

Using the GED® Test's High Impact Indicators to Drive Instruction

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Session Objectives



- Discuss high impact indicators and relationships
- Identify selected skill sets of the High Impact Indicators
- Explore different ways to integrate similar skill sets across content areas and share selected research-based strategies

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Here We Are!

- Please state your name, organization, current position, and time in adult education.
- 2. What are your goals for this session?
- 3. How do you think this session will benefit you and your students?
- 4. What assets do you have that will contribute to this session?







What are *High Impact Indicators*?

- Important skills that are widely applicable
- May currently receive light coverage during GED[®] test preparation
- Lend themselves to straightforward instruction



Targets →Indicators →Application

- Assessment targets describe the general concepts that are assessed on the GED[®] test
- Indicators are fine-grained descriptions of individual skills contained within an assessment target
- Application describes what to look for in student work

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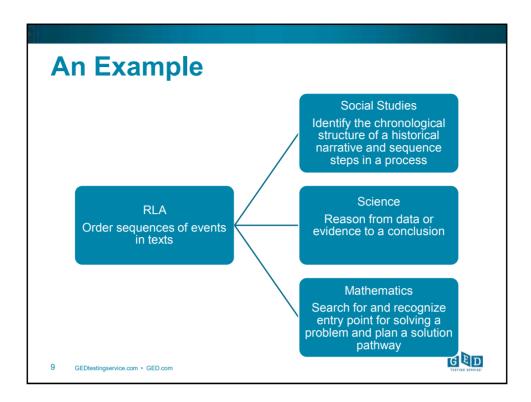


It's All About Relationships



- Assist instructors in creating instructional plans that address the maximum number of skills
- Assist students in applying skills in multiple ways and in a variety of contexts





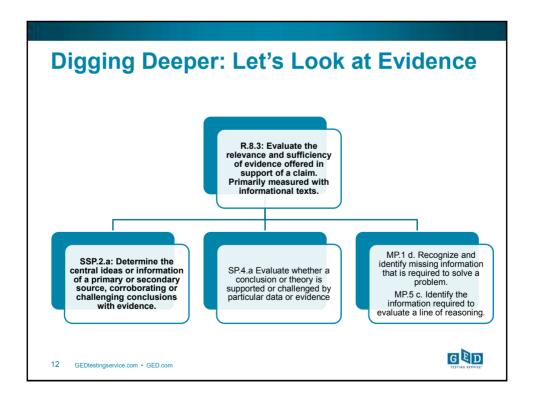
What do you think?

As you looked at RLA HII and indicators for Social Studies, Science, and Math:

- · What are the skills to be taught?
- How do you currently teach these skills?
- In what academic area do you usually teach sequential order?
- How could you transfer your lessons/strategies to the other academic areas?







Where do we see evidence on the test?

- Constructed responses extended and short answer
- Technology-enhanced items
- Even math think word problems

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High Impact Indicator for RLA

Indicator	What to look for in student work. The student can:	
R.8.3: Evaluate the relevance and sufficiency of evidence offered in support of a claim. Primarily measured with informational text.	 explain how a particular piece of evidence is relevant to a point an author is making. explain how a particular piece or pieces of evidence are sufficient to justify an author's singular point or overall message. distinguish between irrelevant and relevant evidence. distinguish between an idea that has sufficient evidence to support it and one that does not. distinguish between explanation and evidence. distinguish between reasoning and evidence. make judgments on either the relevance or sufficiency (or both) of single and multiple pieces of evidence. 	

Indicator for SS

Indicator	What to look for in student work. The student can:
SSP.2.a: Determine the central ideas or information of a primary or secondary source document, corroborating or challenging conclusions with evidence.	 differentiate between the concepts of topic and main idea. identify the topic and/or main idea of a piece of text. identify supporting details for a given main idea. summarize a piece of text. fully explain relevant details in the text that support the main idea. locate a single piece of evidence in the text. located multiple pieces of evidence in a text. differentiate between relevant and irrelevant evidence. use evidence to support or challenge an author's conclusion.

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Indicator for Science

Indicator	What to look for in student work. The student can:
SP.4.a: Evaluate whether a conclusion or theory is supported or challenged by particular data or evidence.	 identify and explain why the evidence supports the proposed claim or solution. identify and explain which piece of data supports or contradicts the given hypothesis. Identify multiple reasons a piece of evidence supports a theory or hypothesis and compare those reasons to each other. identify which scientific model would be weakened or strengthened by particular evidence. fully explain why given evidence supports a scientific theory. fully explain why given evidence challenges a scientific theory.



Indicator for Math

Indicator	What to look for in student work. The student can:
MP.1 d: Recognize and identify missing information that is required to solve a problem. MP.5 c: Identify the information required to evaluate a line of reasoning.	 deconstruct word problems. identify missing information. determine information needed to solve a problem. problem solve through a step-by-step process.

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Looking a Little More Closely

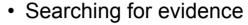
RLA

R.8.3: Evaluate the relevance and sufficiency of evidence offered in support of a claim. Primarily measured with information in a text.

igh Impact Indicato	r Related Ind	ed Indicators from Other Content Areas			
RLA	Social Studies	Science	Mathematical Reasoning		
3.5: Evaluate the wearened and cufficiency was a common and cufficiency many and cufficiency many property of calam. Imarily, measured with romational texts.	SSP11a Determine the details of what is exploitly stated in so what is exploitly stated in source and make the property stated in source and make logical inferences or valid cidims based on evidence. SSP2.2a Determine the central states or information based on evidence. SSP2.2a Determine the central states or information based on evidence. SSP2.2a Determine the procession with very source, composition structure of a make the procession of the control of the central states of a make the central states of a make the central states of a make the central states of the central states of the central states of the central states of the states of the central s	explain textual scientific presentations SP.2.a identify possible sources of error and after the design of an investigation to ameliorate that error SP.2.c identify the strength and weaknesses of one or			

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Incorporating Strategies in the Classroom





- Citing the evidence
- Connecting the evidence

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What is evidence?

