energizing rather than intimidating; they offer opportunities to learn. Students with such a growth mind-set, we predicted, were destined for greater academic success and were quite likely to outperform their counterparts.

We validated these expectations in a study published in early 2007. Psychologists Lisa Blackwell of Columbia University and Kali H. Trzesniewski of Stanford University and I monitored 373 students for two years during the transition to junior high school, when the work gets more difficult and the grading more stringent, to determine how their mind-sets might affect their math grades. At the beginning of seventh grade, we assessed the students' mind-sets by asking them to agree or disagree with statements such as "Your intelligence is something very basic about you that you can't really change." We then assessed their beliefs about other aspects of learning and looked to see what happened to their grades.

As we had predicted, the students with a growth mind-set felt that learning was a more important goal in school than getting good grades. In addition, they held hard work in high regard, believing that the more you labored at something, the better you would become at it. They understood that even geniuses have to work hard for their great accomplishments. Confronted by a setback such as a disappointing test grade, students with a growth mind-set said they would study harder or try a different strategy for mastering the material.

The students who held a fixed mind-set, however, were concerned about looking smart with little regard for learning. They had negative views of effort, believing that having to work hard at something was a sign of low ability. They thought that a person with talent or intelligence did not need to work hard to do well. Attributing a bad grade to their own lack of ability, those with a fixed mind-set said that they would study less in the future, try

never to take that subject again and consider cheating on future tests.

Such divergent[4] outlooks had a dramatic impact on performance. At the start of junior high, the math achievement test scores of the students with a growth mind-set were comparable to those of students who displayed a fixed mind-set. But as the work became more difficult, the students with a growth mind-set showed greater persistence. As a result, their math grades overtook those of the other students by the end of the first semester—and the gap between the two groups continued to widen during the two years we followed them.

Along with Columbia psychologist Heidi Grant, I found a similar relation between mind-set and achievement in a 2003 study of 128 Columbia freshman premed students who were enrolled in a challenging general chemistry course. Although all the students cared about grades, the ones who earned the best grades were those who placed a high premium on learning rather than on showing that they were smart in chemistry. The focus on learning strategies, effort and persistence paid off for these students.

Confronting Deficiencies

A belief in fixed intelligence also makes people less willing to admit to errors or to confront and remedy their deficiencies in school, at work and in their social relationships. In a study published in 1999 of 168 freshmen entering the University of Hong Kong, where all instruction and coursework are in English, three Hong Kong colleagues and I found that students with a growth mind-set who scored poorly on their English proficiency exam were far more inclined to take a remedial English course than were low-scoring students with a fixed mind-set. The students with a stagnant[5] view of intelligence were presumably unwilling to admit to their deficit and thus passed up the opportunity to correct it.

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[4] **divergent:** widely differing
[5] **stagnant:** unchanging; not developing

A fixed mind-set can similarly hamper communication and progress in the workplace by leading managers and employees to discourage or ignore constructive criticism and advice. Research by psychologists Peter Heslin and Don VandeWalle of Southern Methodist University and Gary Latham of the University of Toronto shows that managers who have a fixed mind-set are less likely to seek or welcome feedback from their employees than are managers with a growth mind-set. Presumably, managers with a growth mind-set see themselves as works-in-progress and understand that they need feedback to improve, whereas bosses with a fixed mind-set are more likely to see criticism as reflecting their underlying level of competence. Assuming that other people are not capable of changing either, executives with a fixed mind-set are also less likely to mentor their underlings. But after Heslin, VandeWalle and Latham gave managers a tutorial on the value and principles of the growth mind-set, supervisors became more willing to coach their employees and gave more useful advice.

Mind-set can affect the quality and longevity of personal relationships as well, through people's willingness—or unwillingness—to deal with difficulties. Those with a fixed mind-set are less likely than those with a growth mind-set to broach problems in their relationships and to try to solve them, according to a 2006 study I conducted with psychologist Lara Kammrath of Wilfrid Laurier University in Ontario. After all, if you think that human personality traits are more or less fixed, relationship repair seems largely futile. Individuals who believe people can change and grow, however, are more confident that confronting concerns in their relationships will lead to resolutions.

Proper Praise

How do we transmit a growth mind-set to our children? One way is by telling stories about achievements that result from hard work. For instance, talking about math geniuses who were more or less born that way puts students in a fixed mind-set, but descriptions of great mathematicians who fell in love with math and developed amazing skills engenders a growth mind-set, our

Grade 11–12/Text 1

studies have shown. People also communicate mind-sets through praise. Although many, if not most, parents believe that they should build up a child by telling him or her how brilliant and talented he or she is, our research suggests that this is misguided.

In studies involving several hundred fifth graders published in 1998, for example, Columbia psychologist Claudia M. Mueller and I gave children questions from a nonverbal IQ test. After the first 10 problems, on which most children did fairly well, we praised them. We praised some of them for their intelligence: “Wow . . . that’s a really good score. You must be smart at this.” We commended others for their effort: “Wow . . . that’s a really good score. You must have worked really hard.”

We found that intelligence praise encouraged a fixed mind-set more often than did pats on the back for effort. Those congratulated for their intelligence, for example, shied away from a challenging assignment—they wanted an easy one instead—far more often than the kids applauded for their effort. (Most of those lauded for their hard work wanted the difficult problem set from which they would learn.) When we gave everyone hard problems anyway, those praised for being smart became discouraged, doubting their ability. And their scores, even on an easier problem set we gave them afterward, declined as compared with their previous results on equivalent problems. In contrast, students praised for their effort did not lose confidence when faced with the harder questions, and their performance improved markedly on the easier problems that followed. . . .

Dweck, C.S. (2007). “The secret to raising smart kids.” Reproduced with permission.

Grade 11–12/Text 1

It's Not Me, It's You

Annie Murphy Paul

It's Not Me, It's You

by Annie Murphy Paul

We've all been there: you feel especially smart and funny when talking to a particular person, only to feel hopelessly unintelligent and inarticulate in the presence of another.

You're not imagining things. Experiments show that when people report feeling comfortable with a conversational partner, they are judged by those partners and by observers as actually being more witty.

It's just one example of the powerful influence that social factors can have on intelligence. As parents, teachers and students settle into the school year, this work should prompt us to think about intelligence not as a "lump of something that's in our heads," as the psychologist Joshua Aronson puts it, but as "a transaction among people."

Mr. Aronson, an associate professor at New York University, has been a leader in investigating the effects of social forces on academic achievement. Along with the psychologist Claude Steele, he identified the phenomenon known as "stereotype threat." Members of groups believed to be academically inferior—African-American and Latino students enrolled in college, or female students in math and science courses—score much lower on tests when reminded beforehand of their race or gender.

The pair's experiments in the 1990s, and the dozens of studies by other researchers that followed, concluded that the performance of these students suffered because they were worried about confirming negative stereotypes about their group.

In a 1995 article in the *Journal of Personality and Social Psychology*, Professors Steele and Aronson found that black students performed comparably with white

Grade 11-12/Text 2

students when told that the test they were taking was “a laboratory problem-solving task.” Black students scored much lower, however, when they were instructed that the test was meant to measure their intellectual ability. In effect, the prospect of social evaluation suppressed these students’ intelligence.

Minorities aren’t the only ones vulnerable to stereotype threat. We all are. A group of people notably confident about their mathematical abilities—white male math and engineering majors who received high scores on the math portion of the SAT—did worse on a math test when told that the experiment was intended to investigate “why Asians appear to outperform other students on tests of math ability.”

And in a study published earlier this year in the journal *Learning and Individual Differences*, high school students did worse on a test of spatial skills when told that males are better at solving spatial problems because of genetic differences between males and females. The girls were anxious about confirming assumptions about their gender, while the boys were anxious about living up to them.

The evolving literature on stereotype threat shows that performance is always social in nature. Even alone in an exam room, we hear a chorus of voices appraising, evaluating, passing judgment. As social creatures, humans are strongly affected by what these voices say.

In a 2002 study led by Roy F. Baumeister, a psychologist now at Florida State University, participants were given an I.Q. test and then a personality inventory. Some of the participants were randomly selected to receive false feedback from the personality inventory, informing them that they were “the sort of people who would end up alone in life.”

The participants then took another test. Those who had been told they would be loveless and friendless in the future answered significantly fewer questions correctly than on the earlier test.

Grade 11-12/Text 2

If the threat of social exclusion can decrease the expression of intelligence, so can a perceived threat to physical safety. It's common to blame disadvantaged children's poor academic performance on their "environment." By this we usually mean longstanding characteristics of their homes and neighborhoods. But research on the social aspects of intelligence suggests that much more immediate aspects of kids' surroundings can also affect their I.Q.'s.

In a study conducted on the troubled South Side of Chicago, for example, students whose neighborhoods had been the site of a homicide within the previous two weeks scored half a standard deviation lower on a test of intelligence.

This research has important implications for the way we educate our children. For one thing, we should replace high-stakes, one-shot tests with the kind of unobtrusive and ongoing assessments that give teachers and parents a more accurate sense of children's true abilities. We should also put in place techniques for reducing anxiety and building self-confidence that take advantage of our social natures. And we should ensure that the social climate at our children's schools is one of warmth and trust, not competition and exclusion.

