

Disrupting Details

3

1. Stop throwing shade.

4



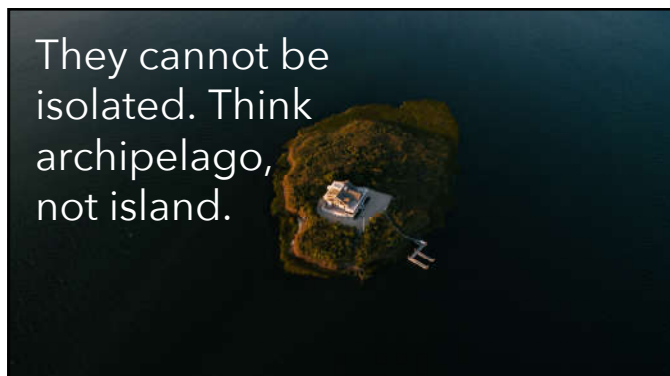
5

IMPLY
THE WHY

6

2. They're pretty kumbaya.

7



8

Details + Big Idea

9



10

Prove 🌿 that Nick Carraway is an unreliable narrator. 🌳

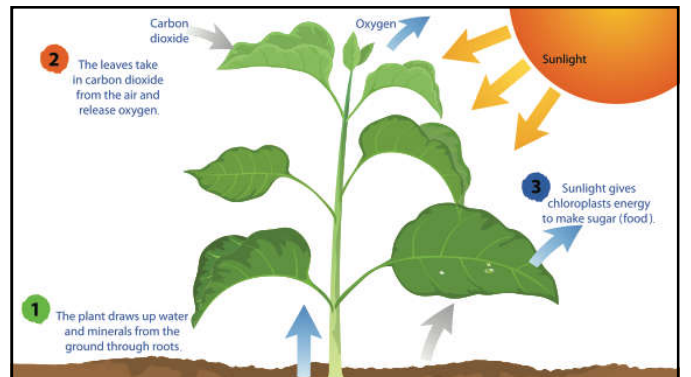
11

Is it true 🌿 that the Big Idea 🌳 of algae is that it feeds, kills, and dies?

12

Details + Patterns

13



14

Carbon dioxide

Oxygen

Sunlight

2 The leaves take in carbon dioxide from the air and release oxygen.

1 The plant draws up water and minerals from the ground through roots.

Sunlight gives chloroplasts energy to make sugar (food).

Compare photosynthesis to the water cycle. Which details are the same/different?

15

Carbon dioxide

Oxygen

Sunlight

2 The leaves take in carbon dioxide from the air and release oxygen.

1 The plant draws up water and minerals from the ground through roots.

Sunlight gives chloroplasts energy to make sugar (food).

3 Sunlight gives chloroplasts energy to make sugar (food).

What would happen if we eliminated carbon dioxide?

16

Carbon dioxide

Oxygen

Sunlight

2 The leaves take in carbon dioxide from the air and release oxygen.

1 The plant draws up water and minerals from the ground through roots.

Sunlight gives chloroplasts energy to make sugar (food).

You can only keep two Details. Which leaves does the tree have to have to stay the tree?

17

Details + Ethics =
Unanswered
Questions

18

100 million vertebrate animals are used in medical research each year. This research has saved countless millions of human lives.

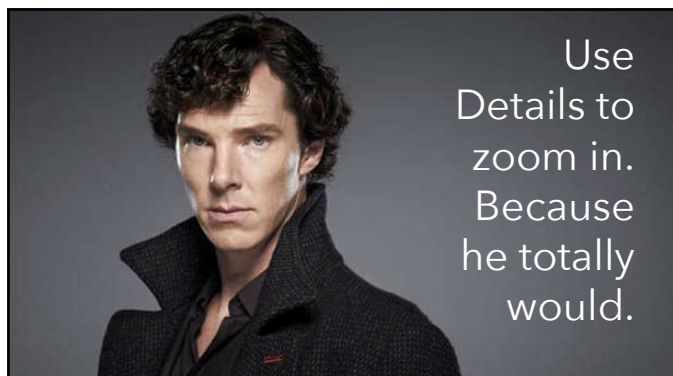
The utilitarian viewpoint is that good and bad actions are distinguished by the amount of happiness or suffering they produce.

Assume the utilitarian viewpoint: When should we use vertebrate animals in research if it saves human lives but causes animals suffering?

19

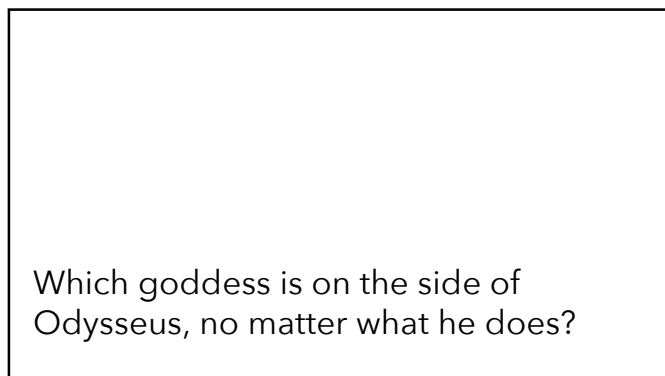
3. Be like Sherlock.