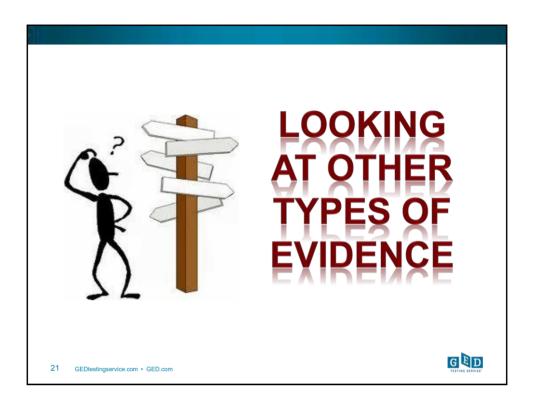
Facts, documentation, or testimony used to strengthen a claim, support an argument, or reach a conclusion.



Evidence can be presented as:

- Quotations
- Paraphrasing
- Summaries
- Hard facts or visual representations (statistics, data, charts, graphs, photographs, illustrations)





Type of Evidence	Definition
Factual	Truthful statements that cannot be denied. Statements that the average person may know or which can be proven.
Statistics or Data	Numerical facts; can be presented in raw numbers, percentages, or fractions.
Examples or Anecdotes	Real-life situations, events, or experiences that illustrate a position; anecdotal stories that help explain an author's claim.
Expert Testimony	The observations or conclusion of someone who is considered highly knowledgeable because he/she is an expert in a particular field of study or occupation; someone who has firsthand knowledge and experience.
Logical Reasoning	An explanation which draws conclusions that the reader can understand; a discussion which helps the reader understand or make sense out of facts or examples offered.
Emotional Appeal	Use of sympathy, fear, loyalty, etc. to persuade; manipulates the reader's emotions – ethos, pathos, logos.

RLA - Where's the Evidence?

GED® RLA Source Text and Prompts for Classroom Practice

Passage #1 - Are Tweens Ready for Cell Phones?

Source Material

Speech: "Tweens" Are Ready for Cell Phones by Deborah Pendergas

"Safer Kids Summit

Thank you for inviting me to the first "Safer Kids Summit." We are here to discuss ways to keep our children safe in an increasingly complex world. Today's focus is on technology—specifically on the ideal age to give kids their own cell phones. As a representative of a large telecommunications company, I receive many inquiries from parents on this topic, and this is what I tell them: It depends on the child, of course, but in general, age 10 is just about right.

A 2012 survey by the National Consumers League backs me up. The survey found that almost 60 percent of children ages 8 to 12 already have cell phones. These "tweens" can contact their parents at any time, and vice versa, giving the kids a sense of empowerment and their parents a feeling of security. Caroline Knorr, of the group Common Sense Media, says, "We want our kids to be independent, to be able to walk home from school and play at the playground without us. We want them to have that old-fashioned, fun experience of being on their own, and cell phones can help with that. "Picture the following scenario." You told your fourth-grader that you would pick her up after school, but you are stuck in traffic. She is waiting for you...and waiting, and waiting, But if you both have cell phones, you can call her to let her know you are delayed, and she can go back inside the school, where there are adults around. You both breathe a sigh of relief

Psychologists tell us that the period between ages 10 and 12 is one of growing independence. It is a time to teach children about responsibility, and to give them opportunities to earn our trust. Providing a 10-year-old with a cell phone offers an ideal way to achieve these goals and gives parents peace of mind as well.

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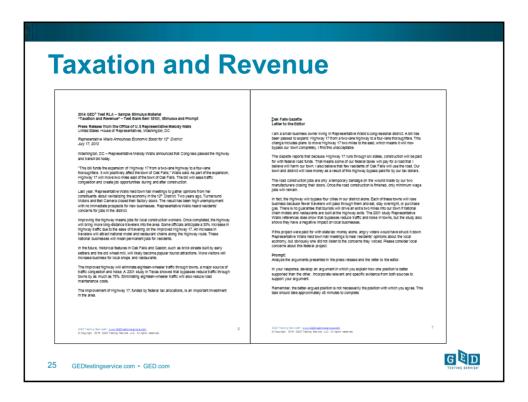
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Different Types of Evidence Type of Evidence Samples Supporting an Author's Claim Factual Truthful statements that cannot be Cell phone usage among denied. Statements that the average "tweens" has grown rapidly person may know or which can be proven Numerical facts; can be presented in The survey found that almost Statistics or Data 60 percent of children ages 8 raw numbers, percentages, or to 12 already have cell phones Examples or Real-life situations, events, or Picture the following Anecdotes experiences that illustrate a position; scenario: You told your anecdotal stories that help explain fourth-grader that you would an author's claim. pick her up after school, but you are stuck in traffic **Expert Testimony** The observations or conclusions of Psychologists tell us that the someone who is considered highly period between ages 10 and knowledgeable because he/she is an . is a time to teach children about responsibility, expert in a particular field of study or occupation; someone who has firstand to give them hand knowledge and experience. opportunities to earn our Logical Reasoning An explanation which draws Providing a 10-year-old with conclusions that the reader can a cell phone offers an ideal understand: a discussion which way to achieve these goals. helps the reader understand or make sense out of facts or examples

Use of sympathy, fear, loyalty, etc. to persuade; manipulates the reader's

emotions - ethos, pathos, logos

Emotional Appeal



Interact with the Text

Read the stimulus material, underline the evidence that supports the road construction

Circle or highlight the evidence that does not support the road construction.

