



January 2014

SELECTED SLIDES FROM NH QPA NETWORK WEBINAR: “COACHING TIPS” FOR PERFORMANCE ASSESSMENT TASK DESIGN

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Sponsored by the Center for Collaborative Education

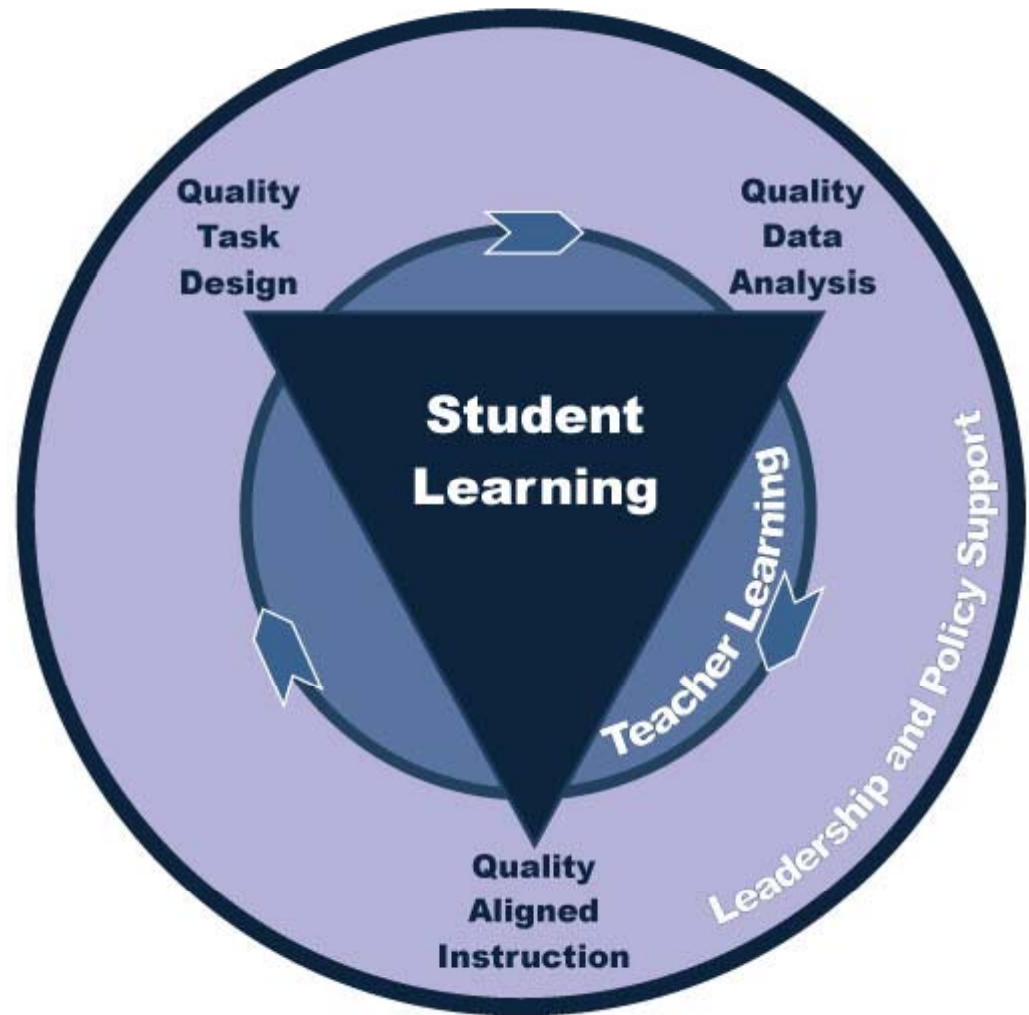
Goals for the Session



- Deepen our understanding of how to create and revise performance assessments
- Apply feedback on key aspects of draft performance assessments and rubrics to ongoing development work

QPA Framework for Technical Quality

Performance assessments are **multi-step** assignments with **clear criteria**, expectations, and processes which measure how well a student **transfers** knowledge and **applies complex skills** to create or refine an original product.



