Welcome to the GED® Tuesdays for Teachers Webinar

• The webinar will start at 3:30 p.m. (EDT), 2:30 p.m. (CDT).
• If you have a technical question, please type it into the question panel.
• When you log on, check your audio to make sure your headphones are working properly. If you use your phone to call in, be sure to enter the appropriate codes.
  • If you do not hear anything during your audio test, look on the dashboard. Open the “audio” tab and select the option you prefer.
• You will not hear the presenters until 3:30 p.m. when the webinar goes live.
• Check the chat box to see any messages from the presenters.
• Thank you for joining us today.
Ending on a High Note: Celebrate Your Successes!

A Tuesdays for Teachers Webinar by the GED Testing Service®
May 25, 2021
Just So You Know…
Debi Faucette, GEDTS
Senior Director

Susan Pittman,
Education Consultant for PD
In this session, we will...

- Review data from past school year
- Share information that has been learned during the year
- Review tips and strategies to help students do last minute preparation for the GED test
- Preview some of the latest research to highlight some of the challenges that students continue to have in each content area
- Respond to your questions and concerns
Challenges make you discover things about yourself that you never really knew.

—Cicely Tyson
National Data, April 2020 v April 2021: Tests Taken

<table>
<thead>
<tr>
<th></th>
<th>April 2020</th>
<th>April 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tests Taken (All)</td>
<td>6,997</td>
<td>66,694</td>
</tr>
<tr>
<td>Center-based</td>
<td>6,997</td>
<td>50,602</td>
</tr>
<tr>
<td>Online Proctored</td>
<td>0</td>
<td>16,092</td>
</tr>
</tbody>
</table>
National Data, April 2020 v April 2021: Test Takers

<table>
<thead>
<tr>
<th></th>
<th>April 2020</th>
<th>April 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Takers</td>
<td>3,963</td>
<td>39,197</td>
</tr>
<tr>
<td>Test Completers</td>
<td>2,035</td>
<td>11,276</td>
</tr>
<tr>
<td>Test Passers (Graduates)</td>
<td>1,139</td>
<td>9,713</td>
</tr>
</tbody>
</table>
National Data, July 1, 2020-May 23, 2021: Test Delivery Method

<table>
<thead>
<tr>
<th></th>
<th>All Tests</th>
<th>Online Proctored</th>
<th>Center-based</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 1, 2020-December 31, 2020</td>
<td>244,602</td>
<td>52,218 (27%)</td>
<td>192,384</td>
</tr>
<tr>
<td>January 1, 2021-May 23, 2021</td>
<td>276,899</td>
<td>76,133 (38%)</td>
<td>200,766</td>
</tr>
</tbody>
</table>
# Content Area Test Passing Rates

<table>
<thead>
<tr>
<th>Subject</th>
<th>Center-based</th>
<th>Online Proctored</th>
<th>All (Ave for OP &amp; CB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>75%</td>
<td>85%</td>
<td>77%</td>
</tr>
<tr>
<td>RLA</td>
<td>83%</td>
<td>92%</td>
<td>86%</td>
</tr>
<tr>
<td>Science</td>
<td>90%</td>
<td>96%</td>
<td>92%</td>
</tr>
<tr>
<td>Social Studies</td>
<td>84%</td>
<td>92%</td>
<td>86%</td>
</tr>
</tbody>
</table>
May 2021 Statistics

• Average daily GED tests in May = 658
• May 19 had highest number tests delivered at 858
• ~28% of overall testing volume is OP

Since OP Launched. . .
• Total Credentialed = 25,062
• Total Passed Tests = 105,899
• Total Tests Taken = 131,035
Sneak Peek at Trends in Students’ Knowledge & Skill Gaps

The Research says…
How were the content and skills identified?

• identified performance trends based on the field test data
Why are certain knowledge & skills problematic?

• The students may have specific knowledge or skill gaps that need more coverage during GED® test preparation

• The students may need to improve their critical thinking and/or reading skills
Mathematical Reasoning

Content Specialist - Michael Bell
Overview – Two Major Areas of Mathematics Skill Gaps

Skills with non-calculator items
- Ordering fractions and decimals
- Applying number properties involving multiples and factors
- Performing operations on rational numbers

Skills with exponents
- Understanding the laws of exponents
- Working with cubes/cube roots
- Improving skills with exponents and both numerical and algebraic bases
Gap 1: Non-calculator items (examples)

Place 3/9, 4/11, and 3/7 in order from least to greatest.