Improving the highway means jobs for local construction workers.

The improrved highway will eliminate eighteen-wheeler traffic through towns...

..road construction is only a temporary bandage

Once the road construction is finished, only minimum wage jobs will remain.

Remember, evidence can be factual, statistics/data, examples or anecdotes, expert testimony, logical reasoning, emotional appeal.

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What did you find?

	Both Sides Now				
Evidence that Supports		Evidence that Opposes			
	Question or statement				
	Which position is best				
	supported?				
Decision (Claim)					
Reasons (Analysis/Evaluation)					

- List the evidence that supports
- List the evidence that opposes
- Evaluate the evidence
- Select the position that is better supported

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What reasons led to your decision?



- Was it based on evidence?
- What evidence was the strongest?
- Is it a position that you personally support?

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State-Cite-Explain

State your claim/argument	State the idea you had about the text.
Cite what in the text led you to the idea	Give supporting evidence from the text (by paraphrasing or directly quoting from the text). If you are directly quoting from the text, you must use quotation marks. Sentence starters = In the first paragraph, the author saysThe text statesThe text describes/For exampleThe author explainsEarly in the text, the author/For instance.
Explain the evidence	Explain how the quote(s) or paraphrase(s) you pointed out support your idea. Sentence starters = This showsThis is becauseThis meansThis revealsThis illustratesThis highlights the difference between

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Modeling – Citing the Evidence

- · Question: Will the highway and transit bill be beneficial?
- As a class, we will read the two stimulus items.
- As we read, we will highlight in yellow (or underline in pencil)
 the evidence that supports the benefits of the highway and
 transit bill. We will highlight in blue (or underline in pen) the
 evidence supporting that the highway and transit bill will be
 detrimental.

The goal is for students to be able to cite several pieces of textual evidence to support analysis of what the text says explicitly as well as inferences drawn from the text.



Modeling – Citing the Evidence

- After you read and find the information from the text that will help you
 to develop your claim, you will use the graphic organizer entitled:
 State, Cite, Explain.
- · Write down the question.
- State your claim the idea you had about the text (if you are responding to a specific question, be sure your idea restates the question).

Question	State	Cite	Explain
Is the highway and transit bill beneficial?	State your claim - the idea you had about the text.		

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Modeling – Citing the Evidence

- · Now give supporting evidence from the text.
- To cite explicitly, paraphrase or use quotes from the text.
- If you use direct quotes from a text, you must use quotation marks.
 You should combine what the reading says and your thoughts
 (inferences) to answer the question (Is the highway and transit bill
 beneficial?) to create new meaning -- the inference. Place the
 evidence you found from the article in the (Cite) box.

Question	State	Cite	Explain
Is the highway and transit bill beneficial?	State your claim - the idea you had about the text.	Cite what in the text led you to that statement or claim.	



Modeling – Citing the Evidence

 Finally, explain how each piece of evidence supports your idea.

Question	State	Cite	Explain
Is the highway and transit bill beneficial?	State your claim - the idea you had about the text.	Cite what in the text led you to that statement or claim.	Explain how each piece of evidence supports your idea/claim

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Putting It All Together – Citing the Evidence

Question	State	Cite	Explain
Is the highway and transit bill beneficial?	The bill will prove detrimental because the research provides strong arguments against it.	Improving the highway means jobs for local construction workers.	Because the construction jobs are temporary, they will not create a boom in the district's economy.



In Social Studies . . .

- When reading primary and secondary sources, students need to be able to:
 - locate a single piece of evidence in the text.
 - locate multiple pieces of evidence in a text.
 - differentiate between relevant and irrelevant evidence.
 - use evidence to support or challenge an author's conclusion.

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In Science . . .

- Skills of "Applying Science Concepts"
 - Using information
 - Explaining the connections
 - Justifying a text-based line of reasoning
 - Incorporating elements (evidence) from text or graphic



How About Math?

Effective Readers = Effective Problem Solvers

- Locate key information
- Distinguish between main ideas and supporting details (evidence)
- Evaluate the evidence
- Connect new information (evidence) with existing ideas
- · Organize information in ways that make sense

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Searching for Evidence in Math

Let's use K - N - W - S

K	N	W	S
What facts do I KNOW from the information in the problem?	What information do I NOT need?	What does the problem WANT me to find?	What STRATEGY or operations will I use to solve the problem?

Reading and Writing to Learn in Mathematics: Strategies to Improve Problem Solving by Clare Heidema at www.ohiorc.org/adilit



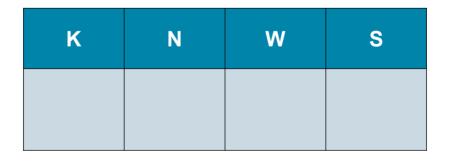
Example K-N-W-S

An apartment building contains 12 units consisting of one- and two-bedroom apartments that rent for \$360 and \$450 per month, respectively. This is \$25 higher a month than other apartments in the area. When all units are rented, the total monthly rental is \$4,950. What is the number of two-bedroom apartments?