20



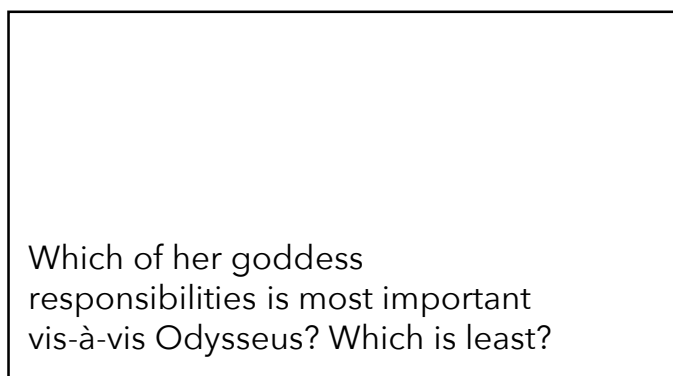
Use
Details to
zoom in.
Because
he totally
would.

21



Which goddess is on the side of
Odysseus, no matter what he does?

22



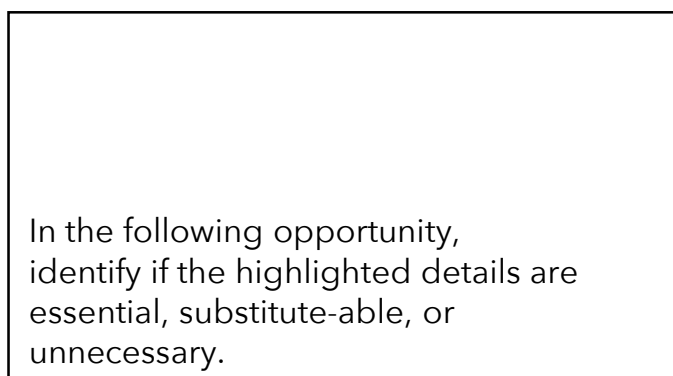
Which of her goddess
responsibilities is most important
vis-à-vis Odysseus? Which is least?

23



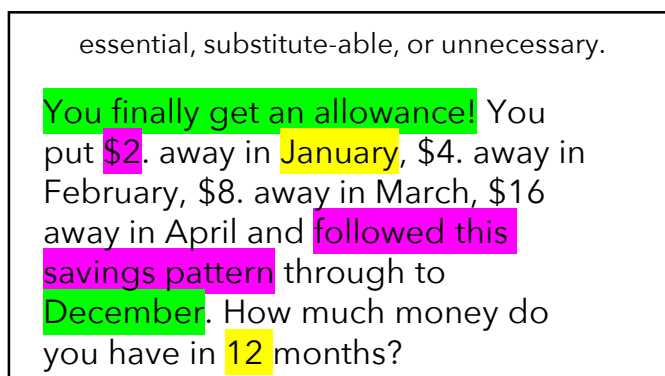
Which of these representations of
Athena is *least* applicable to
Odysseus?

24



In the following opportunity,
identify if the highlighted details are
essential, substitute-able, or
unnecessary.

25



essential, substitute-able, or unnecessary.

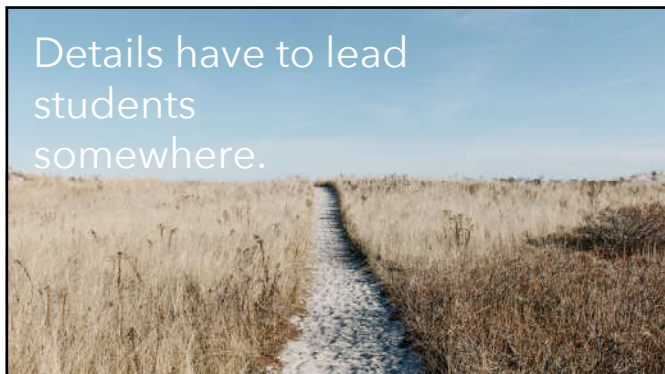
You finally get an allowance! You
put \$2. away in January, \$4. away in
February, \$8. away in March, \$16
away in April and followed this
savings pattern through to
December. How much money do
you have in 12 months?

26

4. They're not an endgame.

27

Details have to lead students somewhere.



28

Think + Move

29

What can you say now that you couldn't say before?

30

NOTE: This will often lead to another element.

31

Because these things are solids, not liquids, they can _____ and they can't _____.

32

Because these things are living, not non-living, they can _____ and they can't _____.

33

Because these things are mammals, not reptiles, they can _____ and they can't _____.

34









Because these things are similes, not metaphors, they can _____ and they can't _____.

35

Because these things are fiction, not non-fiction, they can _____ and they can't _____.









36

Write the correct short vowel to complete each word.

a	e	i	o	u
 c__t	 p__g	 d__g		
 s__n	 v__n	 f__sh		
 l__g	10 t__n	 d__ck		

37

Write the correct short vowel to complete each word.

a	e	i	o	u
 c__t	 p__g	 d__g		
 s__n	 v__n	 f__sh		
 l__g	10 t__n	 d__ck		

38

Which words use the same vowels?

Which vowel did you use least often?

Which vowel makes you open your mouth the widest?

5. Evaluate them.

39



accuracy
precision
logic
significance
origin
relevance

40

Evaluate these Details:

How accurate is it to say that the protagonist is the most important character in the story?

Why is saying "the antagonist is the bad guy" not precise enough to be useful?

What is the relevance of having multiple antagonists in the story?

41

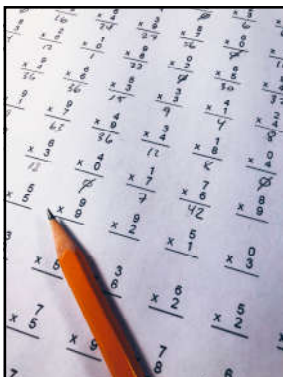
Compare the attributes of the self-portraits of Rembrandt & Van Gogh. Include line, shape, form, texture, color, value, and space.