Professor Aronson calls the doltishness induced by an uncomfortable social situation "conditional stupidity." We should use that insight to create the conditions for brilliance.

Grade 11-12/Text 2

GRADES 11–12
TRAINING SET
ITEM 2

TRAINING SET DIRECTIONS

After you have read and reviewed the texts, anchor responses and annotations for this item, you may complete this training set.

This item-specific training set was developed to help you practice scoring responses before you begin to score your students' work. Unlike the individual trait anchors, you will review these responses for all four traits. Responses within the training set have also been placed in random order, unlike anchor responses.

There are five responses in the training set. After reading each response, write down your score for all four traits (Development, Focus & Organization, Language, and Conventions). There is space available after each response for you to provide a score. Once you have finished scoring, you may go on to the next response and repeat this process.

You are highly encouraged to use the anchor responses and appropriate rubrics for this item as you move through the training set and score responses. Keep in mind that your copies of the texts may also help in assessing these training responses.

An answer key has been provided on the last page of this training set. Once you have finished scoring the training set, you may compare your score with the true score for each response.

Training Set: Response #1

Everyone wants a smart kid. Everyone wants their child to do the best in school and have a successful future. What if your child doesn't do well? What if he/she isn't the "smart" kid you always wanted? Perhaps looking at children's individual attitudes toward intelligence and academic performance can provide some answers to these questions. Annie Murphy Paul and Carol S. Dweck both researched the different learning techniques students use in order to help benefit the learners of the future.

Intelligence is a gift. Some children are just smarter than others. However, the two authors recently stated have two different views on what "intelligence" is. Carol S. Dweck believes intelligence can stem from how you view your learning. She divided her students into two groups which were determined by the underlying reason that children receive praise; effort or ability. Dweck states that, "attributing poor performance to a lack of ability depresses motivation more than does the belief that lack of effort is to blame." The first group, praised for their natural ability or talent, are easily discouraged when they can't figure out a problem. The resulting fixed mind-set causes children to, "avoid challenges because challenges make mistakes more likely and looking smart less so" and also to, "shun effort in the belief that having to work hard means they are dumb." This is only one of the two attitudes that Dweck describes. The other group, praised for effort and gumption, acquired a growth mind-set, meaning they were challenged when faced with a difficult problem but continued to work until they figured it out. In regards to students with a growth mind-set, Dweck goes on to say, "the most persistent students do not ruminate about their failure much at all but instead think of mistakes as problems to be solved." The primary difference here is that the fixed mind-set group views intelligence as static and unchangeable while the growth mind-set group considers it the result of diligent effort and perseverance. In other words, as my volleyball coach would say, "Hard work beats talent when talent doesn't work hard." Essentially, a child's self-motivation (or lack of it) can make a significant difference in how well he/she might do on any academic task.

Alternatively, Annie Murphy Paul believed intelligence was much more dependent on situational factors. These factors, such as race or gender, fall into the category of what associate professor Joshua Aronson calls "stereotype threat." When told that the questions were "testing your intelligence" or "males score higher than females," each group that had been cast as inferior by comparison typically scored lower. This can be considered a sort of self-fulfilling prophecy. Paul cites a study to illustrate this point, saying, "…black students performed comparably with white students when told that the test they were taking was 'a laboratory problem-solving task.' Black students scored

much lower, however, when they were instructed that the test was meant to measure their intellectual ability." Rather than focusing on the task at hand, these children have become distracted by preconceived notions about their ability, and unfortunately, their performance suffers as a result. Paul clarifies this point saying, "In effect, the prospect of social evaluation suppressed these students' intelligence." It seems that the seeds of self-doubt are always within us, but Paul is showing just how easy it can be to make them grow into a shadowy forest of apprehension. As Paul points out, "Minorities aren't the only ones vulnerable to stereotype threat. We all are." One study instilled doubt in certain participants, regardless of race or gender. Following an I.Q. test and personality inventory, some participants were, "randomly selected to receive false feedback from the personality inventory, informing them that they were 'the sort of people who would end up alone in life.'" After this disheartening revelation, another I.Q. test was administered and "Those who had been told they would be loveless and friendless in the future answered significantly fewer questions correctly than on the earlier test." The key lesson here is that children will perform better if they are doing so in a comfortable environment, what Paul calls a social climate "of warmth and trust, not competition and exclusion." She further explains that a beneficial atmosphere for education, "should also put in place techniques for reducing anxiety and building self-confidence to take advantage of our social natures." Although most of the studies cited in this text show a negative result from social influences, Paul argues that positive results can be yielded as well.

Both Dweck and Paul do have something in common about their studies despite their differences recently brought up. Both mentioned praise in their studies. In Dweck's study, she said, "we found intelligence praise encouraged a fixed mind-set more often than did pats on the back for effort." Dweck was referring to praising a child after working out a hard problem and saying he/she succeeded by virtue of "being smart" rather than "working hard." Conversely, Paul talked about how stereotypes or even simple misinformation can affect how well individuals perform on any given task. This view is condensed in her statement that, "performance is always social in nature," and that, "the threat of social exclusion can decrease the expression of intelligence." Both authors talked about intelligence and how praise can negatively or positively affect a child's perception of his/her own ability. Dweck and Paul would almost certainly agree that children learn best not when worrying about their GPA or someone else's expectations, but rather when they simply focus on learning for the sake of learning. By applying the

methods and theories outlined in these two articles, the intelligence levels of future learners can continue to grow and advance limitlessly.

SCORES
Development:
Focus & Organization:
Language:
Conventions:

Training Set: Response #2

Both Dweck and Paul understand intelligence but, have very specific differences in their own perspectives. For instance, Paul considers intelligence more lik a social transaction among people. Dweck on the other hand, bases intelligence on classes with categories such as; gender or race. To most Dweck's is more toward a stereotype, but had ran several statistics to back this theory up. One of those is around line 26 where black students scored much lower than most. Paul's is different in the fact that is based more on your rebutation or reception among others. For example lines 5 and 6 talk about how people feel different among others or while being judged.

SCORES
Development:
Focus & Organization:
Language:
Conventions:

Training Set: Response #3

In their essays, Dweck and Paul make a point that intelligence is greatly affected by outside influences. Dweck states that intelligence is affected by the type of praise a child recieves, while Paul states that intelligence is affected by social influences such as stereotypes. They both show how the word intelligence can't have a set meaning, but is abstract and can be described in many different ways. Both studies were similar in the outside influence being a factor of intelligence, one giving praise and the other derogatory comments. This is the main difference, because even though they are opposite ways of speaking, both make the students feel self-conscious & worried about how they will be looked at. Dweck's theoury of "fixed mind-set," however also shows that the students are less likely to try to do well where as Paul's theory just shows the student being to self-conscious to focus. The structures of their essays are also similar as they both lead with a situation, move on to the point of intelligence, show studies to support their theories, and then suggest ways to avoid either "fixed mind-set" or "conditional stupidity."

The overall views of Dweck and Paul are very similar in how intelligence is affected, but different in the specifics of what intelligence is affected by such as praise or stereotyping.

SCORES
Development:
Focus & Organization:
Language:
Conventions:

Training Set: Response #4

The word "intelligence" was used in two similar, but yet very different ways over the course of these two texts. Carol S. Dweck used it as something molded mainly by how a person was raised and his/her attitude. With Dweck, the compliments a child is given, when it comes to school work, for example, can change that child's confidence, which also changes intelligence. Annie Murphy Paul, however, used it as how a person feels at a particular point and time. If a person feels comfortable, according to Paul's definition, his/her IQ can be relatively higher than if he/she were in an uncomfortable position. There are some similarities between the two authors' theories in regards to intelligence, but for the most part, they have very contrasting ideas about the subject.

In Dweck's "The Secret to Raising Smart Kids," she talks about her ideas of intelligence in kids and what can affect it, negatively and positively. She defines two different ways of thinking about one's own intelligence, called a "fixed mind-set" and a "growth mind-set." Kids with a fixed mind-set tend to hold themselves back, while others who develop a growth mind-set tend to want to advance. Dweck backs up this theory stating, "Confronted by a setback such as a disapointing test grade, students with a growth mind-set said they would study harder or try a different strategy for mastering the material." On the opposite side of the mind-set spectrum, Dweck continues, "Attributing a bad grade to their own lack of ability, those with a fixed mind-set said that they would study less in the future, try never to take that subject again and consider cheating on future tests." It's clear that most parents, and people in general, would prefer that children have an attitude more closely resembling the growth mind-set than the fixed mind-set. In a nutshell, Dweck defines intelligence as a mental mind-set that can be changed by how one think about one's own intelligence.

In Paul's "It's Not, It's You," intelligence is described a little bit differently. Instead of a mind-set, Paul talks about how who one is interacting with can alter one's intelligence. For example, one might think oneself smarter while talking to a friend rather than talking to a superior. Paul makes this clear early in her article saying, "Experiments show that when people report feeling comfortable with a conversational partner, they are judged by those partners and by observers as actually being more witty." Paul did a study on the bad side of South Chicago and found that if there were a murder in a child's area, he/she didn't score as high as he/she normally would for a couple weeks. There is a statement in the passage that says, "We should also put in place techniques for reducing anxiety and building self-confidence that take advantage of our social natures." What that is saying is that we need to find a way to cure ourselves of anxiety so we can focus as much as we can. When children tell themselves that they are going to fail a test, they tend to do bad

on it, but when they're optimistic about it, it reassures them of their intelligence and they can do much better.