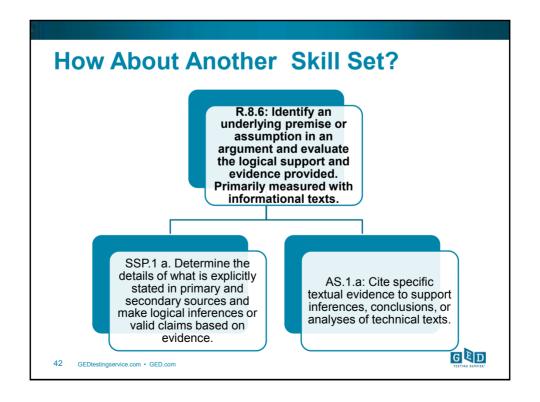
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12 units \$360 per month for one-bedroom apt. \$450 per month for two-bedroom apt. Total monthly rent = \$4,950	\$25 higher a month than other apt. in area	What is the number of two-bedroom apts.?	Make a chart Write an equation Guess, check, revise Work backwards

It's Your Turn!

Sam is preparing to visit his family who lives 330 miles from his home. His brother Jason lives only 75 miles away. If Sam travels at the speed of 55mph, how long will it take Sam to get to his destination?







Making Inferences

Inferring—making inferences—is often described as making a logical guess or "reading between the lines." Making an inference is a lot like the chemical process of forming a chemical compound—when two elements combine and form a new substance. Readers make inferences when they are able to take their own experiences and combine them with information they gather from what they read. The result is that they create new meaning or draw a conclusion that isn't explicitly stated in the reading (Zweirs, 2005).

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Where do we see inferences needed on the test?

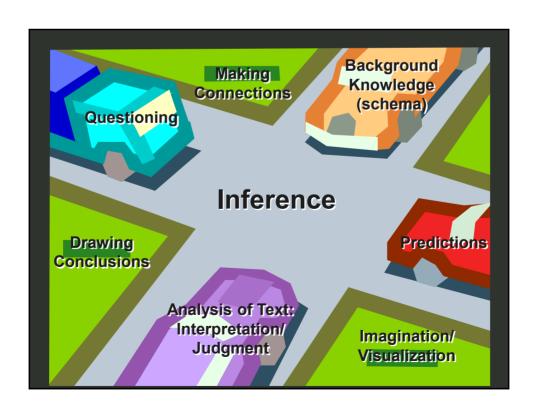
- Constructed responses extended and short answer
- Fiction and nonfiction texts through technology-enhanced items
- Graphics

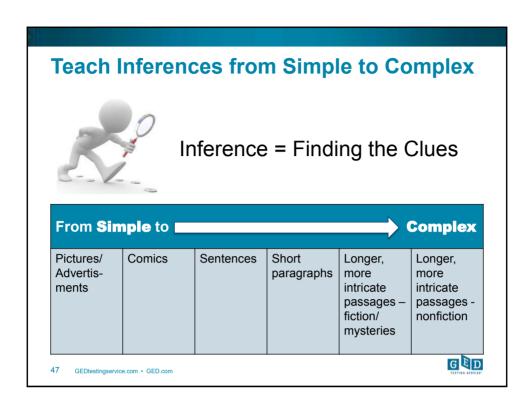


Strategies for Making Inferences

- Step 1: Gather clues and reading "between the lines."
- Step 2: Reaching conclusions based evidence and reasoning (does it make sense?)







Asking Questions of Photographs

Prompts	Answers
What do I see? (What do you observe? What else?)	
What does it remind me of? (Another image? A personal experience?)	
What is the artist's purpose? (To Analyze? Persuade? Express? Document? Entertain?)	
So what? (Why does it matter? What is the significance?)	

Using Photographs

- What do you observe in this picture?
- What does it remind you of?
- What is the photographer's purpose?
- What inferences can you make based on what you see in this picture?





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Using Photographs

- What do you observe in this picture?
- What does it remind you of?
- What is the photographer's purpose?
- What inferences can you make based on what you see in this picture?



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Teaching Inferences with Advertisements What does the graduate think his gift is? How do you know? What is his actual gift?