42

WHAT IS
JUST NOISE?

43



Am I really
testing what's
important?
Are my tests
just noise?

44

6. Put Details in the rubric.

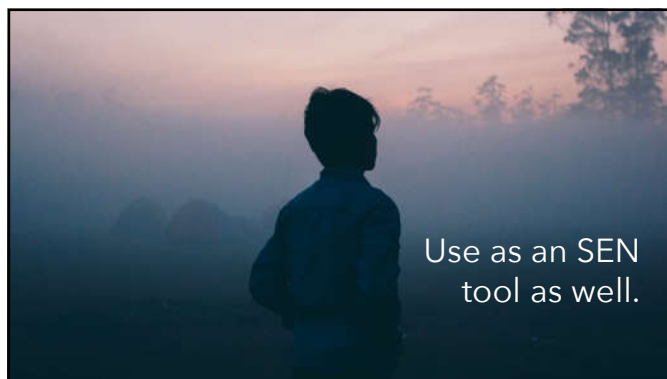
45

	Accomplished	Acceptable	Emerging
Details used to support the argument	The details used are completely relevant and strongly support the argument.	The details used are relevant and support the argument.	The details used are only somewhat relevant and/or barely/don't support the argument.
	10 9 8	7 6 5 4	3 2 1 0

46

7. There's a whole other layer.

47



48



49

Disrupting LotD

50

Indulge me while I get all research-y.

51

There is a strong correlational relationship between students' **vocabulary knowledge** and their **ability to comprehend text**.

(Anderson & Freebody, 1981)

52



This is pretty tricky.

53

knowledge of specific words

(Anderson & Freebody, 1981; Mezynski, 1983)

54

fall line, snow plow, corn snow, unweight, powder, packed powder, green slope, blue slope, black slope, mogul, carving, and face plant.



55

knowledge of concepts referred to by the words

56

What am I talking about?

divide

incubate

membrane

cytoplasm

mitosis

cell wall

57

depth and fluency of their
knowledge of the words

58

- ✓+ I understand even more about the term than I have been taught.
- ✓ I understand the term and am not confused about its meaning or usage.
- ✓- I'm not sure I understand the term, but I have some idea as to its meaning.
- ↓ I really don't understand the term at all.

59

extent to which they have been
able to acquire words through
extensive exposure.

60

The vocabulary of entering 1st
graders predicts their word
reading ability at the end of
1st grade.

(Senechal & Cornell 1991).

61

And it also predicts their 11th
grade reading comprehension.

(Cunningham & Stanovich, 1997).

62

If I know the terms, I'll read
& understand the text.

And the reverse is also true.

63

Are you in yet?
Can I stop now?

64

LotD includes...

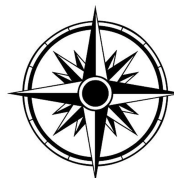
tools of the discipline



65

LotD includes...

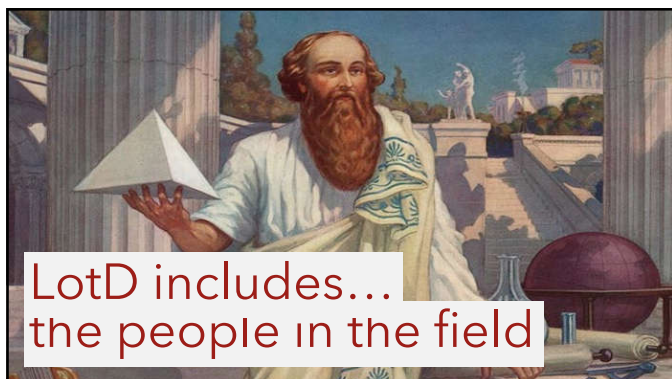
signs or symbols



+ - × ÷ =
≠ < > ≤ ≥
. √ ^ * %
Σ ∅ () [] {}
π ∫ Δ ! ≈

The mark	What it means	The mark as it appears
✓	Done with no corrections	✓
∧	Done with corrections	∧
⌈	Underline over	⌈
⌋	Underline under	⌋
⌌	Underline over and under	⌌
⌍	Underline over and under, with a slash	⌍
⌎	Underline over and under, with a circle	⌎
⌏	Underline over and under, with a square	⌏
⌐	Underline over and under, with a triangle	⌐
⌑	Underline over and under, with a diamond	⌑
⌒	Underline over and under, with a star	⌒
⌓	Underline over and under, with a cross	⌓
⌔	Underline over and under, with a plus sign	⌔
⌕	Underline over and under, with a minus sign	⌕
⌖	Underline over and under, with a multiplication sign	⌖
⌗	Underline over and under, with a division sign	⌗
⌘	Underline over and under, with an equals sign	⌘
⌙	Underline over and under, with a not sign	⌙
⌚	Underline over and under, with a less than sign	⌚
⌛	Underline over and under, with a greater than sign	⌛
⌜	Underline over and under, with a less than or equal to sign	⌜
⌝	Underline over and under, with a greater than or equal to sign	⌝
⌞	Underline over and under, with a square root sign	⌞
⌟	Underline over and under, with a power sign	⌟
⌠	Underline over and under, with a percent sign	⌠
⌡	Underline over and under, with a summation sign	⌡
⌢	Underline over and under, with a set difference sign	⌢
⌣	Underline over and under, with a parentheses sign	⌣
⌤	Underline over and under, with a brackets sign	⌤
⌥	Underline over and under, with a curly braces sign	⌥
⌦	Underline over and under, with a pi sign	⌦
⌧	Underline over and under, with an integral sign	⌧
⌨	Underline over and under, with a delta sign	⌨
〈	Underline over and under, with an exclamation sign	〈
〉	Underline over and under, with an approximation sign	〉

66



LotD includes...
the people in the field

67

LotD includes...