(Q.1.a)
Gap 1: Non-calculator items (examples)

What is the greatest common factor of 3, 8, and 12? (Q.1.b)

Demonstrate multiple ways to find the GCF.

Choose the greatest

<table>
<thead>
<tr>
<th>Two Numbers</th>
<th>Factors</th>
<th>Common Factors</th>
<th>Greatest Common Factor</th>
<th>Example Simplified Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 and 12</td>
<td>9: 1, 3, 9 12: 1, 2, 3, 4, 6, 12</td>
<td>1, 3</td>
<td>3</td>
<td>( \frac{9}{12} = \frac{3}{4} )</td>
</tr>
</tbody>
</table>

Combine the prime factors

<table>
<thead>
<tr>
<th>Two Numbers</th>
<th>Thinking ...</th>
<th>Greatest Common Factor</th>
<th>Example Simplified Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>24 and 108</td>
<td>( 2 \times 2 \times 2 \times 3 = 24 ) and ( 2 \times 2 \times 3 \times 3 \times 3 = 108 )</td>
<td>( 2 \times 2 \times 3 = 12 )</td>
<td>( \frac{24}{108} = \frac{2}{9} )</td>
</tr>
</tbody>
</table>

Guess and Check

<table>
<thead>
<tr>
<th>Two Numbers</th>
<th>Thinking ...</th>
<th>Greatest Common Factor</th>
<th>Example Simplified Fraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>9 and 12</td>
<td>3 \times 3 = 9 and 3 \times 4 = 12</td>
<td>3</td>
<td>( \frac{9}{12} = \frac{3}{4} )</td>
</tr>
</tbody>
</table>
Gap 1: Non-calculator items (examples)

Multiply $\frac{2}{3} \times \frac{9}{4}$ (Q.2.a)

Do a quick review of the differences between multiplying and dividing fractions!

Example:

$$\frac{1}{2} \times \frac{2}{5}$$

Step 1. Multiply the top numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{2 \times 5} = \frac{2}{10}$$

Step 2. Multiply the bottom numbers:

$$\frac{1}{2} \times \frac{2}{5} = \frac{1 \times 2}{2 \times 5} = \frac{2}{10}$$

Step 3. Simplify the fraction:

$$\frac{2}{10} = \frac{1}{5}$$

Which one is correct?

Example:

$$\frac{2}{3} \times \frac{9}{4}$$

Step 1. Turn the second fraction upside down (it becomes a reciprocal):

$$\frac{1}{6} \text{ becomes } \frac{6}{1}$$

Step 2. Multiply the first fraction by that reciprocal:

$$(\text{multiply tops ...})$$

$$\frac{1}{2} \times \frac{6}{1} = \frac{1 \times 6}{2 \times 1} = \frac{6}{2}$$

$$(\text{... multiply bottoms})$$

Step 3. Simplify the fraction:

$$\frac{6}{2} = 3$$

Graphics from [https://www.mathsisfun.com/](https://www.mathsisfun.com/)
Gap 1: Non-calculator items (examples)

Simplify \(-4 \times 5 + (36 \div 3) \div 2\)
(Q.2.a)

Go from…

To This…

- **P**arenthesis ( ) {} []
- **E**xponents \(n^2\)
- **M**ultiply / **D**ivide \(\div / \times\)
  (left to right)
- **A**dd / **S**ubtract \(+ / -\)
  (left to right)
Gap 2: Exponents

➢ Specific indicators: Q.1.c (laws of exponents); Q.2.c (cubes/cube roots); but NOT Q.2.b (squares/square roots)

➢ Related indicators: geometric formulas (Q.4, Q.5); polynomials (A.1.d – A.1.j); quadratic functions (A.4, A.7.c, A.7.d)

Gaps include expressions with both numerical bases and algebraic bases (i.e., variables).
Gap 2: Exponents

➢ Specific indicators: Q.1.c (laws of exponents); Q.2.c (cubes/cube roots); but NOT Q.2.b (squares/square roots)

➢ Related indicators: geometric formulas (Q.4, Q.5); polynomials (A.1.d □ A.1.j); quadratic functions (A.4, A.7.c, A.7.d)