HOW

CREATIVE + MEDIA
STRATEGY

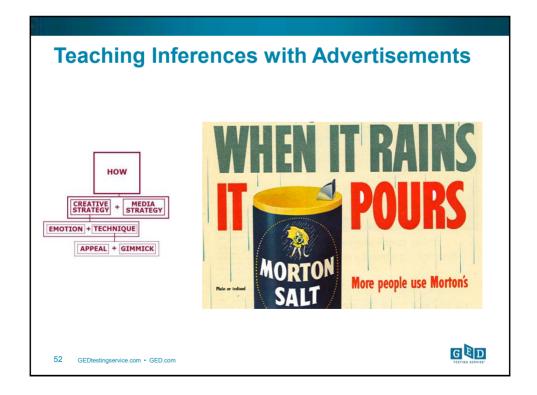
EMOTION + TECHNIQUE

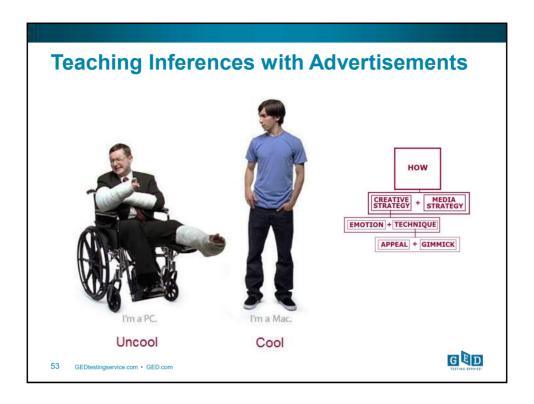
APPEAL + GIMMICK

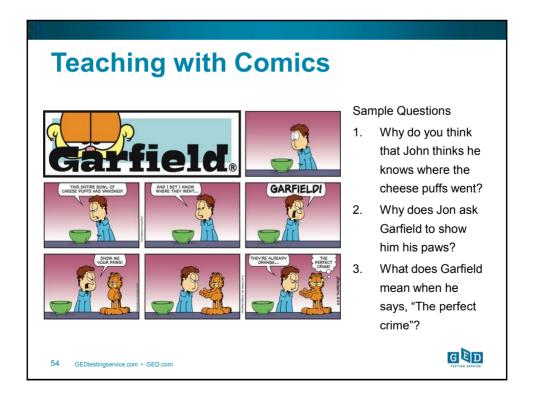
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Teaching with Comics

Sample Questions

- 1. What do you see?
- What do you know about excuses on not having your homework done?
- 3. What does the student mean when he says, "I ate my homework."?

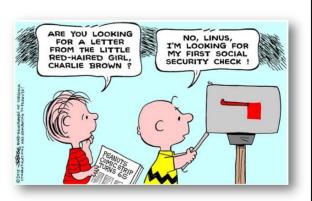


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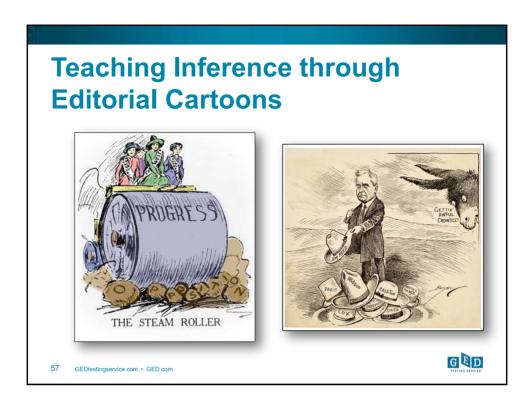
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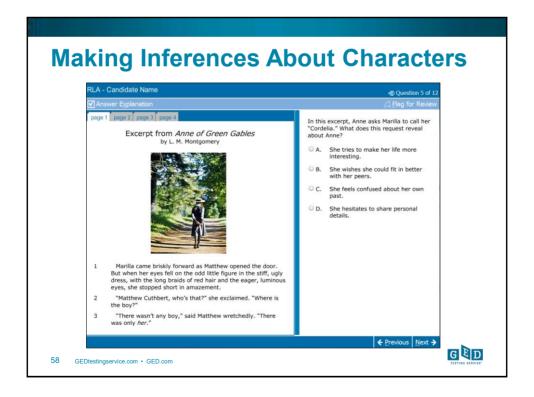
Teaching with Comics

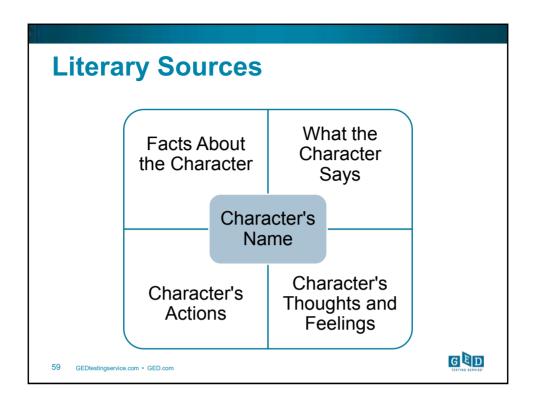
- 1. What do you see?
- What does Charlie Brown mean?
- 3. What can you infer from the comic?



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Fiction/Literary

- What does the character do?
- · What does the character say or think?
- How do others feel about the character?
- How does the character change?
- What is the conflict that is expressed?
- What is the author's theme or point of view?

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It's Your Turn!

Broken Promises

Facts About the Character Says

Character's Name

Character's Character's Thoughts and Feelings

From the story, how would you describe the wife's feelings for her husband?

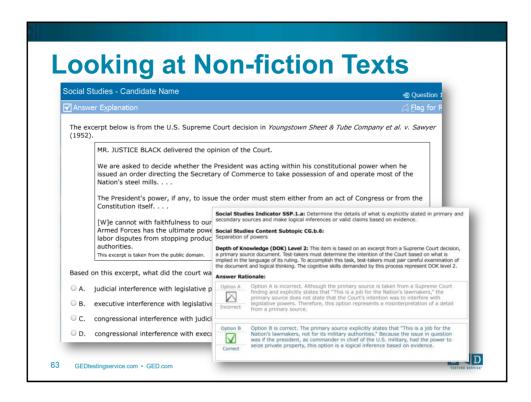
- What does the character do?
- What does the character say or think?
- How do others feel about the character?
- How does the character change?

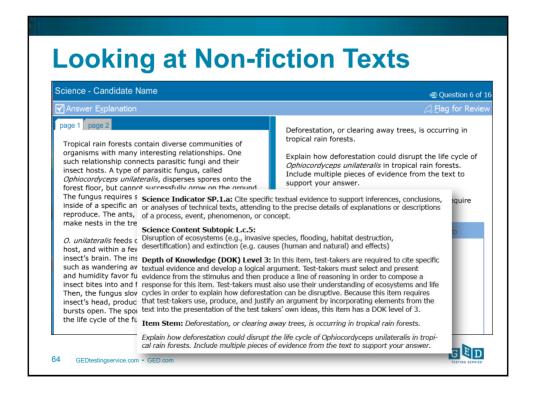
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Example: It Says – I Say – And So

Question	It Says	I Say	And So
Read the question.	Find information from the text to help answer each question – paraphrase or quote answers from text.	Consider what you know about the information.	Put together the information from the text with what you know, then answer the question.
Why are forest fires on the increase in the Black Hills of South Dakota?	For the last several years, precipitation amounts snowfall have decreased.	Less snowfall could mean dry conditions throughout the Black Hills	Dry conditions resulting from a decrease in precipitation lead to conditions that might make fires more likely to occur.