SHIBBOLETH

idiomatic expressions/jargon

68

LotD includes...

expression
conflict
balanced

how words differ across content areas

69

LotD does NOT mean

spelling words

70

So let's use it!

71

THIS: Why is "Dark Ages" not a good term for the period of time from 476 AD - 1492?

72

NOT THIS: What were the Dark Ages?

73

THIS: How does Odysseus calling himself "formidable in guile" move the plot forward?

74

NOT THIS: What is "formidable in guile"?

75

THIS: How are "hospitality" and "hospital" connected in meaning?

76

NOT THIS: What suffix can you add to "hospital"?

77

THIS: Of these words that rhyme with "can", which one is most fun to say?

78

NOT THIS: Which words rhyme with "can"?

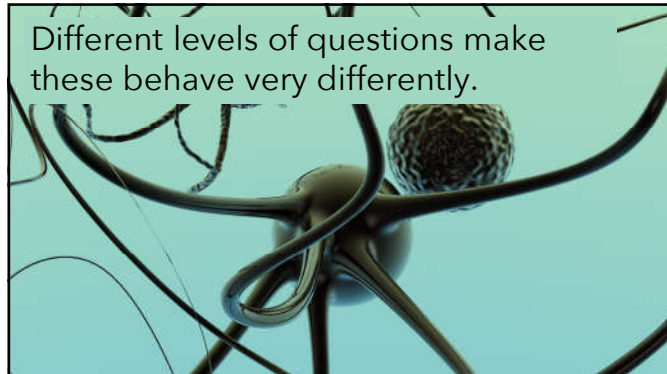
79

THIS: Because English is Germanic, "D" and "T" often shift. Keeping this in mind, discuss how "plod" and "plot" are similar?

80

NOT THIS: Explain what it means to "plod".

81



82

LAB EQUIPMENT

WORD LADDER

Keep only the first letter the same and add an letters to make the object used for measuring.

Keep the last two letters the same. Add three letters to make a device used for measuring length.

Move the last letter to the front. Add one letter to make a unit of measurement.

Drop all letters but the first one to make the unit used to measure length. Add one letter.

MAGNIFYING

FOOD CHAIN

WORD LADDER

Keep the last two letters the same. Add four letters to describe an animal that eats other plants.

Keep the first letter the same and add eight letters to make a description of a plant.

Drop all letters but the first one to make a program that breaks down food particles.

Keep the first two letters the same. Add one letter to make a unit of measurement.

Keep the first letter the same and add five letters to make an object with a specific shape.

PREY

83

Mathematical Practice	Characteristics of Mathematically Proficient Students
Model with mathematics.	Mathematically proficient students can: Use a variety of methods to model, represent, and solve real-world problems. Simplify a complicated problem by making assumptions and approximations. Interpret results in the context of the problem and revise the model if necessary. Choose a model that is both appropriate and efficient to arrive at one or more desired solutions.
Use appropriate tools strategically.	Mathematically proficient students can: Identify mathematical tools and recognize their strengths and weaknesses. Select and use appropriate tools to best model/solve problems. Use estimation to predict reasonable solutions and/or detect errors. Identify and successfully use external mathematical resources to pose or solve problems. Use a variety of technologies, including digital content, to explore, confirm, and deepen conceptual understanding.
Attend to precision.	Mathematically proficient students can: Understand symbols and use them consistently within the context of a problem. Calculate answers efficiently and accurately and label them appropriately. Formulate precise explanations (orally and in written form) using both mathematical representations and words. Communicate using clear mathematical definitions, vocabulary, and symbols.

84




variable (adj.)

late 14c., of persons, "apt to change, fickle," from Old French *variable* "various, changeable, fickle," from Late Latin *variabilis* "changeable," from *variare* "to change" (see **vary**). Of weather, seasons, etc., attested from late 15c.; of stars, from 1788.

<https://www.etymonline.com/word/variable>

85




variable (n.)

"quantity that can vary in value," 1816, from **variable** (adj.) in mathematical sense of "quantitatively indeterminate" (1710). Related: *Variably*; *variability*.


<https://www.etymonline.com/word/variable>

86




In what ways does the adjective form of "variable" help us understand the more mathy noun form?

87




Come up with another word that could be substituted for "variable" that would be even more precise.

88



+



Compare the idea of a variable in mathematics to a changeable idea in another content area (verb endings, weather patterns, etc.)

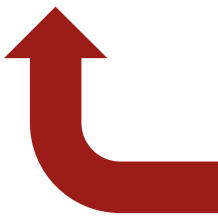
89

Lisa's LotD

secret weapon

90

CONCEPT CAPSULES



DEFINE: ALLITERATION

- a number of words starting with the same first consonant sound appearing in a series close together
- an example is: Found the peanuts on the purple plate.
- alliteration depends upon the sound, not the letter
- alliteration must have both the sound similarity and the closeness of the sequence
- from the Latin *littera*, meaning "letters of the alphabet"

What if I look like on a red

In the excerpt from Shakespeare's play *Romeo and Juliet* underline the examples of alliteration that there are two different words used to sound matched.

From forth the fatal loins of these two foes, A pair of star-cross'd lovers take their life.

Take the first consonant of your first name and create a sentence with at least five alliterative words in that begin with that consonant.

Example: If your name were Ethan, the letter would be "T". A possible sentence could be: Ten towering truck drivers trundled down the road ferociously.