Tool: Hess Assessment Validation Protocol

Purpose:

When we share our assessments with our colleagues we are more likely to uncover our blind spots and assumptions.

Webinar [Areas of Review](#) for Technical Quality

1. Alignment
2. Clarity and Focus
3. Student Engagement
4. Criteria and Levels (Rubrics)
5. Fairness
6. Adheres to Principles of Universal Design
7. Student Work Analysis





SAMPLE K-8 ELA TASK- HEROES

Hero Task

Q
A
P

Established goals (standards, 21st century skills, and school-specific goals)

CCSS. ELA-Literacy.W.K.1-8.1 Opinion/Arguments
3.4-8.4 Production & Distribution of Writing

Students will understand that...

What makes a hero, and what qualities make a hero. Heroes can be within the family, the community, and the greater world.

Essential questions to guide learning & inquiry

What are the qualities that make a hero?

Alignment

Students will know...

They will know how to plan their opinion with supporting details. Students will know the qualities of the hero, know how to write an opinion/argument letter, and understand conventions & voice. +

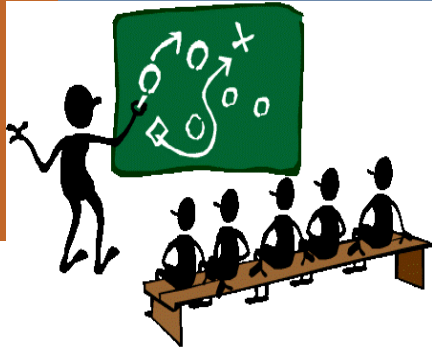
Students will be able to...

Apply their new knowledge to their identified hero. Write an opinion argument letter. Use transitions (2-8). How to set up a letter. They revised their letter. The students 5-8 assessed their own letter. +

Hero Task - Strengths



- Task Template: Tasks “parts” are clearly articulated & connected
- Clear link/language of CC writing standards
- Relevant topic across grades
- Has a research component – for going deeper
- Interdisciplinary (fine arts + writing)
- Unit includes student self-assessment component at grades 5-8



Karin's coaching tips...

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Thinking about Big ideas & Essential Questions...

- Making a judgment based on *commonly held criteria*
– evidence supports criteria used for judgment
- Building schema: The Hero's Journey – an ordinary person is faced with a challenge; s/he may or may not want to accept it but gets/finds support to go on; somehow overcomes; is changed in some way in the end
- **DOK 3 or 4 = analysis** of supporting evidence

Suggestion: Broaden EQ to Bigger Idea & Deepen Thinking (DOK 3-4)



Before...

- What are the qualities that make a hero?
- Are any details/evidence acceptable?
- Is there evidence of analyzing each supporting piece of evidence, cued in the prompt?

After...

- Throughout history and literature (such as in the news and in stories we've talked about and read) what are (the agreed-upon) qualities that make someone a hero?
- Match and analyze "evidence" using universal qualities

Sample Hero Task

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My Hero: Designing a Stamp

Name _____

Date _____

John F. Kennedy

Use a highlighter and look for these answers in your letter. When you find an answer mark it with your highlighter.

- Name of your hero _____
- One adjective or word that describes your hero _____.
(what your hero looks like)
- One adjective or word that describes how your hero acts _____
(this would be something you can not see with your eyes. It could be brave, strong, or kind)

In the space below, make a symbol that stands for your hero. _____

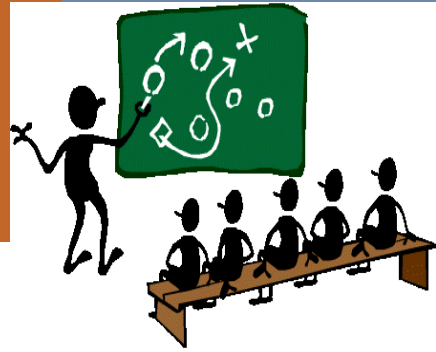
Hero Task



Criteria (what we needed to do)	Novice	Proficient	
Research:			
What are the parts of a stamp? picture or image symbol words 46 cents Or Forever Name of hero	< circle parts that you used in your stamp picture 46 cents forever hero's name I used most of the parts. I used all of the parts.	I did all parts of the project and designed a stamp that answers all the points of the project and illustrates my letter well.	I did a project My stamp letter to see
Procedure... The Steps Followed What does a well designed stamp look like? color balance emphasis (what did you do to make some part of your design stand out?)	< The main color in my stamp is _____ _____ < the part of my stamp that stands out is _____ _____	My stamp looks good and stands out because _____ _____ _____	My stamp letter away. My stamp kind d

Form Criterion

Process Criterion



Karin's coaching tips...