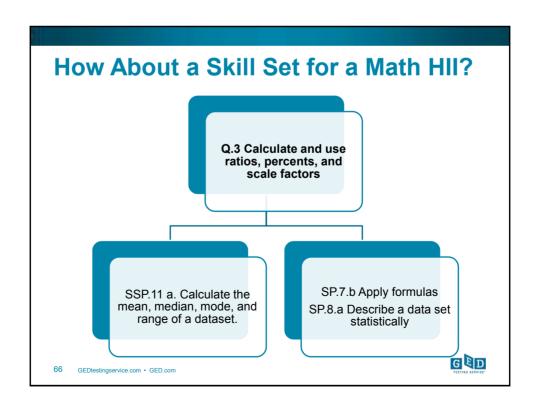


When teaching inference, show students how to . . .

- Recognize the antecedents for pronouns
- Figure out the meaning of unknown words from context clues
- Figure out the grammatical function of an unknown word
- Understand intonation of characters' words
- Identify characters' beliefs, personalities, and motivations
- Understand characters' relationships to one another

- · Provide details about the setting
- Provide explanations for events or ideas
- Offer details for events or their own explanations of the events
- Understand the author's view of the world
- · Recognize the author's biases
- Relate what is happening in the text to their own knowledge of the world
- Offer conclusions from facts presented in the text





It's the Same!

- Interpreting graphics and scale factors
- Determining statistical data mean, median, mode
- Applying formulas
- · Using a calculator



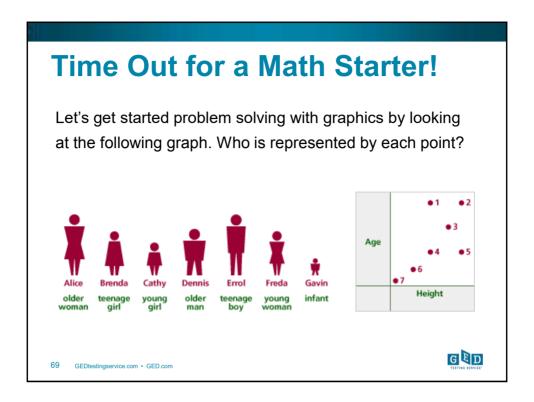
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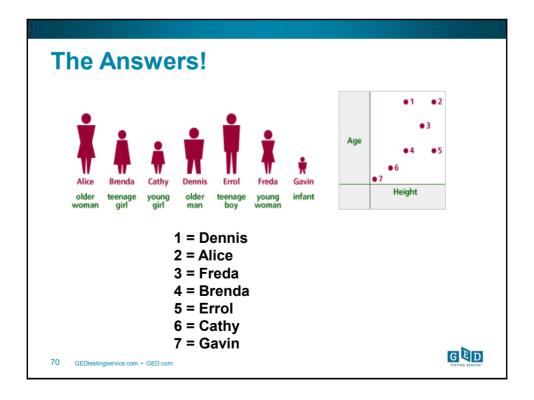
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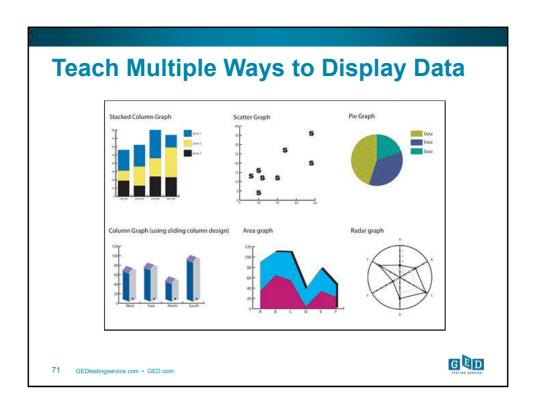
Where do we see statistics, data, and math skills on the test?

- Questions assessing statistics and data indicators on social studies and science
- Use of calculator and formulas in different content areas
- Charts, tables, and graphs









Representing Data in Different Formats

Think of the simplest way you can organize the data below, showing the length of nails found in a packet of assorted nails.

Length of Nails (mm)

11 22 29 15 17 27 21 23 27

26 19 16 11 10 16 15 21 21 17 15 23 20 16 17 25 16

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One way is to arrange it in increasing order.