<table>
<thead>
<tr>
<th>Law</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>$x^1 = x$</td>
<td>$6^1 = 6$</td>
</tr>
<tr>
<td>$x^0 = 1$</td>
<td>$7^0 = 1$</td>
</tr>
<tr>
<td>$x^{-1} = 1/x$</td>
<td>$4^{-1} = 1/4$</td>
</tr>
<tr>
<td>$x^m x^n = x^{m+n}$</td>
<td>$x^2 x^3 = x^{2+3} = x^5$</td>
</tr>
<tr>
<td>$\frac{x^m}{x^n} = x^{m-n}$</td>
<td>$\frac{x^6}{x^2} = x^{6-2} = x^4$</td>
</tr>
<tr>
<td>$(x^m)^n = x^{mn}$</td>
<td>$(x^2)^3 = x^{2*3} = x^6$</td>
</tr>
<tr>
<td>$(xy)^n = x^ny^n$</td>
<td>$(xy)^3 = x^3y^3$</td>
</tr>
<tr>
<td>$(\frac{x}{y})^n = \frac{x^n}{y^n}$</td>
<td>$(\frac{x^2}{y^2})^2 = \frac{x^4}{y^4}$</td>
</tr>
<tr>
<td>$x^{-n} = \frac{1}{x^n}$</td>
<td>$x^{-3} = \frac{1}{x^3}$</td>
</tr>
</tbody>
</table>

Simplify

$(-2)^6 \times (-2)^3]^2$  
$(-2)^6 \times (-2)^3 \times 2$  
$(-2)^6 \times (-2)^6$

When you have the same base, add the exponents

$(-2)^{12}$

Review the product, quotient, and power rules at:
Gap 2: Exponents

➢ Specific indicators: Q.1.c (laws of exponents); Q.2.c (cubes/cube roots); but NOT Q.2.b (squares/square roots)

➢ Related indicators: geometric formulas (Q.4, Q.5); polynomials (A.1.d – A.1.j); quadratic functions (A.4, A.7.c, A.7.d)

Gaps include expressions with both numerical bases and algebraic bases (i.e., variables).
Gap 2: Exponents (examples)

Simplify

\((-2)^6 \times [(-2)^3]^2\)

\((-2)^6 \times [(-2)^3]^2\)

\((-2)^6 \times (-2)^3 \times 2\)

\((-2)^6 \times (-2)^6\)

When you have the same base, add the exponents

\((-2)^{12}\)
Skill Gaps

1. Describe a data set statistically
2. Use counting & permutations to solve scientific problems
3. Probability of Events
Researchers collected data to determine volumetric bone density for four samples. The data are recorded in the table below.

### Bone Density Data

<table>
<thead>
<tr>
<th>Sample</th>
<th>Mass of Sample (g)</th>
<th>Volume of Sample (cm³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.8</td>
<td>22.6</td>
</tr>
<tr>
<td>2</td>
<td>1.7</td>
<td>5.4</td>
</tr>
<tr>
<td>3</td>
<td>3.6</td>
<td>11.3</td>
</tr>
<tr>
<td>4</td>
<td>5.2</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Density (g/cm³) = Mass (g) / Volume (cm³)

What is the average bone density for the data samples provided?

- A. 3.2 g/cm³
- B. 0.36 g/cm³
- C. 0.31 g/cm³
- D. 0.03 g/cm³
Permutations

Make sure students know the difference!

• When the order *doesn't* matter, it is a **Combination**.
• When the order *does* matter it is a **Permutation**.
Probability of Events

What does 80% chance of rain mean?
An 80 percent chance of rain (or of any other kind of precipitation) means the weather forecaster believes there will be an eight in ten chance (or 80 chances out of 100) of measurable precipitation (0.01 inch or more) in the area under consideration during the time interval that is specified in the weather forecast.
# Probability of Events

A committee of three is chosen from five councilors - Adams, Burke, Cobb, Dilby and Evans.

What is the probability Burke is on the committee?

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>3</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abbreviate the names of the five councilors with the letters A, B, C, D and E.

There are 10 possible committees: (A, B, C), (A, B, D), (A, B, E), (A, C, D), (A, C, E), (A, D, E), (B, C, D), (B, C, E), (B, D, E) and (C, D, E).