Your sentence _____

91

Deluge Delta

- low, wetters land formed at the mouth of a river
- formed from the old, sand and silt that flow downstream in the river and are deposited in the delta
- often (but not always) shaped like a triangle (hence its name, delta, a Greek letter Δ that is shaped like a triangle)

Read about deltas: <http://www.history.com> or scan the code below:



Work it!

Directions: Circle each of the four words. Copy the letters in the numbered cells to other cells with the same number.

DELTA: [][][][][]

DELTA: [][][][][][]

DELTA: [][][][][][][]

DELTA: [][][][][][][][]

DELTA: [][][][][][][][][]

[][][][][][][][][][]

92

First, DEFINE {make sure to add in a little trivia}

DEFINE: DELTA

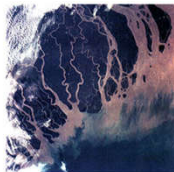
- low, watery land formed
- formed from the silt, sand and silt and small rocks that flow downstream in the river and are deposited in the delta
- often (but not always) shaped like a triangle (hence: shaped like a triangle)

The concept or word. Putting "define:" indicates to students how to search definitions on search engines.

The definition follows in short, bulleted phrases.

93

Next, IMAGE & INVITE



an image and invitation to apply the concept

This is the Ganges River delta as seen from space. Quick! What



an invitation to extend learning

at deltas' role in Livydelatohistory.com scan the code above.

94

Third, TEST IT

What it looks like on a test:

Looking at the picture shown here, which clue is NOT helpful in determining if this is a delta?

- It's formed by a river.
- It is shaped like a triangle.
- The river is small.
- There is silt build up visible where the land meets the river.



an example of how the concept will be tested

95

Last, get ACTIVE

F O J Y A R B A
J D O Q T O L D
H A N C U L T U
X K V U G B F
Y W A S O L P G
P M I D S V X T
P O S H T Y M H
N J M J R S V H

Find the words allusion and myth in the letter grid. What other words could be included in a word search on allusion? Can you think of three?

- _____
- _____
- _____

Take the first consonant of your first name and create a sentence with at least five alliterative words in it that begin with that consonant.

Example: If your name were Ethan, the letter would be "t." A possible sentence could be: Ten traveling truck drivers trundled down the road terribly.

Your sentence: _____

96

You can do it, promise!

97

Define: Area

- number of unit squares that can be contained within a plane figure
- the number of square units it takes to cover a shape
- like the carpet in a room or turf on the field



Watch this video about area. [0EHL_ujgk8c](https://www.youtube.com/watch?v=0EHL_ujgk8c) or scan the QR code below.

What you know? Which of the following can be used to find area? Circle all that apply.

- Area Area Area Area Area
- Area Area Area Area Area

Each letter represents another letter. Solve the code to reveal Mr. Rosenblatt's tip for finding your answer when finding area.

T R O P U U R R

T R O P U U R R

98

The *logistics*.

99

- 1 Vocab, not spelling
- 2 60 - 80 a year
- 3 Distribute and discuss
- 4 Give five & begin to play
- 5 All fair game, all the time

100

Sharing...
my students' fave game.

101

WILL THE
WINNERS
LOSE?

102

earn 100 points	your team loses a turn
take 50 points from the other team	earn 75 points

103

earn 150 points	take 150 points from the other team
lose 150 points	triple your points

104

add 50 points to the other team's score	earn 100 points
lose 100 points	get a bonus turn

105

Disrupting LotD

106

Planning

	Across the Disciplines <small>Where else do we see it?</small>	Change over Time <small>How is it/was it/will it be?</small>	Multiple Perspectives <small>Who or what sees it differently?</small>
Details <small>Just the facts.</small>			
Patterns <small>Details combined into relationships.</small>			
Trends <small>Details combined into directions (temporal relationships).</small>			
Rules <small>Details combined into ordering principles (hierarchical relationships).</small>			
Big Ideas <small>Concepts and theories.</small>			
Ethics <small>Moral principles and controversies.</small>			
Unanswered Questions <small>"Here be dragons."</small>			
Language of the Discipline			

107

Unit: _____
Lesson: _____

	Across the Disciplines <small>Where else do we see it?</small>	Change over Time <small>How is it/was it/will it be?</small>	Multiple Perspectives <small>Who or what sees it differently?</small>
Details <small>Just the facts.</small>			
Patterns <small>Details combined into relationships.</small>			

108

	Across the Disciplines <small>Where else do we see it?</small>	Change over Time <small>How is it/was it/will it be?</small>	Multiple Perspectives <small>Who or what sees it differently?</small>
Trends <small>Details combined into directions (temporal relationships).</small>			
Rules <small>Details combined into ordering principles (hierarchical relationships).</small>			
Big Ideas <small>Concepts and theories.</small>			
Ethics <small>Moral principles and controversies.</small>			

109

	Across the Disciplines <small>Where else do we see it?</small>	Change over Time <small>How is it/was it/will it be?</small>	Multiple Perspectives <small>Who or what sees it differently?</small>
Unanswered Questions <small>"Here be dragons."</small>			
Language of the Discipline			

110

Resource Review

111

But first, video.

112

Begin Day 2

113

The part where Lisa tells a story.