Nails arranged in order of increasing length (mm)
10 11 11 15 15 15 16 16 16
16 17 17 17 19 20 21 21 21 21 22 23 23 25 26 27 27
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Use a Tally Table

Nails arranged in order of increasing length (mm)

10 11 11 15 15 15 16 16 16

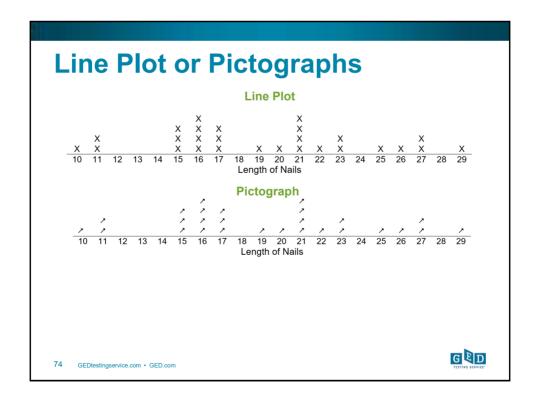
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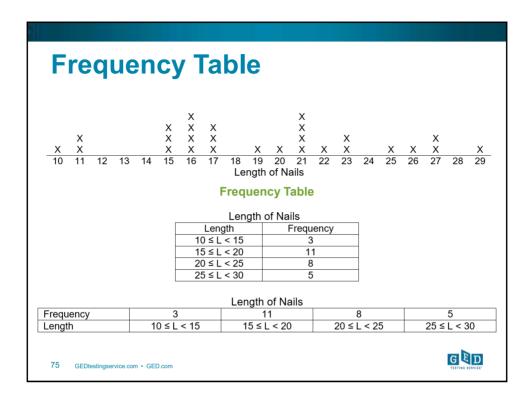
Length	Tally	Length	Tally
10	I	20	1
11	II	21	IIII
12		22	I
13		23	II
14		24	
15	III	25	I
16	IIII	26	I
17	III	27	II
18		28	
19	I	29	I

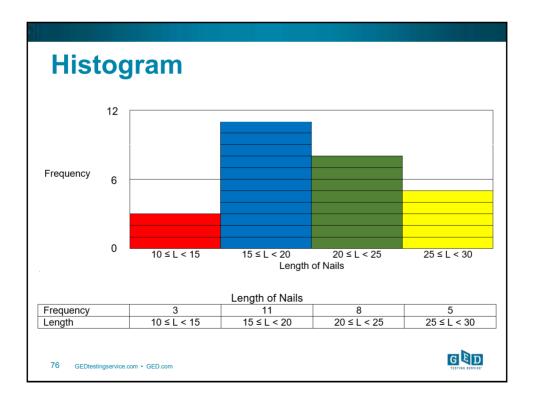
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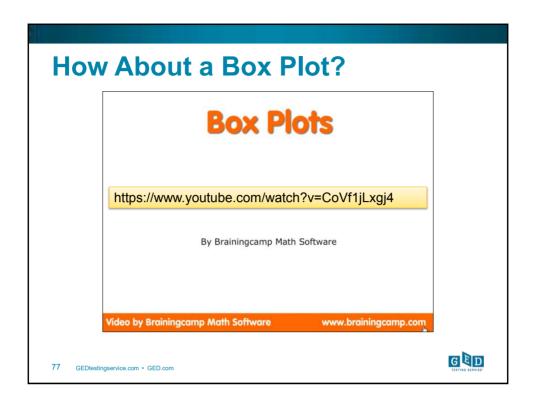
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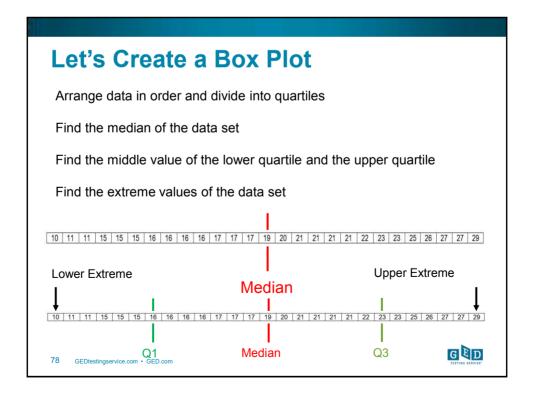