Confidence plays a big role in both definitions. If a person is comfortable, his/her confidence should skyrocket and so should his/her IQ, according to Paul. The same is with Dweck. If a student's confidence isn't put down every time he/she makes a mistake, he/she will be more able to focus on work and his/her IQ should go up. Both defenitions have huge similarities and huge differences, but overall they say the same thing. Even though Dweck and Paul have different ideas about how people think about intelligence, both do agree on one thing: intelligence is not set. One's level of intelligence can change depending on who one is talking to and how one thinks about it. No one is just born with a certain level of intelligence; it can fluctuate depending on certain factors. You're only as intelligent as the people around you and yourself let you be.

SCORES
Development:
Focus & Organization:
Language:
Conventions:

Training Set: Response #5

Dweck and Paul both have strong opinions on the idea of intelligence and how one might obtain it. Dweck thought the effort put forth in learning was superior to natural ability. Paul was straight forward in explaining that intelligence is more likely beheld in comfortable environments. Racial and stereotypical aspects can affect a learning environment when seen in a negative light.

Dweck bases intelligence on effort while Paul associates it with uncomfortable racial stereotypes. Both highlighted the importance of effort and the reasons to stay away from rewarding a student based on ability or stereotype. The differences were the sources of influence. Dweck explains that to reward an accomplished student builds his/her standards too high and his/her arrogance blinds them of ability, especially when placed in front of an obstacle. paul states that students are more likely to put forth effort when you disregard their race or gender and refrain from discouraging their neutral testing environment.

Both writers reinforce the separation between ability and effort, supporting that intelligence is not defined by who you are as a person, but how much value and effort you enforce on yourself. Basically, teachers, parents, and other overseers have a unique opportunity to influence their children or students' grades, positively or negatively. Both writers encourage a neutral, warm environment that supports hard work and effort. This isn't just for the classroom, but it is crucial to enforce equality in every environment. Paul states, "If the threat of social exclusion can decrease the expression of intelligence, so can a perceived threat to physical safety." (line 53)

There has to be a compromise between recognizing ability and supporting effort, especially in a learning environment. Although the authors varied their reasons for this academic discrimination, the results are the same, and obvious for that matter.

SCORES
Development:
Focus & Organization:
Language:
Conventions:

- **Training Set: Response #1:**
  - **Development:** 4
  - **Focus and Organization:** 4
  - **Language:** 4
  - **Conventions:** 4

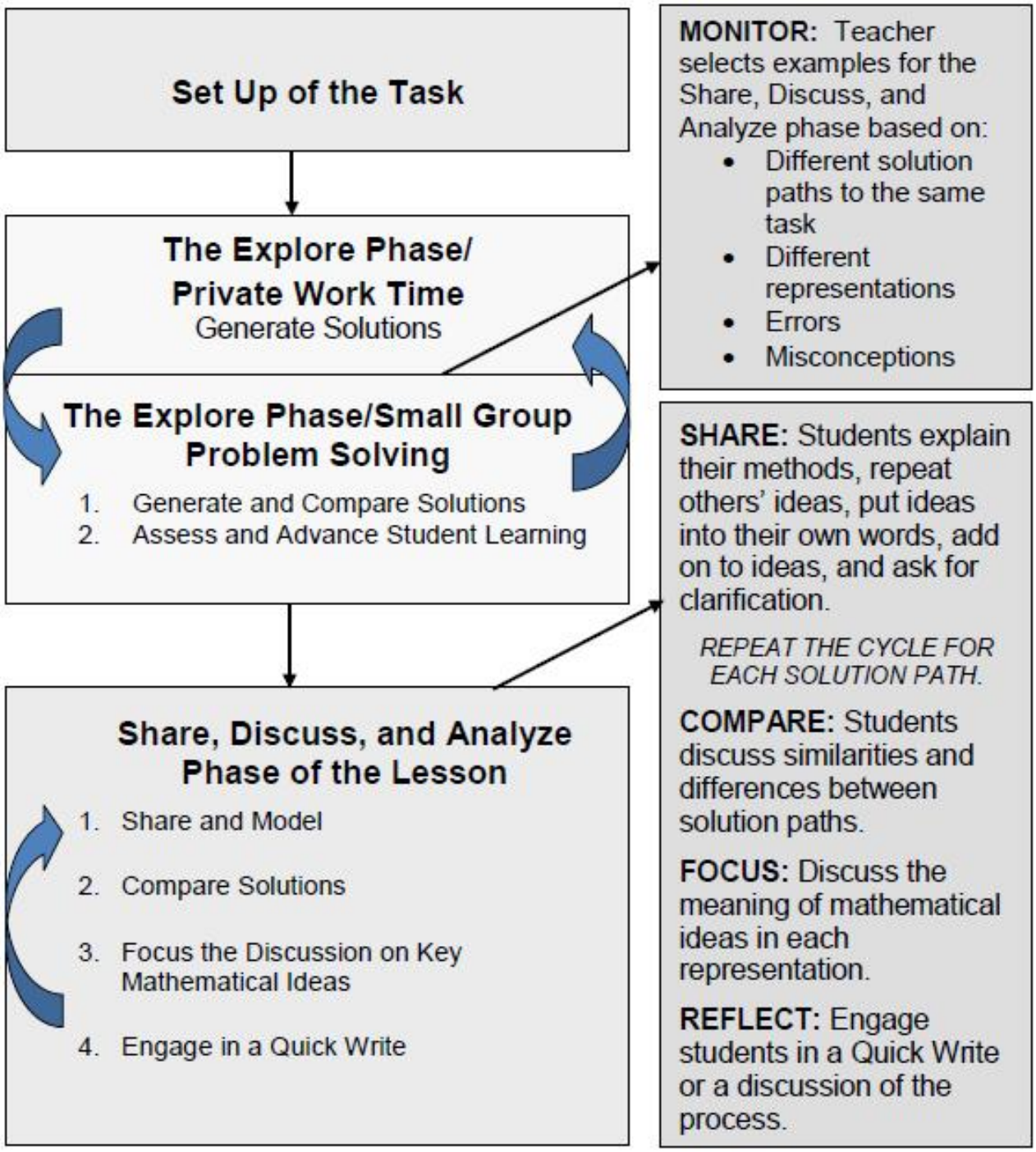
- **Training Set: Response #2:**
  - **Development:** 1
  - **Focus and Organization:** 1
  - **Language:** 2
  - **Conventions:** 2

- **Training Set: Response #3:**
  - **Development:** 2
  - **Focus and Organization:** 2
  - **Language:** 3
  - **Conventions:** 3

- **Training Set: Response #4:**
  - **Development:** 3
  - **Focus and Organization:** 3
  - **Language:** 4
  - **Conventions:** 4

- **Training Set: Response #5:**
  - **Development:** 1
  - **Focus and Organization:** 2
  - **Language:** 3
  - **Conventions:** 3

Structures and Routines of a Lesson



Institute for Learning

Accountable Talk® Features and Indicators

Accountability to the Learning Community

- Active participation in classroom talk
- Listen attentively
- Elaborate and build on each other's ideas
- Work to clarify or expand a proposition

Accountability to Knowledge

- Specific and accurate knowledge
- Appropriate evidence for claims and arguments
- Commitment to getting it right

Accountability to Rigorous Thinking

- Synthesize several sources of information
- Construct explanations and test understanding of concepts
- Formulate conjectures and hypotheses
- Employ generally accepted standards of reasoning
- Challenge the quality of evidence and reasoning

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TNCore

Accountable Talk® Moves

Talk Move	Function	Example
	To Ensure Purposeful, Coherent, and Productive Group Discussion	
Marking	Direct **attention** to the value and importance of a student's contribution.	It is important to say describe to compare the size of the pieces and then to look at how many pieces of that size.
Challenging	Redirect a question back to the students or use students' contributions as a source for further challenge or query.	Let me challenge you: Is that always true?
Revoicing	Align a student's explanation with content or connect two or more contributions with the goal of advancing the discussion of the content.	You said 3, yes there are three columns and each column is 1/3 of the whole
Recapping	Make public in a concise, coherent form, the group's achievement at creating a shared understanding of the phenomenon under discussion.	Let me put these ideas all together. What have we discovered?
	To Support Accountability to Community	
Keeping the Channels Open	Ensure that students can hear each other, and remind them that they must hear what others have said.	Say that again and louder. Can someone repeat what was just said?
Keeping Everyone Together	Ensure that everyone not only heard, but also understood, what a speaker said.	Can someone add on to what was said? Did everyone hear that?
Linking Contributions	Make explicit the relationship between a new contribution and what has gone before.	Does anyone have a similar idea? Do you agree or disagree with what was said? Your idea sounds similar to his idea.
Verifying and Clarifying	Revoice a student's contribution, thereby helping both speakers and listeners to engage more profitably in the conversation.	So are you saying..? Can you say more? Who understood what was said?
	To Support Accountability to Knowledge	
Pressing for Accuracy	Hold students accountable for the accuracy, credibility, and clarity of their contributions.	Why does that happen? Someone give me the term for that.
Building on Prior Knowledge	Tie a current contribution back to knowledge accumulated by the class at a previous time.	What have we learned in the past that links with this?
	To Support Accountability to Rigorous Thinking	
Pressing for Reasoning	Elicit evidence to establish what contribution a student's utterance is intended to make within the group's larger enterprise.	Say why this works. What does this mean? Who can make a claim and then tell us what their claim means?
Expanding Reasoning	Open up extra time and space in the conversation for student reasoning.	Does the idea work if I change the context? Use bigger numbers?