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- Types of Rubric Criteria: Which are DOK "deep"
 - Form (have all parts to task, cite sources, edit grammar)
 - Process (following steps, researching, etc.)
 - Accuracy (locating the right/relevant facts, etc.)
 - **Knowledge** (what have I learned from this, new insights, new questions = conclusions, symbols, visuals)
 - **Impact** (did I convince you? Solve the problem? = analysis of evidence used & connections to bigger ideas)

Suggestions: Broaden RUBRIC to Bigger Idea & Deepen Thinking (DOK 3-4)



Before...

- How hero acts (one word)
- What hero looks like (one word)
- **Symbol** that stands for this hero
- I can provide evidence
- I can write a concluding statement

After...

- I found relevant evidence (**process**)
- I can analyze my evidence (I added a sentence for each fact/detail) to explain why it links to being a hero (**impact**)
- My conclusion states something new that I've learned about this hero/heroes (**knowledge**)
- My symbol shows a deeper/key idea about a hero (**knowledge**)

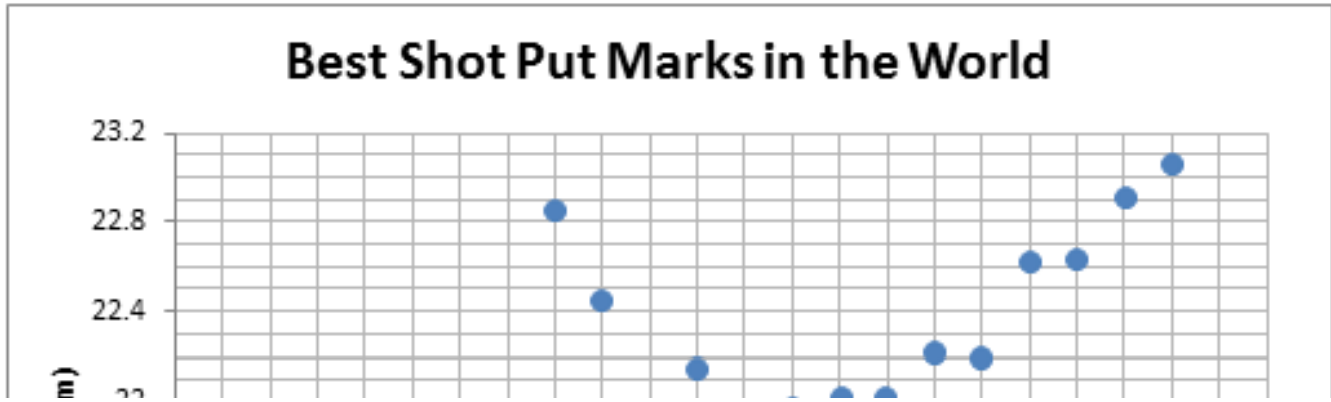


SAMPLE HS MATH TASK- SHOT PUT

HS Math Task



Established goals (standards, 21st century skills, and school-specific goals) <ul style="list-style-type: none">-Students will demonstrate the ability to interpret, analyze, and use functions when applied in a variety of contexts.-Students will demonstrate the ability to create and use algebraic models to connect mathematical concepts and properties when solving real-world problems.-Students will demonstrate the ability to effectively write informative texts to examine and convey complex	
Students will understand that... <ul style="list-style-type: none">-Data may be represented by multiple functions; some better than others.-Good models follow the general movement of the data, exist in the middle of a data set, and is tight to that data set.	Essential questions to guide learning & inquiry <p>What will happen to the shot put marks as time moves on?</p>
Students will know... <ul style="list-style-type: none">-How to solve equations.-How to graph a line.-How to write the equation of a line.	Students will be able to... <ul style="list-style-type: none">-Create linear models to represent data.-Use a model to make future predictions.