114

decide
on your
action

115

Yesterday Takeaway



116

Disrupting Frames

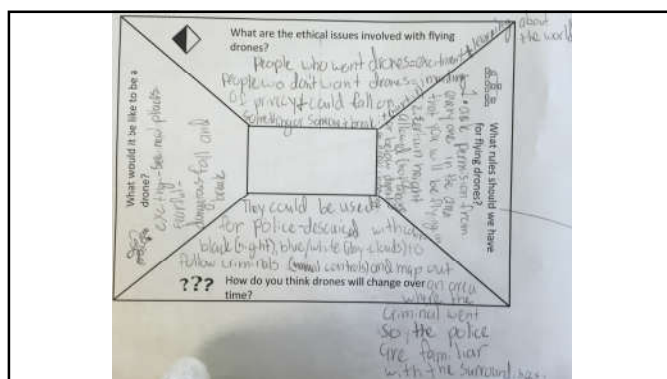
117



118



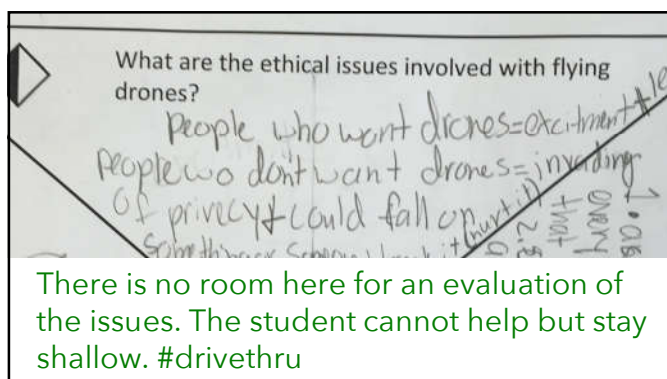
119



120

What-itis is too shallow for our purposes.

121



122

There is no room here for an evaluation of the issues. The student cannot help but stay shallow. #drivethru

What are the ethical issues involved with flying drones?

people who want drones = excitement
 people who don't want drones = invading of privacy & could fall on (hurt it)

Especially distressing, as this is clearly a kid who cares.

123

Modest, yet important, possible change

Which of the ethical issues surrounding drones do you feel is...

...most difficult to solve?
 ...most likely to impact safety?
 ...least likely to be an issue in twenty years?

124

How do you think drones will change over time?

follow criminals (control controls) and map out where the criminal went so the police are familiar with the surroundings.

Compare the development of satellites with the changes in drones over time.

125

What would it be like to be a drone?

exciting - see new places

- ∞ What would be the best thing about being a drone?
- ∞ What would be the scariest thing about being a drone?
- ∞ How do drones feel about birds?
- ∞ Are drones more envious of birds or kites?

126

What rules should we have for flying drones?

1. ask permission from every one in the area that you will be flying in

Give it a shot.
 Think of a better question.

127

Oh, here's something else I don't like. #biglist

128

Teacher Directions

This depth and complexity frame is an alternative to the traditional biography report.

Students can use it to report on a quick research project or it can be part of a longer unit of study.

Students complete each section of the frame. The center space is provided for students to either draw or find a picture of the person they are researching.

129

What is the person most famous for? Provide a famous quote from the person and explain its meaning.

Provide 8-10 facts about the person's life.

Hand-drawn pictures of the person you are researching. You can use a computer to search for images. Provide evidence to support your research.

??? What are 2 unanswered questions you have about this person? Research the answers.

130

Cute is not synonymous with high-level thinking.

131

Don't do this. Like, ever. Or I'll tell Santa.

132

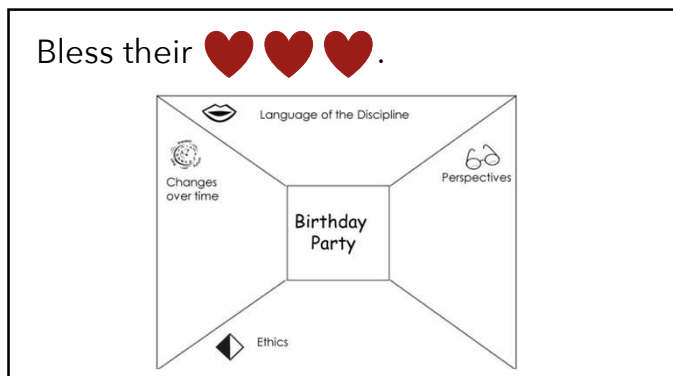
And we'll pull your Guild card if you do this:

133

Double up the icons in a double frame!

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Differentiation for Gifted & Talented Learners
M. Griffiths 2017

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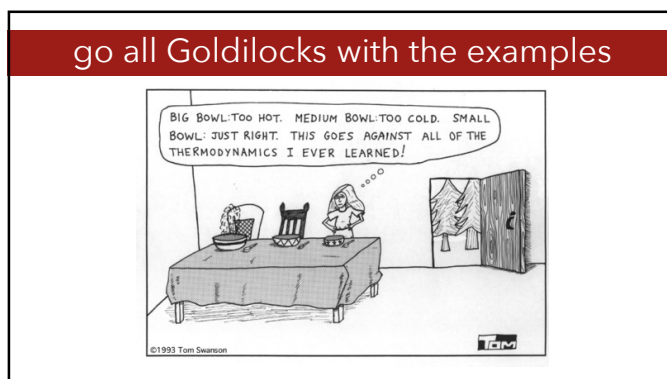
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Just say no.