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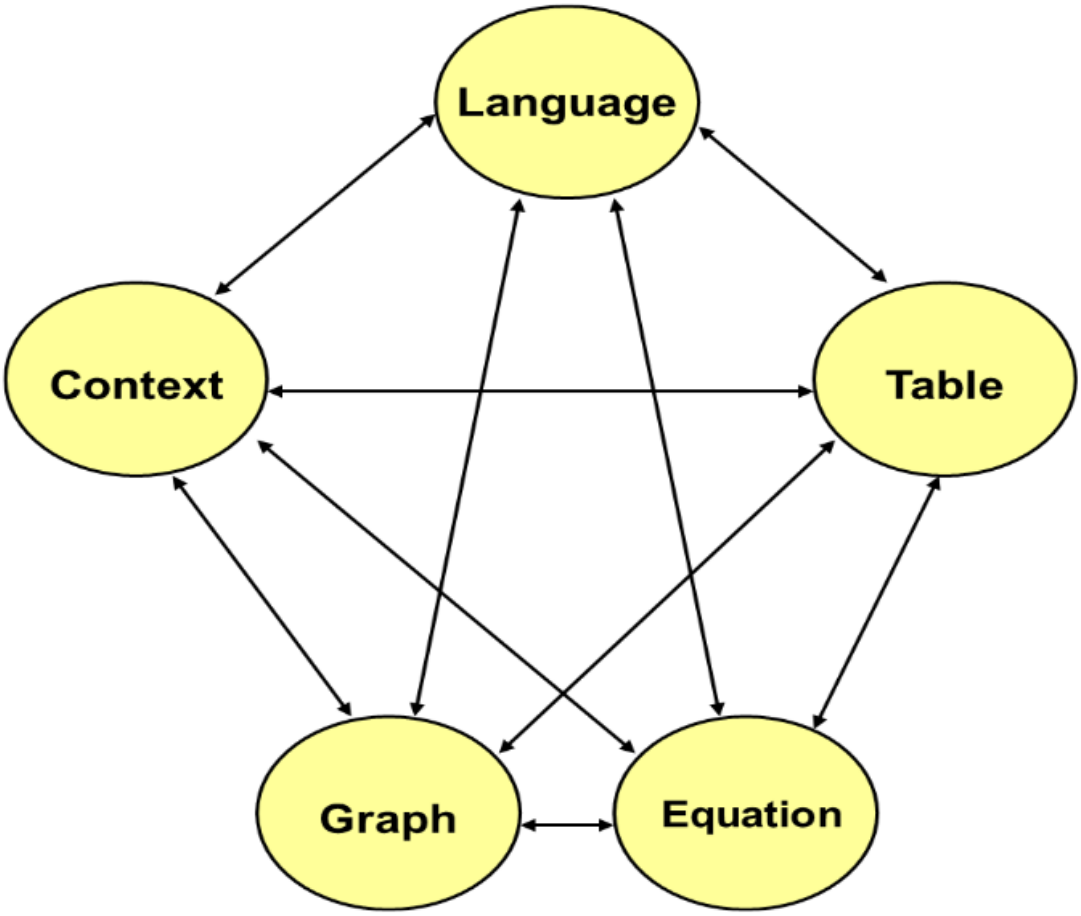
TNCore

Accountable Talk® Moves

Talk Move	Function	Example
To Ensure Purposeful, Coherent, and Productive Group Discussion		
Marking	Direct attention to the value and importance of a student's contribution.	That's an important point.
Challenging	Redirect a question back to the students or use students' contributions as a source for further challenge or query.	Let me challenge you: Is that always true?
Revoicing	Align a student's explanation with content or connect two or more contributions with the goal of advancing the discussion of the content.	S: 4 + 4 + 4. You said three groups of four.
Recapping	Make public in a concise, coherent form, the group's achievement at creating a shared understanding of the phenomenon under discussion.	Let me put these ideas all together. What have we discovered?

Multiple Representations



Adapted from Lesh, Post, & Behr, 1987

The Mathematical Task Analysis Guide

Lower-Level Demands

Memorization Tasks

- Involves either producing previously learned facts, rules, formulae, or definitions OR committing facts, rules, formulae, or definitions to memory.
- Cannot be solved using procedures because a procedure does not exist or because the time frame in which the task is being completed is too short to use a procedure.
- Are not ambiguous – such tasks involve exact reproduction of previously seen material and what is to be reproduced is clearly and directly stated.
- Have no connection to the concepts or meaning that underlie the facts, rules, formulae, or definitions being learned or reproduced.

Procedures Without Connections Tasks

- Are algorithmic. Use of the procedure is either specifically called for or its use is evident based on prior instruction, experience, or placement of the task.
- Require limited cognitive demand for successful completion. There is little ambiguity about what needs to be done and how to do it.
- Have no connection to the concepts or meaning that underlie the procedure being used.
- Are focused on producing correct answers rather than developing mathematical understanding.
- Require no explanations, or explanations that focus solely on describing the procedure that was used.

Higher-Level Demands

Procedures With Connections Tasks

- Focus students' attention on the use of procedures for the purpose of developing deeper levels of understanding of mathematical concepts and ideas.
- Suggest pathways to follow (explicitly or implicitly) that are broad general procedures that have close connections to underlying conceptual ideas as opposed to narrow algorithms that are opaque with respect to underlying concepts.
- Usually are represented in multiple ways (e.g., visual diagrams, manipulatives, symbols, problem situations). Making connections among multiple representations helps to develop meaning.
- Require some degree of cognitive effort. Although general procedures may be followed, they cannot be followed mindlessly. Students need to engage with the conceptual ideas that underlie the procedures in order to successfully complete the task and develop understanding.

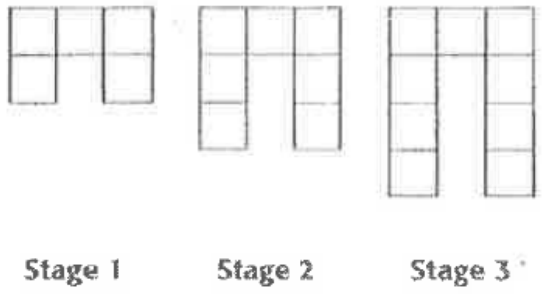
Doing Mathematics Tasks

- Requires complex and non-algorithmic thinking (i.e., there is not a predictable, well-rehearsed approach or pathway explicitly suggested by the task, task instructions, or a worked-out example).
- Requires students to explore and to understand the nature of mathematical concepts, processes, or relationships.
- Demands self-monitoring or self-regulation of one's own cognitive processes.
- Requires students to access relevant knowledge and experiences and make appropriate use of them in working through the task.
- Requires students to analyze the task and actively examine task constraints that may limit possible solution strategies and solutions.
- Requires considerable cognitive effort and may involve some level of anxiety for the student due to the unpredictable nature of the solution process required.

Mathematics Teaching in the Middle School. Also in: Stein, Smith, Henningsen, & Silver (2000). Implementing standards-based mathematics instruction: A casebook for professional development, p. 16. New York: Teachers College Press.

Surprising Squares Task

1. Build stages 4 and 5 with square tiles. Draw stages 4 and 5.



Stage 1 Stage 2 Stage 3

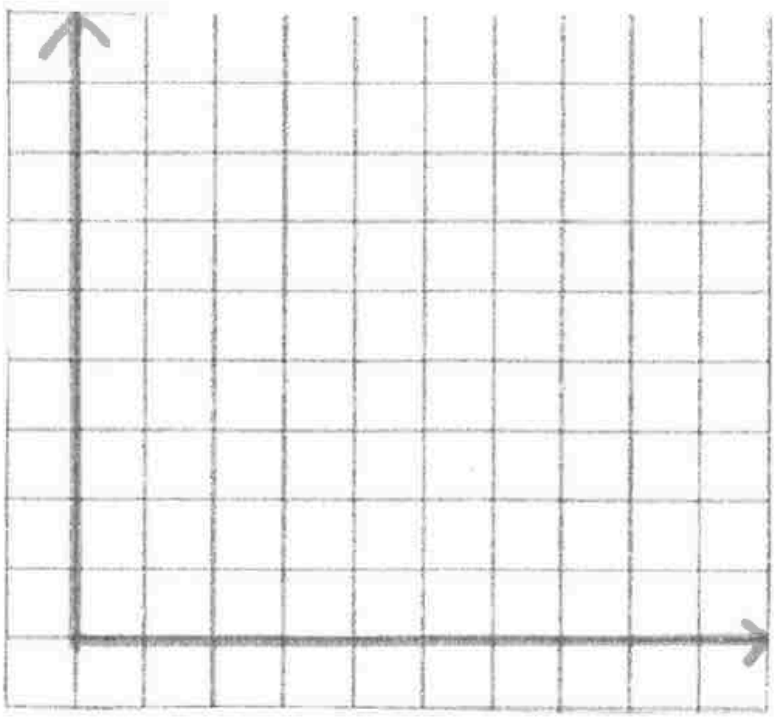
2. Use complete sentences to describe three different patterns you notice.