Year	Distance
1969	20.64
1970	21.75
1971	21.12
1972	21.54
1973	21.82
1974	21.7
1975	22.86
1976	22.45

8. Collect and examine the best shot put distances for years 1991 to 2010. Create a model describing this data and describe how the two models you have created are different. Why might these models be different?

1987	22.91
1988	23.06

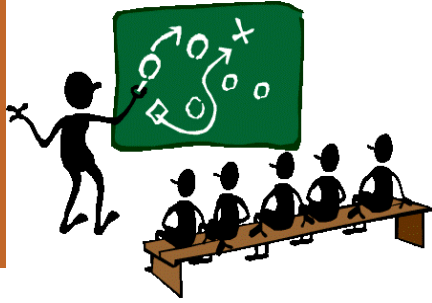
- Sometimes it is appropriate to rescale a graph so that it becomes more manageable. In this case we are examining a small section of the x-axis which is far from the origin. In this scenario, we will treat 1967 as year zero. Re-label the x-axis so that 1988 is represented by 21. We will use this new scale for the rest of the project.
- On the graph above, graph the following lines.

$$y_1 = \frac{1}{10}x + 21 \quad y_2 = \frac{1}{7}x + 20.4 \quad y_3 = \frac{.3}{20}x + 21.7$$

HS Math Task, Shot Put - Strengths



- Task Template: Tasks “parts” are clearly articulated & connected
- Clear link/language of CC math content standards
- Addresses one math practice – modeling
- Makes connection to CC language standard (write in complete sentences) & CC writing standards
- Makes relevant real-world connections to data interpretation using models
- Sets up for analysis of pros-cons of various models



Karin's coaching tips...

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- DOK Analysis: Especially in math assessments with multiple questions/tasks
 - Is there a DOK range (1-2-3) and a balance of emphasis towards deeper thinking/analysis? Is every question necessary? (consider rubric criteria; math practices - mathematical reasoning, critique)
 - Is the amount of scaffolding “just right?” or “too much?”
- Item inter-dependence – if a student's graphs incorrectly in part A, does that make everything else in part B wrong? (is this addressed in the rubric?)
- EQ: *Are there limits? Outliers? Always linear?*

<p>Justifying the Use of a Particular Model</p>	<p>The student was able to identify multiple pros and cons for each model and was able to justify and articulate why they would use one over the others.</p>	<p>The student was able to identify the flaws of each model and was able to justify the use of one model over the others.</p>	<p>The student was able to identify flaws of most of the models and had difficulty justify the use of one model over the others.</p>	<p>The student had difficulty identifying flaws of each model and could not justify why they would use one model over the others.</p>
<p>Creating Algebraic Models</p>	<p>The student was able to create two models which accurately represent the two data sets.</p>	<p>The student was able to create two models which represent the two data sets with some level of accuracy.</p>	<p>The student was able to create a model which represents a data set with some level of accuracy.</p>	<p>The student was not able to produce a model with any accuracy.</p>
<p>Explanatory Writing</p>	<p>The student is able to provide a clear and thorough explanation of their answers using complete sentences with correct punctuation.</p>	<p>The student is able to provide a clear and accurate explanation of their answers using complete sentences.</p>	<p>The student is able to provide an explanation of their answers using complete sentences; however, the student's writing is hard to follow or incomplete.</p>	<p>The student has not provided a clear explanation of their answers.</p>

Alignment (DOK)

Alignment (Standards)

Clarity



	Scoring Criteria	Proficient
Accuracy	Interpreting Elements of a Linear function	The student was able to identify the elements of a line and was able to graph most of the lines with some inaccuracies.
Accuracy and Knowledge	Using Algebraic Models	The student was able to use the linear models to predict future marks and was able to identify which model was most accurate.
Impact	Justifying the Use of a Particular Model	The student was able to identify the flaws of each model and was able to justify the use of one model over the others.
Accuracy	Creating Algebraic Models	The student was able to create two models which represent the two data sets with some level of accuracy. Clarity
Accuracy	Explanatory Writing	The student is able to provide a clear and accurate explanation of their answers using complete sentences.
Process and Form Criterion	Research	The student is able to find and cite (incorrectly) data to be used to create a model.