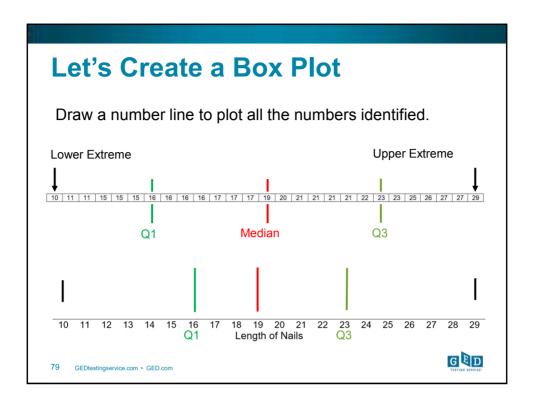


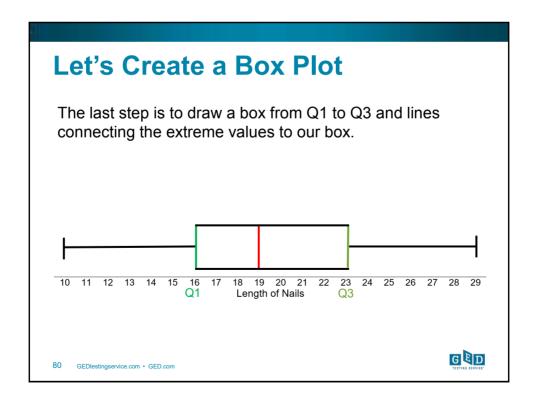












Teach Data Descriptors

Measures of Central Tendency

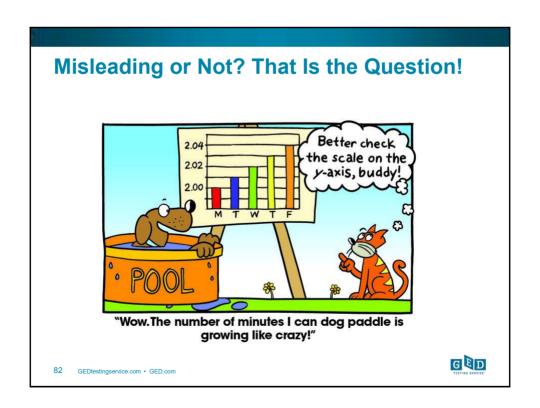
- ✓ Mean (Average)
- ✓ Median
- ✓ Mode

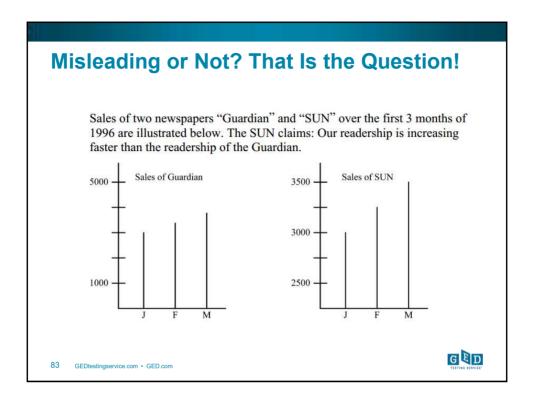
Measures of Variability (Spread)

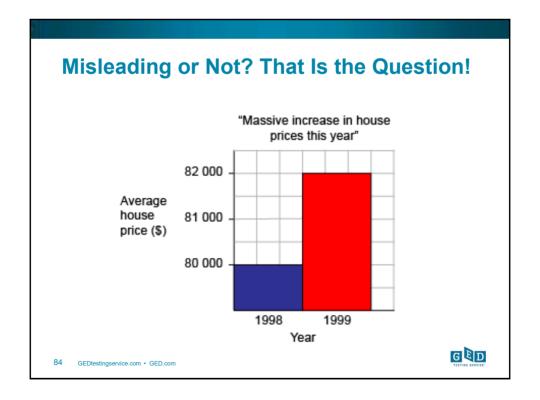
- ✓ Range
- ✓ Mean Absolute Deviation
- ✓ Standard Deviation

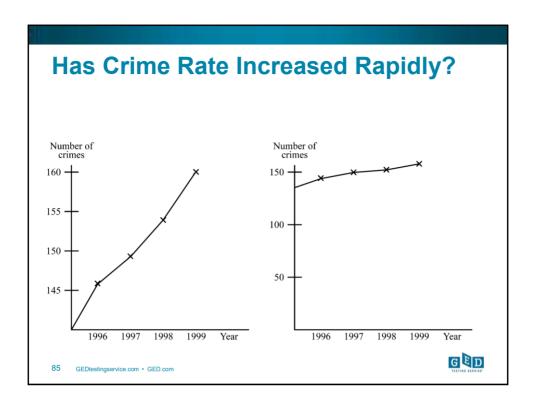
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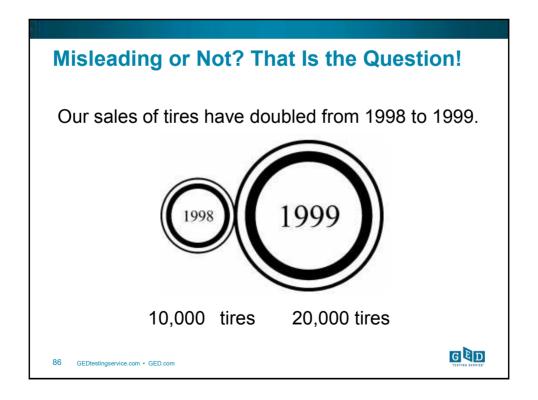


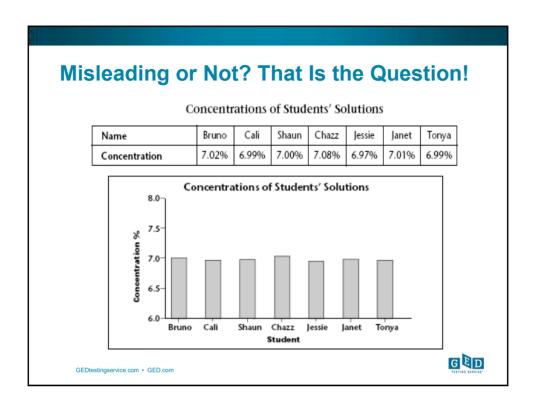












Resources for Graphics

Data Representation Module 6: Unit 3

https://wikieducator.org/images/9/90/JSMath6 Part2.pdf

BBC: Bitesize and Skillswise

- http://www.bbc.co.uk/schools/gcsebitesize/
- http://www.bbc.co.uk/skillswise/mathsmaths/statistics/

Math is Fun!

http://www.mathsisfun.com/data/

KET Targeted Math

 http://tdcms.ket.org/targetedmath/L.11GraphsChartsandTable s.pdf

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Getting Started

- Review the High Impact Indicators and Relationships
 Between the High Impact Indicators and Other
 Indicators chart
- Determine the strategies and resources that you use to teach each HII
- Identify resources and activities that apply the strategy to other content areas
- Teach the strategy using approaches such as "making thinking processes visible" and "scaffolding"
- · Provide students with practice in applying the strategy to
- ⁹⁰ different content areas and real-world situations

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Don't Forget!

While focused classroom instruction on High Impact Indicators may quickly and positively impact your students' test performance, remember that HII are not more important than the rest of the indicators. Make sure to also access the Performance Level Descriptors in order to develop an effective GED® Preparation curriculum.

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