3. Create a table to compare the stage number to the number of pieces in each stage. What patterns do you notice in the table?

Stage Number	Number of Squares	Ordered Pair (Stage #, # of pieces)

4. Write an equation that will work for any stage number. Explain how you know your equation works.

5. Graph the data from your table. Give your graph a title. Label each axis.



6. Connie thinks that stage 10 will have 25 squares in it. Do you agree or disagree with Connie? Why? Justify your thinking with some mathematics.

7. How many squares will be in stage 100? How do you know? Use some math to justify your thinking.

8. Terrence built a surprising square with 83 square tiles in it. What stage is this? How do you know?

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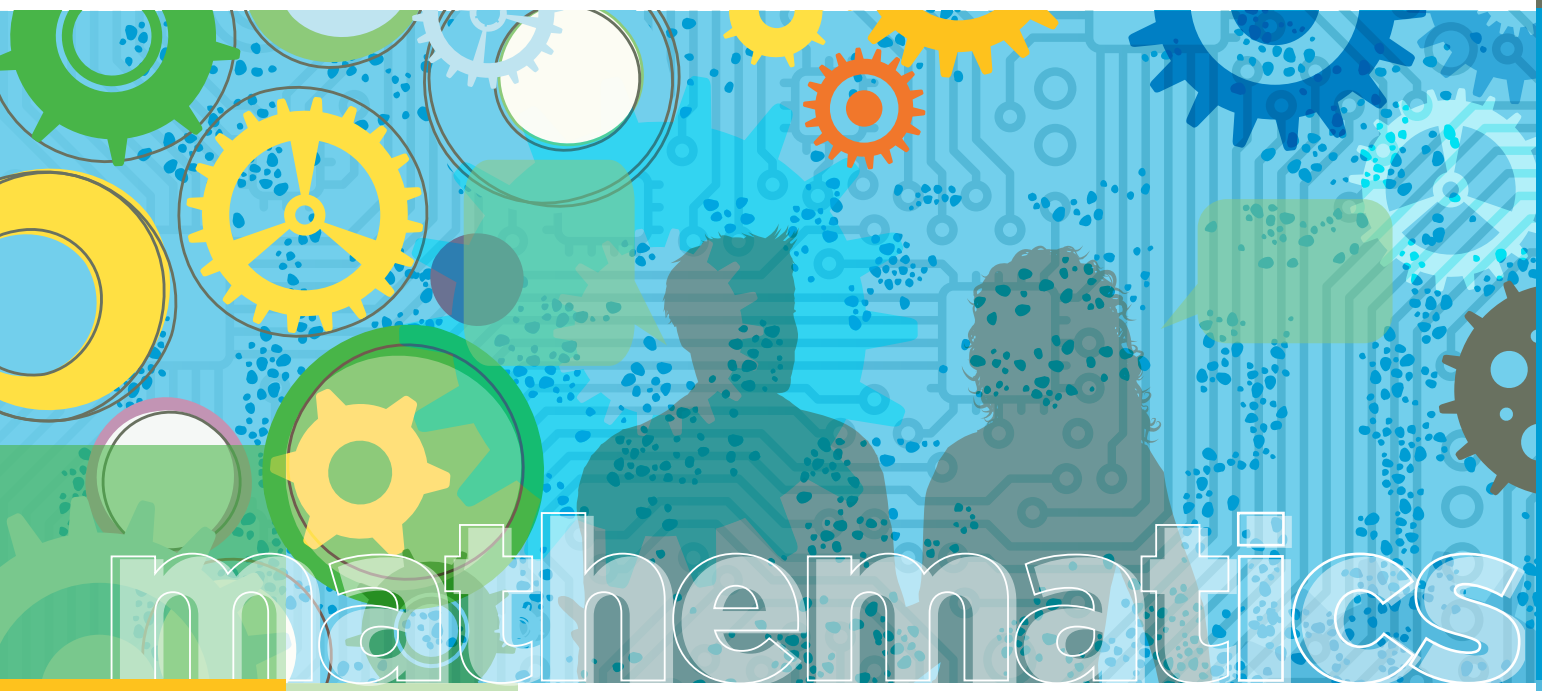


Algebra 1

Creating and Interpreting Functions

A SET OF RELATED LESSONS

UNIVERSITY OF PITTSBURGH

Table of Contents

Introduction

Tasks and Lesson Guides

Name_____

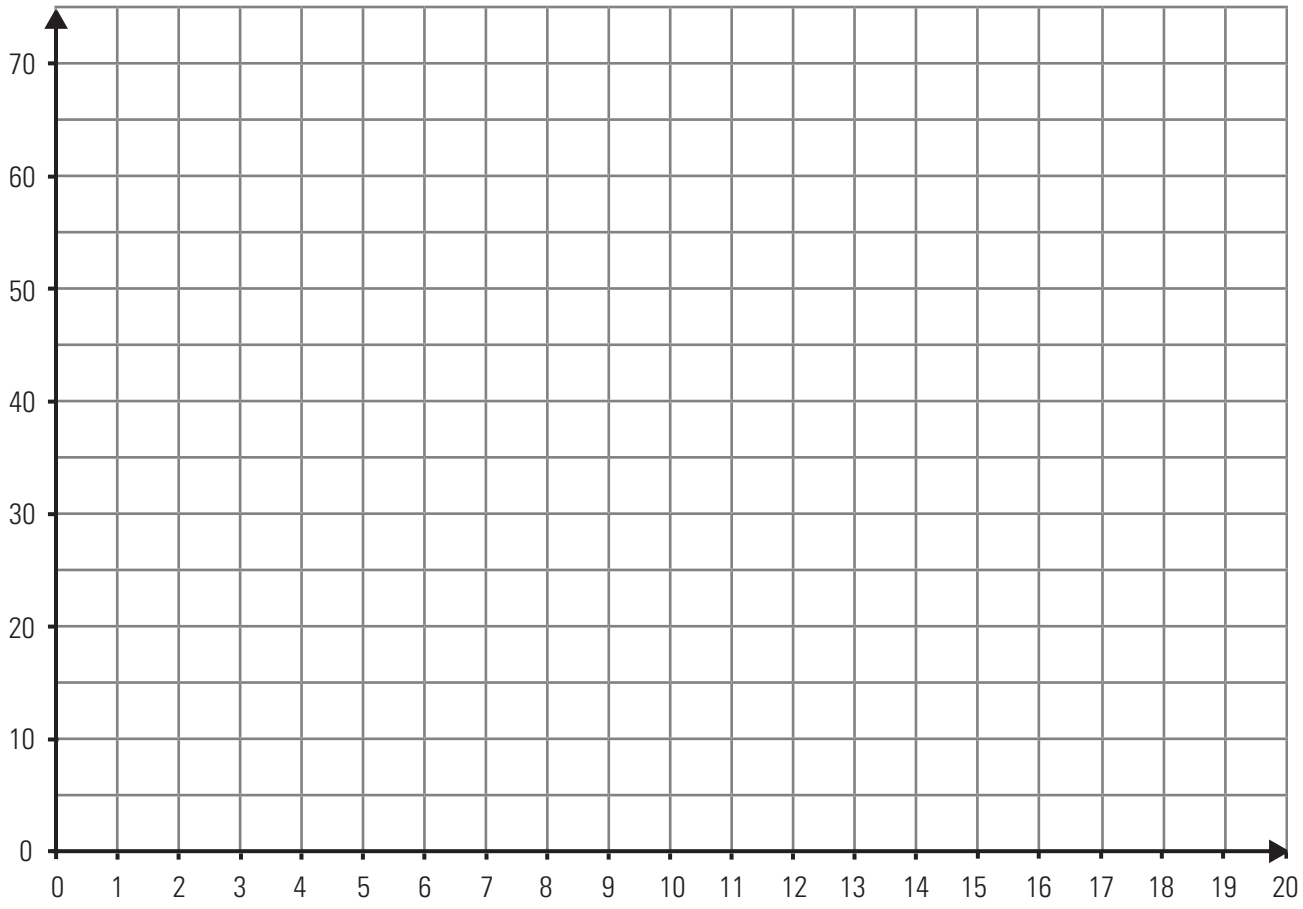
TASK 1

Joe's on the Beach Ice Cream

At Joe's on the Beach, single-scoop ice cream cones sell for $2.99 and ice cream cakes sell for $24.99. Rosa buys an ice cream cake for her party. She also decides to buy a single-scoop cone for each of her friends.

1. Write a function that can be used to determine the cost *(y)* of a cake and any number of cones *(x)* that Rosa buys. Explain the meaning of the terms in your function.