Suggestions: Broaden Tasks & RUBRIC to Bigger Ideas & Deepen Thinking (DOK 3)



Before...

- **Task:** For each of these lines, identify at least one good way in which it represents the data and at least one flaw. **Fill out the grid below using complete sentences to convey your thoughts.**
- **Rubric:** "...some level of accuracy..."
- "...able to justify and articulate why..." (**Argument Writing**)
- **Explanatory writing**

After...

- Fill out the grid below. In complete sentences, use mathematical reasoning, models, and evidence to convey your thoughts.
- **Minor flaws** in accuracy do not affect strategy used or line of reasoning conveyed
- **Justification:** Use appropriate and accurate mathematical representations, note patterns, structures, possible limitations



SAMPLE 3RD GRADE ELA- SHRINKING STUDENTS

Grade 3: The Shrinking Students



Grade 3 Prompt The Shrinking Students

As the students entered the classroom something strange happened. Each student became smaller until they were only 12 inches tall. Now write a story about what it would be like to spend a whole day at school being only 12 inches tall.

Be sure to:

- Create an introduction that explains the situation and grabs the reader
- Identify the characters by name
- Describe the problem(s) and solution(s).
- Use dialogue and description to develop the experience so the reader feels like he's there.
- Use interesting and descriptive words to connect ideas.
- Write a conclusion that makes a connection to the events in the story.
- Check for correct punctuation, grammar, capitalization, and spelling

Think about what is most important to assess...does the prompt set the stage?

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A

- Prompt:

As the students entered the classroom something strange happened. Each student became smaller until they were only 12 inches tall.

Now write a story about what it would be like to spend the whole day at school being only 12 inches tall.

Does the rubric clearly address & describe what is *most* important?

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	Score of 4 (Advanced)	Score of 3 (Proficient)	Score of 2 (Developing)
FOCUS/IDEAS W-3 W-4	The paper is completely focused on the task and has a clear purpose.	The paper is generally focused on the task and the purpose.	The paper is somewhat focused on the task and purpose.
ORGANIZATION W-3 a, c, d	The narrative has a clear beginning, middle, and ending. The ideas and details are presented in logical order. The writer groups related ideas in paragraphs. The paper seems complete.	The ideas and details are mostly presented in logical order. The writer usually groups related ideas in paragraphs.	The organization is not clear in some places.
DEVELOPMENT W-3 a W-4	The sequence of events in the narrative is fully developed.	The sequence of events is developed.	events is somewhat developed.
	The writer's viewpoint is clear. The writer uses creative and original phrases, dialogue, and expressions where appropriate.	The writer's viewpoint is somewhat clear. The writer uses some original phrases, dialogue, and expressions.	The writer's viewpoint is unclear.
WORD CHOICE W-3 b	The writer uses colorful words and phrases. The writing is very	The writer uses some colorful words and	The writer does not use many colorful

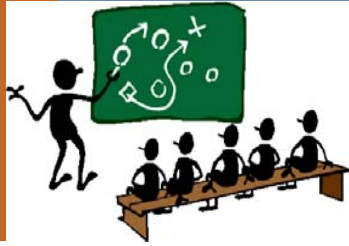
Are differences between levels clear and described objectively?

Do the criteria reflect the prompt & CC standards?

The Shrinking Students - Strengths



- Administration Guidelines – states when to administer, includes teacher notes/what to say, student materials, etc.
- Engaging task, with no “right” answer
- The “Be sure to...” section in the prompt helps to remind students of the many parts to remember
- Each rubric criterion aligns with many of the CC Narrative Writing aspects in this standard (at gr 3)
- Advanced rubric level is clear and objective



Karin's coaching tips...