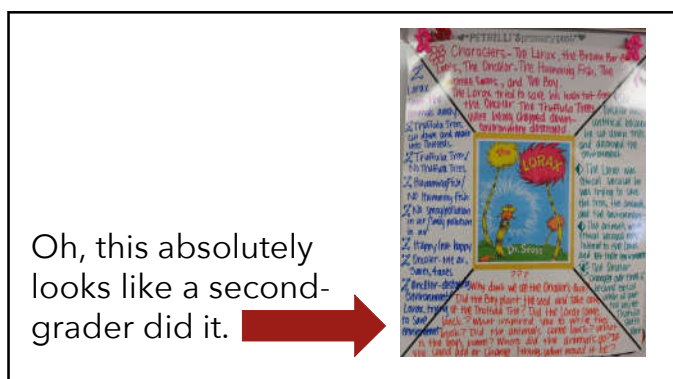
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It's all and always about the *questions.*

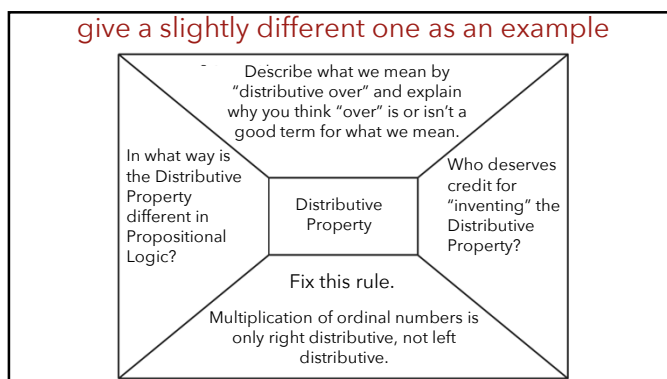
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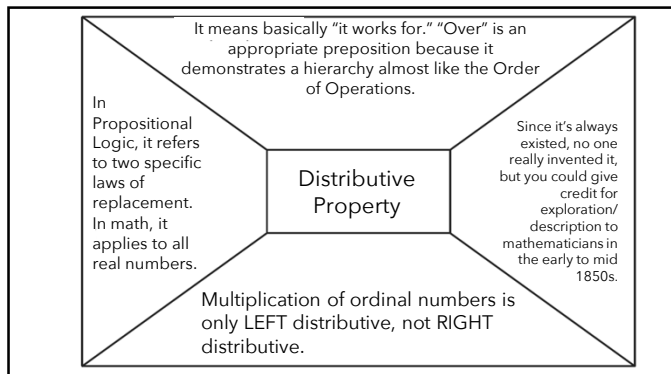
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In my examples, I want to show expected levels of:

- ∞ response length
- ∞ depth of thinking
- ∞ precision

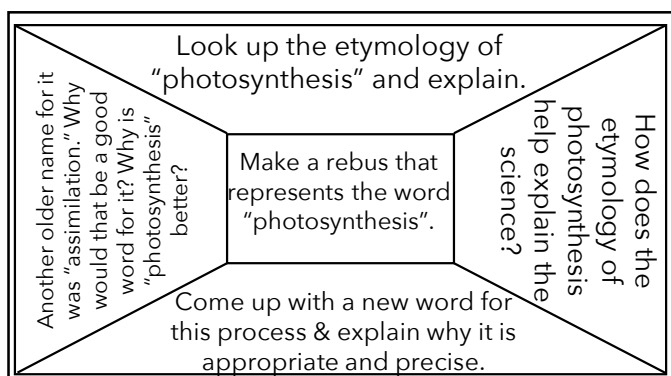
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Why use a frame, anyway?

143



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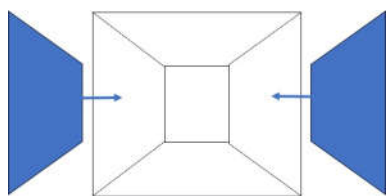
I've got three ideas for this
(and there are more, more,
more!).

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Idea #1: Have students work in a
group using the same Frame.
I call this "Break Apart."

148

Give each group 2 copies of the frame.
Have them cut one into the different sections
and keep one for the final product.



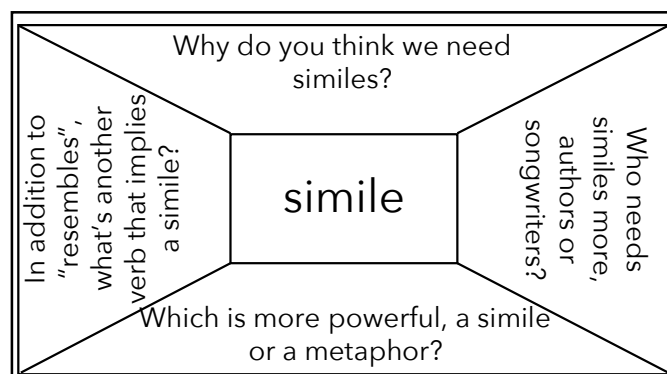
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Idea #2: Have students respond to
different questions using the same
prompts & same topic.

150

Okay, so my high level
kids do this:

151



152

Then my on level kids do this (note the SAME content, SAME elements):

153

Which do you think is more common, similes or metaphors?

Which you prefer, similes or metaphors?






simile

Do you see more similes now than you did last year?

"like", "as", "than" or a verb such as _____

154

You can make this self-differentiating.

 _ + _ =	 = _ + _ +
 30	
 _ + _ =	 = _ + _ +

155

Idea #3: Use same prompts and questions, but different topic.

156

Who uses these?

Identify 3 words associated with them that are also used with something else.

map projections

Do you think that digital formats will ever replace them completely?

If you could only have one, which would you choose?

157

Who uses these?

Identify 3 words associated with them that are also used with something else.

maps

Do you think that digital formats will ever replace them completely?