2. Sketch a graph that models the problem situation. Explain how you know your graph models the problem situation.



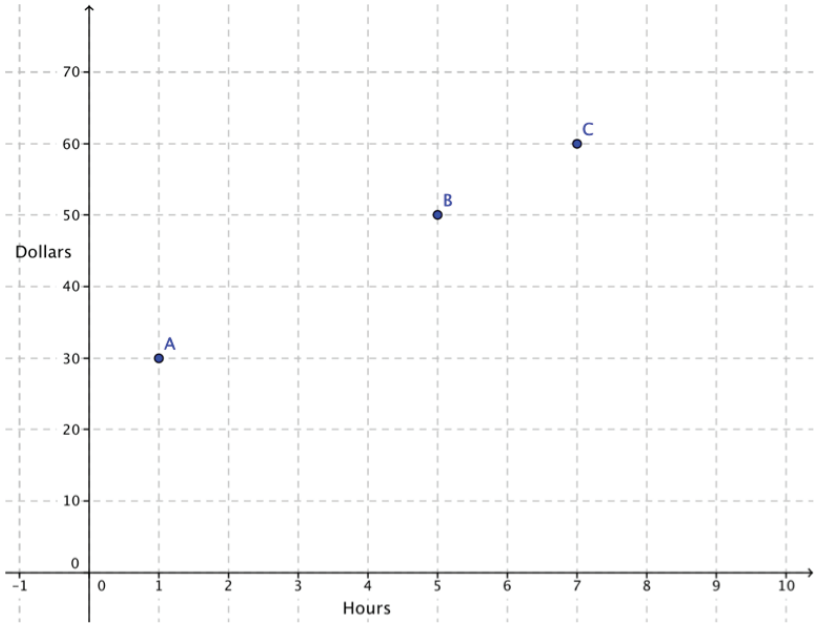
3. How does the total cost increase with the number of cones bought? How does this appear in the function and the graph?

TASK 2

Name_____

Jose's Surfboard

Jose rents a surfboard for the day from a company that charges by the hour. The graph below shows the cost of renting a surfboard for different amounts of time.



1. What is the rental rate per hour for the surfboard? Explain your reasoning.

2. If the cost continues at this rate, calculate the cost of renting a surfboard for 12 hours. Show all work and explain your reasoning.

3. Calculate the number of hours Jose surfs if the rental cost is $150.00. Show all work and explain your reasoning.

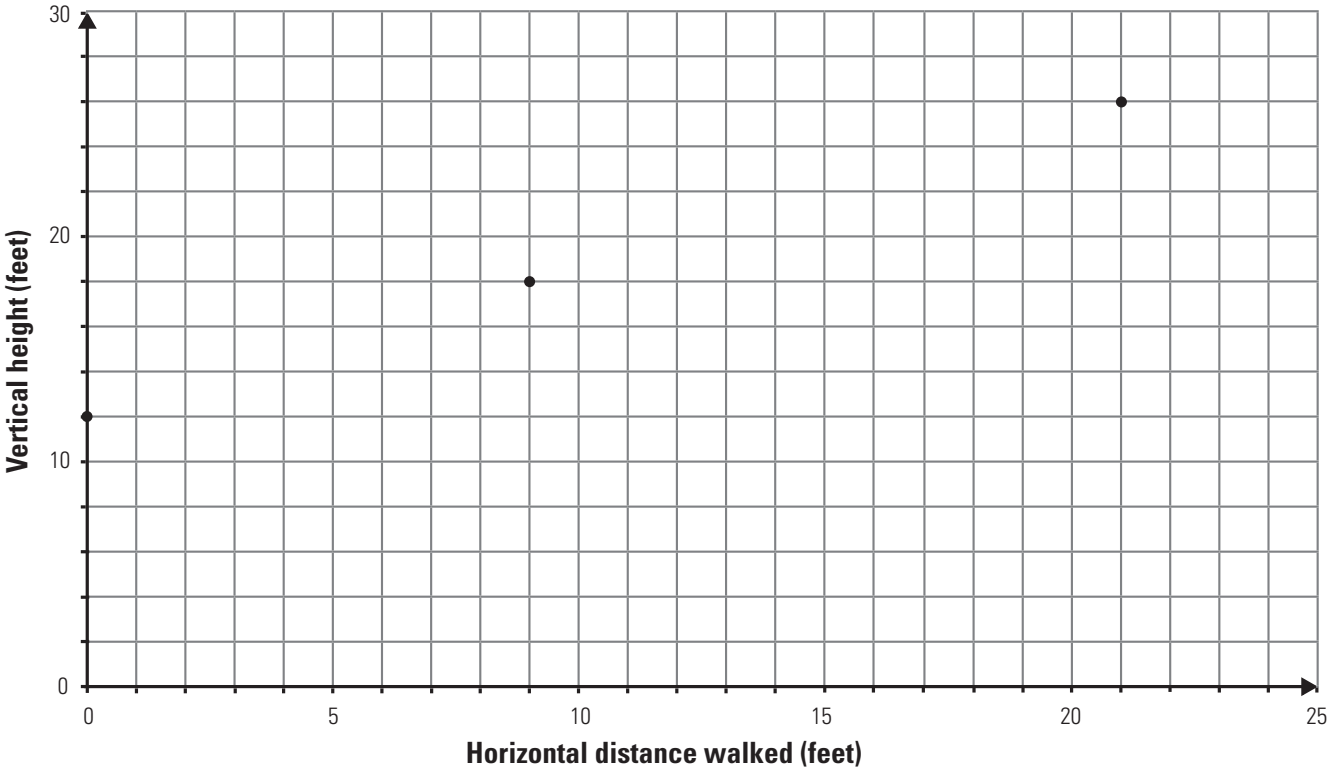
4. Is the domain of the function the same as the domain of the problem situation? Explain your reasoning.

TASK 3

Name_____

Ocoee Sand Dunes

A state park near Jose's hotel has very high sand dunes that increase in elevation at a constant rate. The graph shows Jose's elevation at various points as he climbs one of the sand dunes.



1. Explain how you know that the function $h(x) = \frac{2}{3}x + 12$ correctly models this problem situation.

2. A park ranger says that for every 5 feet Jose travels in a horizontal direction, he climbs 4 feet vertically. Do you agree or disagree with this statement? Justify your answer mathematically.

3. A student claims that the domain of this problem situation is [0, 9, 21] and the range is [12, 18, 26]. Do you agree or disagree? Explain your reasoning.