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- All writing requires pre-writing/planning
- Visuals encourage elaboration/details
- **Building schema:** Rubric language and descriptions should be *genre-specific* (what is unique about narrative writing – chronology (use of transitions), develop literary elements, such as characters, use dialogue, description, resolve a problem or conflict)
- **Distinguish Across Rubric Levels:** subjective (e.g., sometimes, usually) *versus* objective language
- **Rubrics:** State what is as opposed to what is not

Suggestions to add genre-specific writing clarity and focus for students



Before ...

- Teacher reads aloud: “use organizer...plan what you write about”
- “...write a story about what it would be like to spend the whole day...” implies (explanation or description?)
- Some vague rubric descriptions for levels: Mostly presented in logical order; Organization is not clear; has little or no organization; etc.

After...

- Add space to explore ideas and then choose your best one
- “...write a story about what caused this to happen and how the problem was solved...” (problem-solution)
- Include: dialogue, use of transitions, illustration; drop less important ideas (scoring)
- Has a beginning, but middle and end not clearly developed; minimal use of transitions



SAMPLE MS/HS GEOMETRY- FLU

MS/HS Geometry Prompt – makesyousick flu



A serious flu strand *Makesyousosick* is making its way to Washington. The Center of Disease Control and Prevention wants to set up a flu clinic.

- Diagville - 20 miles E and 20 miles N of Washington
 - Edgeton - 30 miles E and 50 miles S
 - Farmington - 40 miles W and 60 miles S
- a) Using what you know from this unit, describe in detail a technique that can be used to find the most central location of the clinic.
 - b) Where should the flu clinic be located?
 - c) Does the location seem reasonable? Explain your thinking.

Geometry Performance Assessment

Name _____

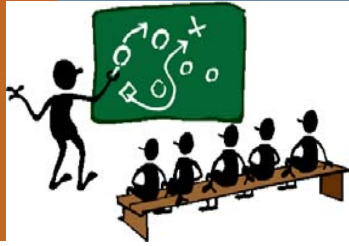


Criteria	Level 4	Level 3	Level 2	Level 1
Accuracy	<ul style="list-style-type: none"> * All components of the solution process are accurate. * Thorough responses are provided for parts a - c. * May contain a minor error which minimally impacts the solution. 	Up to four minor errors	All components of the solution process are present. <u>numerous</u> errors are made which significantly impact the solution.	Must Reassess
Organization	The solution process is organized, exceptionally detailed including labels and flows from step to step. The reader can follow the thought process of the author without making inferences.	The solution process is coherent, but the reader must fill in some labels.	The reader must work to follow the solution process.	Must Reassess

MS/HS Geometry Prompt – Strengths



- *Task Template: not reviewed*
- Implies application of several geometry concepts and math practices (e.g., modeling, developing a mathematical argument, precision)
- Makes relevant real-world connections to data in an engaging way
- The rubric addresses two types of criteria: Accuracy & Process and allows for some minor errors that do not negatively impact the solution
- Low scores require “do-over” (must re-assess)



Karin's coaching tips

Q
A
P

Most mathematical arguments are either

- arguments of “fact” – claims supported by calculations, models (equations, graphs, tables), labeled diagrams, and abstract reasoning OR
- arguments of “judgment” – judgment uses commonly held criteria to determine which evidence will be most compelling (e.g., ranking teams; consumer reports-types of data use for best ‘deal’)
- Which type of argument is being asked for here?

Some Questions & Suggestions



Before...

- Level 4 of rubric is clearly articulated, while other levels are vague. All parts of the task (a, b, c) and number of errors seem to be equally important in terms of impact on solution.
- What type of response are you looking for? DOK 2 – label & summarize steps taken; or DOK 3 - support for a solution that might have more than one possible answer or approach?

After...

- Rephrase prompt: Your reasoning and evidence (calculations, graphs, etc.) should help to explain WHY each step taken is accurate and based in a geometric concept; or which of ___ would be the most central location?
- Strengthen the reasoning component of rubric – pull wording from the other criteria and add another (if this is DOK 3). Does Thorough = Deep? No



SAMPLE MS SCIENCE TASK

It's your turn...