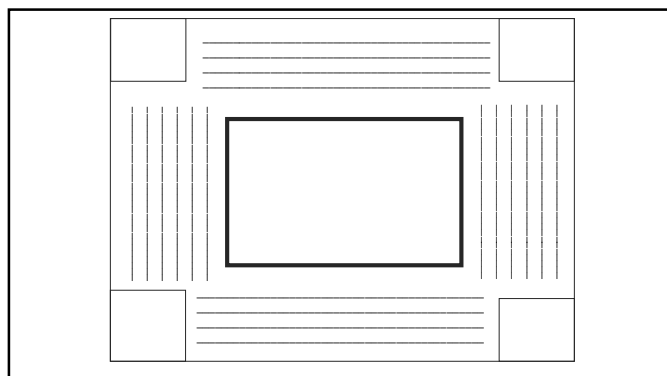
If you could only have one, which would you choose?

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3) Help students unpack their thinking.

159



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What was your first clue that it was going to be a challenge?

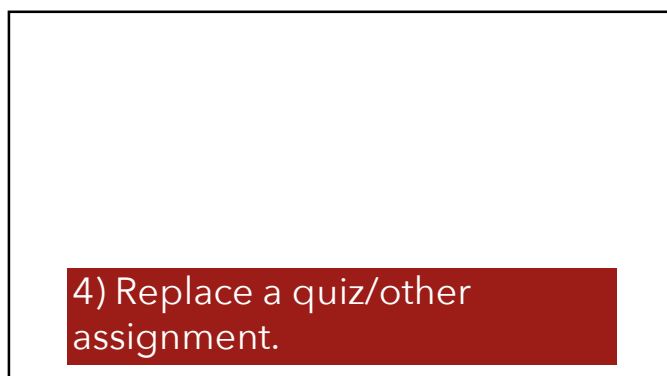
If you had to solve it again, what would you do differently?

What strategy did you try first?

What was the most difficult problem on the test for you?

Scale of 1 - 10: how anxious did you get?

161



4) Replace a quiz/other assignment.

162

Rewrite your favorite line of the play in a different verb tense or voice.

Write one fact you found interesting from the "The Ancient World and Ours" section.

Write a Rules question about the Sun God.

We're reading an abridged version. Why might that be a bad idea?

Which Odysseus would make a better president, the one in the *Iliad* or the one in the *Odyssey*?

163



5) Allow for interest-driven engagement.

164

Which part of a cell would you most like to be?

Which would you rather have a poster of in your room, a plant cell or an animal cell?

cells

Would you rather study cells or atoms?


How good of a job did I do teaching you about cells? How good of a job did you do learning?

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6) Integrate a graphic/design element

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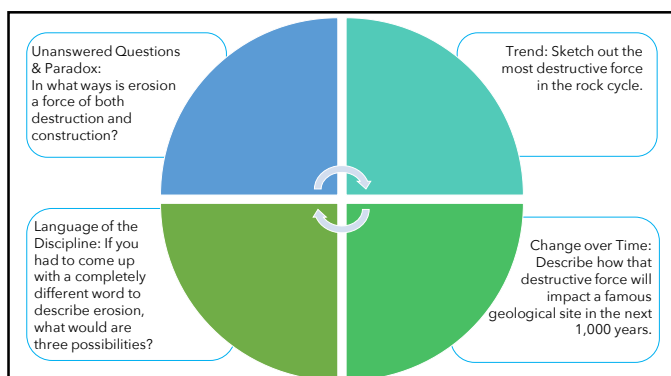
<p>What is one question you'd need to ask to know if rules of lab safety are being followed here?</p>	<p>What is something that could be done to be more safe here, even if it isn't an actual rule?</p>
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Be a shape shifter.

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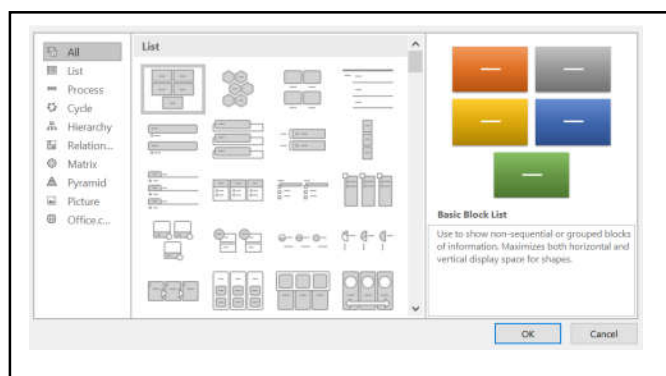
Unanswered Questions & Paradox: In what ways is erosion a force of both destruction and construction?

Trend: Sketch out the most destructive force in the rock cycle.

Language of the Discipline: If you had to come up with a completely different word to describe erosion, what would be three possibilities?

Change over Time: Describe how that destructive force will impact a famous geological site in the next 1,000 years.

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Have them *trade frames*.

171

Have them *add on*.

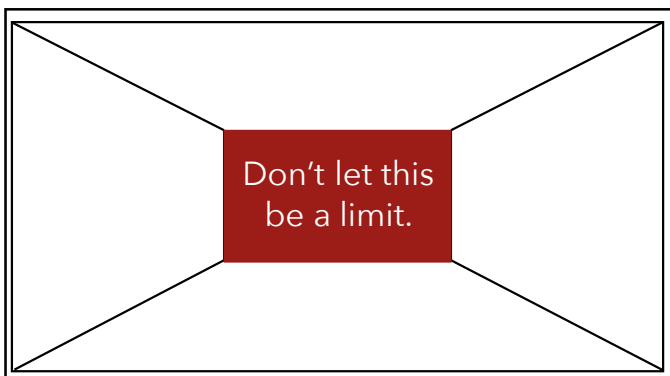
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Best of four...

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Try a 3D frame.

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Disrupting Frames

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