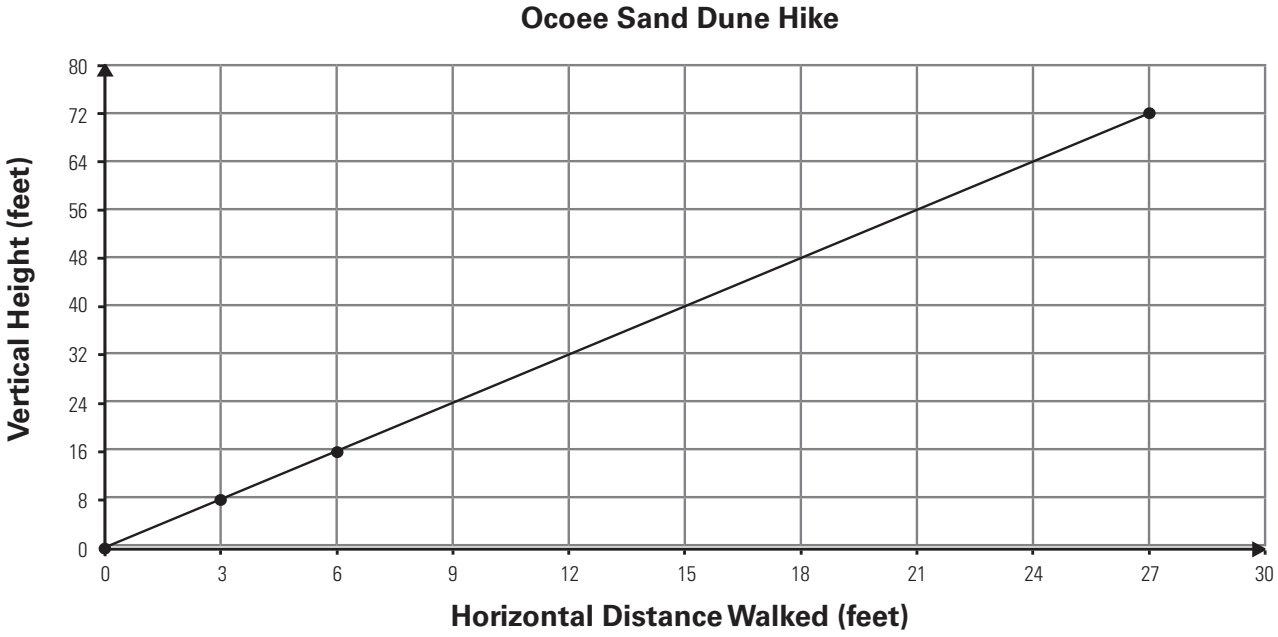
TASK 4

Name_____

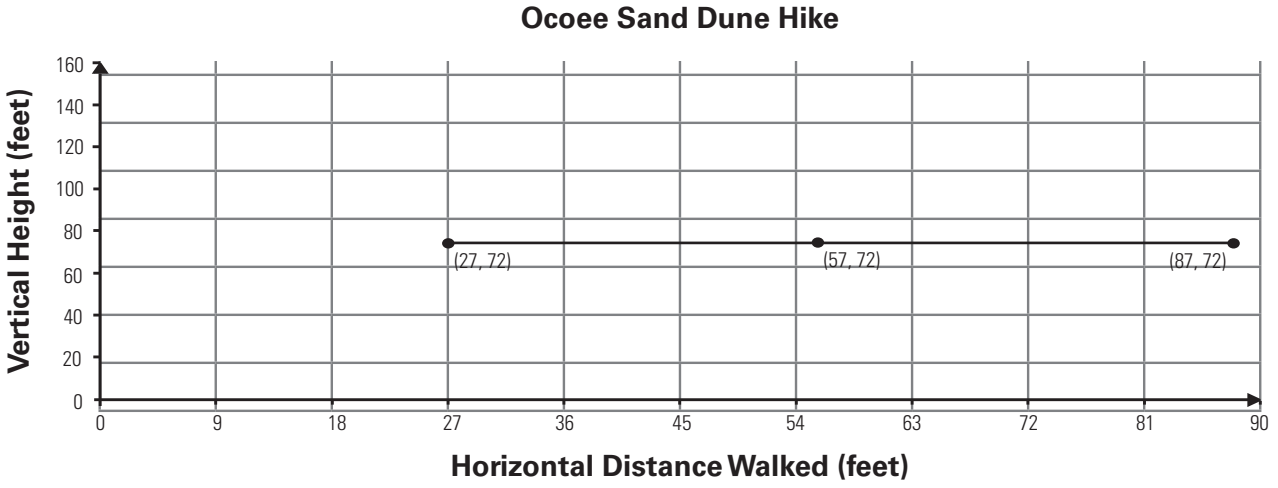
More Sand Dunes

Jose hikes a different dune the following week. He starts at sea level.

1. Determine the equation that represents this section of the new dune shown on the graph. Explain where the rate of change appears in the graph and the equation.

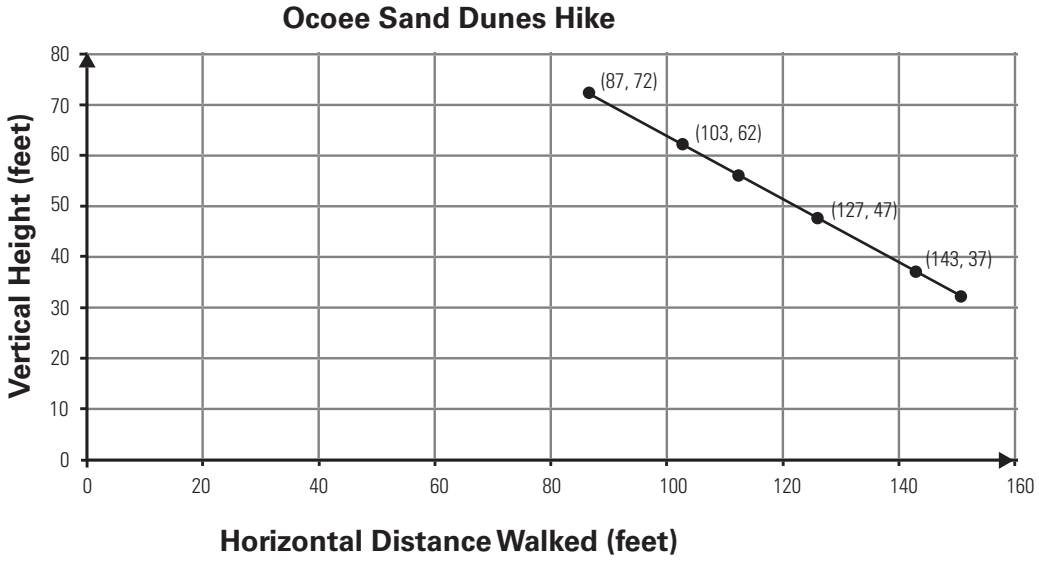


2. After Jose reaches a height of 72 feet, the next portion of his hike can be modeled with the graph below. Calculate the rate of change for his hike over this interval. Explain what the rate of change represents in this problem situation.



TASK 4

3. The sketch below shows part of the final portion of Jose's hike. Explain how you know that the equation $y = -\frac{5}{8}x + 126.375$ correctly represents this portion of the hike.

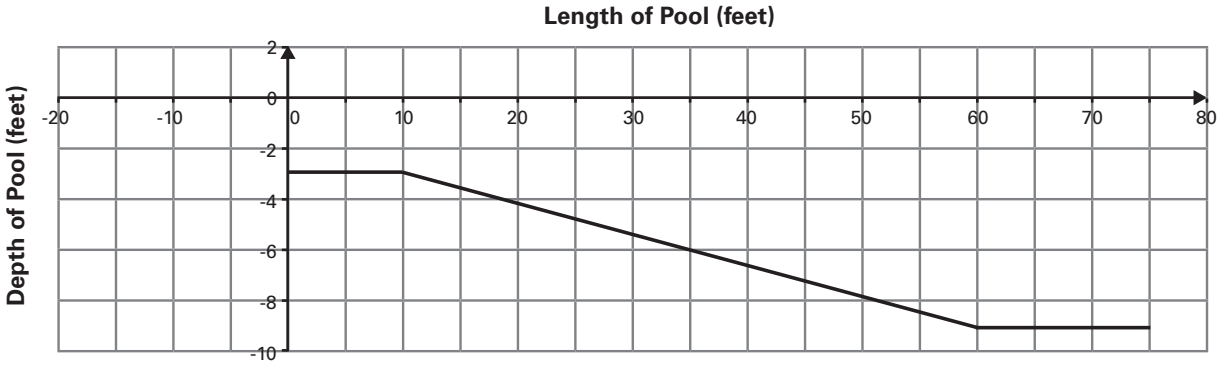


TASK 5

Name_____

Swimming Pool Depth

The graph below shows the depth of a swimming pool over its 75-foot length.



1. Describe how the depth of the pool is changing with respect to the length of the pool.

2. Calculate the rate of change of the depth over each of the intervals of length below. Describe the meaning of each rate of change.
   A. [0, 10]
   B. [10, 60]
   C. [60, 75]

3. The average rate of change of the depth of the pool over the interval [0, 75] is different than the average rate of change for [10, 60]. Explain why this is the case.

4. **Extension**: Determine the function that represents the depth of the pool, y, over the following intervals of length, *x*.
   A. [0, 10]
   B. [10, 60]
   C. [60, 75]

TASK 6

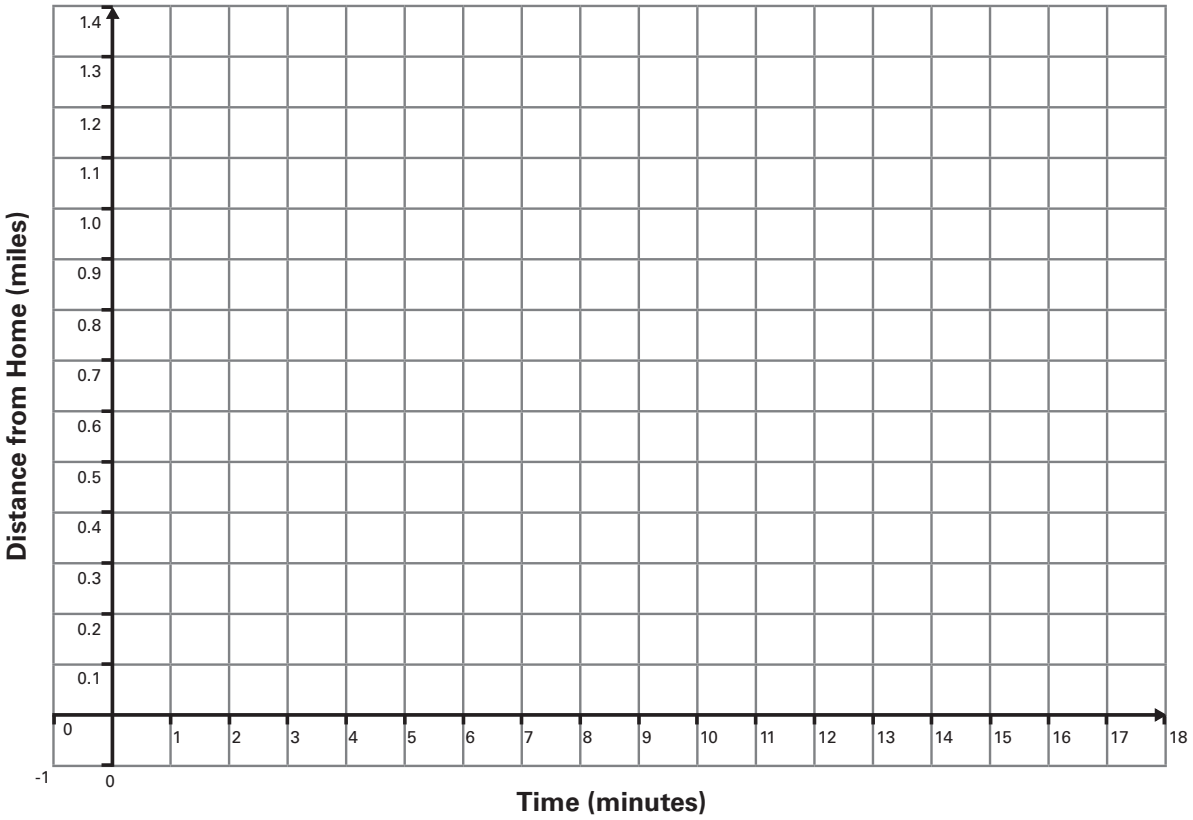
Name_____

Walking

Two sisters, Bonita and Rosie, took a walk at the same time but from different starting points. They described their walks below.