Chewing gum & bubble gum



- Libby wondered just how quickly chewing gum loses its sugar (mass) while chewing. She asked, “How does the chewing time affect the mass lost by chewing gum?” Plan an investigation to answer Libby’s question.

Think about...

- Is it clear what the student is expected to do?
- What is the intended DOK?
- What big idea in science is addressed? what skills?
- What will be most important to assess?

Gum (cont.) Be sure to include:



- Prediction (hypothesis) of the investigation results
- Materials/equipment needed for the investigation
- Procedure that includes:
 - logical steps to perform the investigation
 - one controlled variable (kept the same)
 - one variable that is manipulated (changed)
 - one responding variable (dependent)
 - how often measurements are taken and recorded
- Use science terms, concepts, and labeled diagrams in your plan

Strengths? Suggestions?



What do you see?

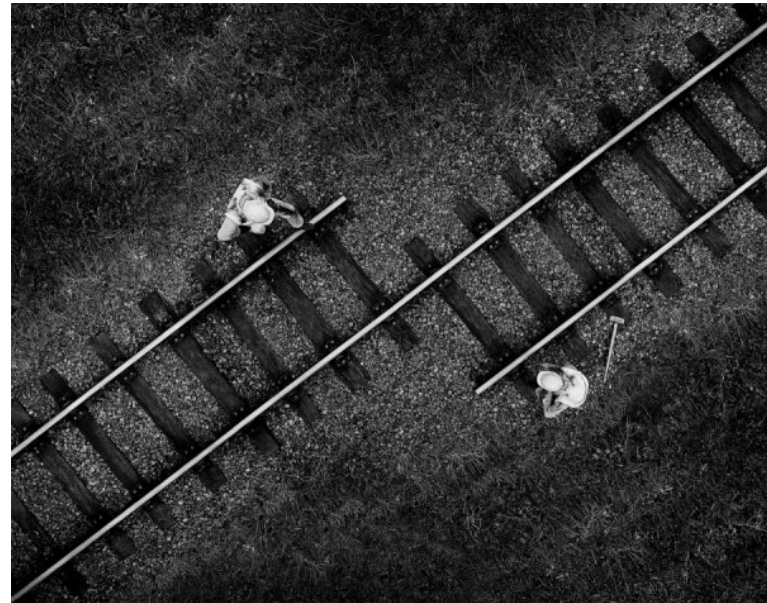
What do you suggest?

Criteria	What I Need to Do	Evidence of What I Did (may color code in lab report) (This area provided for student self-assessment).
Scientific Communication Using Data	<p>My data will be organized in _____(chart, table, graph, diagram),titled, labeled, keyed</p> <p>My data must be complete (___ trials) and support conclusions.</p> <p>Someone can read my results and understand it. (requires sign-off by peer who can explain data)</p>	<hr/> <hr/> <hr/> <hr/>
Scientific Concepts and Related Content	<p>Terms/concepts to use accurately: (Student lists).</p> <p>Things/variables I need to observe/pay attention to and analyze: (Student lists). </p> <p>A "Big Idea" that might help me to connect my learning to things I know or want to learn more about:</p>	<hr/> <hr/> <hr/> <hr/>
Scientific Tools and Technologies	<p>Tools I need to safely use to collect data and complete the task/investigation: (Student lists).</p> <p>What I'll do to check for accuracy/mistakes/errors:</p>	<hr/> <hr/> <hr/> <hr/>
Scientific Procedures and Reasoning Strategies	<p>The inquiry question: My hypothesis:</p> <p>Variables to control:</p> <p>Design: steps to follow, data to record:</p> <p>Analysis connects hypothesis-design-data-results-conclusions</p>	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/>

Alignment

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- Applies **content knowledge** to the **skills**
 - I am a **critical thinker** using **Shakespeare**.
 - I am a **problem solver** using **area and perimeter**.
- Consistent Wording Throughout
 - standards
 - Big ideas/essential questions
 - UbD planning template
 - student & teacher materials
 - rubric descriptors
 - anchor papers



Student Success

journey