Bonita	Rosie
I started at home. I left the house and walked at a constant rate of 0.3 miles every 10 minutes away from the house. I walked for 15 minutes and then stopped.	I started 1 mile from our house and walked toward home. For the first 4 minutes, I walked at a constant rate until I was 0.8 miles from home. Then I stopped for 4 minutes to talk to a friend. After that, I continued walking toward home at a constant rate of 0.1 miles per minute until I arrived at the door.

1. Sketch a graph of each girl's walk on the coordinate plane below. Label your lines and explain why you believe your lines represent their journeys.



TASK 6

2. Decide whether you agree or disagree with each of the following statements. Justify your answer mathematically.
   A. Bonita is walking faster than Rosie for the interval [0, 4].
   B. Rosie's average rate of change was greater than Bonita's the first 15 minutes.
   C. The rate of change is the same over at least one interval of their walk.
   D. The girls meet each other at some point during their walks.

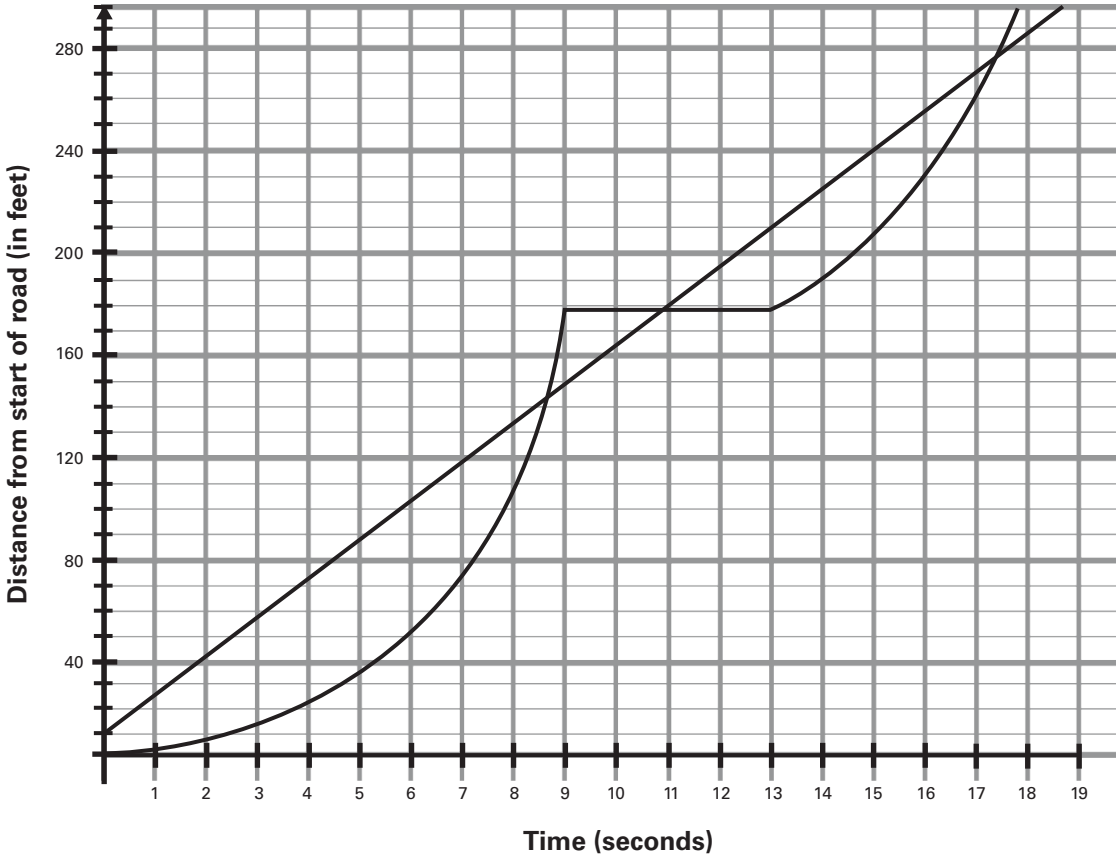
Extension: Determine the linear function that represents each girl's walk over the intervals [0, 4], [4, 8], and [8, 15]. Explain how you know the function models each girl's journey.

Name_____

TASK 7

Bike and Truck

A bicycle traveling at a steady rate and a truck are moving along a road in the same direction. The graph below shows their positions as a function of time. Let B(t) represent the bicycle's distance and K(t) represent the truck's distance.



TASK 7

1. Label the graphs appropriately with B(t) and K(t). Explain how you made your decision.

2. Describe the movement of the truck. Explain how you used the values of t and K(t) to make decisions about your description.

3. Which vehicle was first to reach 300 feet from the start of the road? How can you use the domain and/or range to determine which vehicle was the first to reach 300 feet? Explain your reasoning in words.

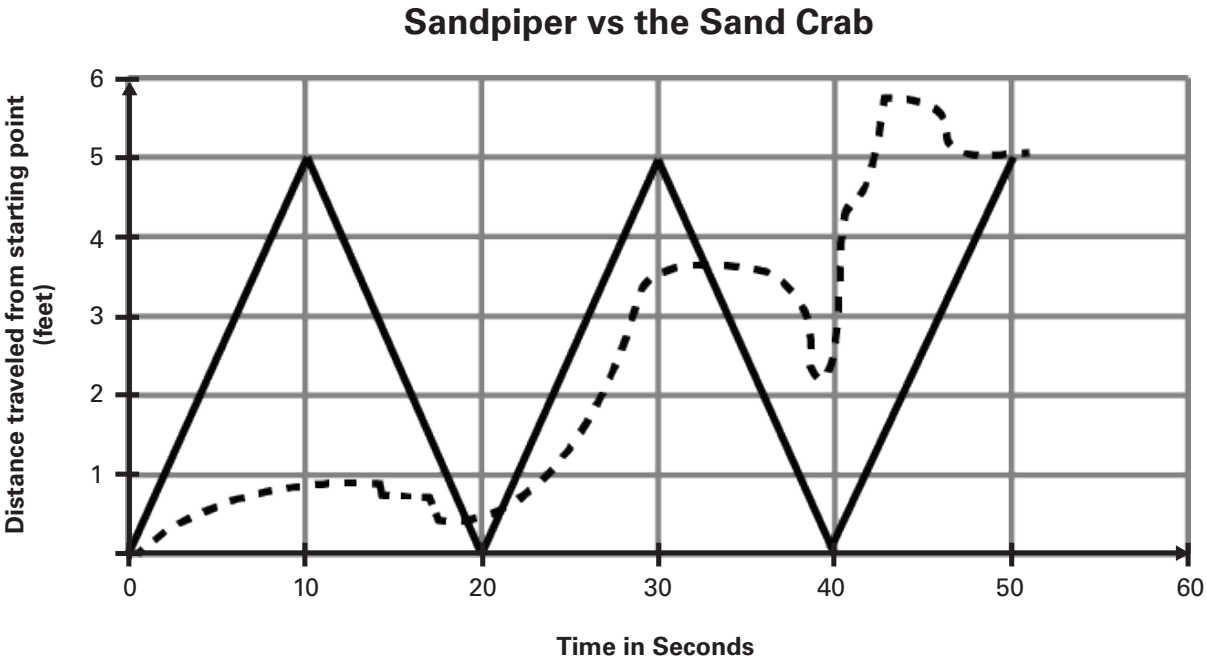
4. Jack claims that the average rate of change for both the bicycle and the truck was the same in the first 17.5 seconds of travel. Explain why you agree or disagree with Jack.

Name_____

TASK 8

Sandpiper vs. the Sand Crab

Sandpipers are beach birds that love to eat sand crabs. Sandpipers run back and forth along the sand at the edge of the water. The graph shows the path of a sandpiper and the path of a sand crab as it runs toward its hole in the sand. The solid line represents the sandpiper's path.



TASK
8

1. Calculate the average rate of change for the sandpiper as it moves across the sand during each interval:
   A. [0, 10]
   B. [0, 20]
   C. [20, 30]
   D. [20, 40]
   E. [40, 50]

   Generalize a method for determining average rate of change. Describe any patterns that you notice.

2. A hermit crab and a lobster join the sandpiper and the sand crab on the beach. Sketch the graph of each with the following conditions:

   A. The hermit crab has the same average rate of change as the sand crab.
   B. The lobster has a greater average rate of change than the sand crab.
   Explain your reasoning for each drawing.

Tennessee Department of Education

Common Core Leadership Course 202

Contact Information:

With questions, please contact:

- TNcore.questions@tn.gov or
- Your facilitators

Your facilitators today were:

Name: _____ Email: _____

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