Of these, Burke is included in 6: (A, B, C), (A, B, D), (A, B, E), (B, C, D), (B, C, E) and (B, D, E).

So:

- The Number of ways it can happen = 6
- The Total number of outcomes = 10

Probability of an event happening = \( \frac{\text{Number of ways it can happen}}{\text{Total number of outcomes}} \)

Therefore, the probability Burke is on the committee = \( \frac{6}{10} = \frac{3}{5} \)
**Science Tools and Equipment**

**Thermometer:** a tool that measures temperature.

**Balance:** used to measure the mass of an object to a known unit of mass.

**Compass:** a tool that uses a magnetized pointer to show magnetic north.

**Barometer:** a weather instrument that measures air pressure.

**Graduated Cylinder:** used to measure the volume of liquids.

Check out: [https://www.slideshare.net/hseufert/science-tools-presentation](https://www.slideshare.net/hseufert/science-tools-presentation)
Don’t Forget Focusing Themes and Content Topics

For more information, check out the GED Assessment Guide – Science
Social Studies

Content Specialist – Patrick Duran
Skill Gaps

1. Identify evidence to support inferences (SSP.1.b)
2. Sequence of events (SSP.3.a)
Evidence and Inferences

A recent magazine article examined government in the United States during the first decades after independence from Britain.

Question:
Which quotation from the article allows a reader to infer that the power of the U.S. government is limited?

A. "A fear of tyranny led to the creation of a national government under the Articles of Confederation, which lasted less than a decade."

B. "As a result, the founders drafted the U.S. Constitution, which addressed weaknesses of the Articles of Confederation."

C. "The U.S. Constitution, ratified over two hundred years ago, greatly changed the relationship between the national and state governments."

D. "The U.S. Constitution included safeguards to protect individual rights against abuse by the government."
Voting – Your Voice

TIMELINE
Voting Rights
By: SKPittman

1787
Right to vote granted to white male landowners

1856
Voting expanded to all white men

1868
14th Amendment - Black males granted the vote

1870
15th Amendment - Can't deny vote based on race

1890
Wyoming gives women right to vote

1894
24th Amendment - No poll tax can be required

1909
Women's suffrage passes in some states

1913
19th Amendment - Women granted right to vote

1920
26th Amendment - 18-year-olds can vote

1947
Native Americans can vote with no barriers

1964
23rd Amendment - D.C. residents vote for President

1965
Voting Rights Act passed

1967
Voting Rights Act strengthened

1971
15th Amendment - Poll taxes and literacy tests for voting prohibited

1993
National Voter Registration Act passed

2000
Voting Rights Act expanded
Don’t Forget Focusing Themes and Content Topics

<table>
<thead>
<tr>
<th>Focusing Themes</th>
<th>Social Studies Topic Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Development of Modern Liberties and Democracy</td>
<td>CG: Civics and Government (50%)</td>
</tr>
<tr>
<td>a. Types of modern and historical governments</td>
<td>a. Key historical documents that have shaped American constitutional government</td>
</tr>
<tr>
<td>b. Principles that have contributed to development of American constitutional democracy</td>
<td>b. Revolutionary and Early Republic Periods</td>
</tr>
<tr>
<td>c. Structure and design of United States government</td>
<td>c. Civil War &amp; Reconstruction</td>
</tr>
<tr>
<td>d. Individual rights and civic responsibilities</td>
<td>d. Civil Rights Movement</td>
</tr>
<tr>
<td>II. Dynamic Responses in Societal Systems</td>
<td>e. European population of the Americas</td>
</tr>
<tr>
<td>e. Political parties, campaigns, and elections in American politics</td>
<td>f. World War I &amp; II</td>
</tr>
<tr>
<td>f. Contemporary public policy</td>
<td>g. The Cold War</td>
</tr>
<tr>
<td></td>
<td>h. American foreign policy since 9/11</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For more information, check out the GED Assessment Guide – Social Studies
Reasoning through Language Arts

Content Specialist – Amy Hathorn
### Skill Gap

**1. Editing Passages**  
a. Technology Enhanced Items  
b. Extended Response

<table>
<thead>
<tr>
<th>MARK</th>
<th>with strong feeling</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMA</td>
<td>Separates things in a list</td>
</tr>
<tr>
<td>SEMICOLON</td>
<td>Separates two complete, related sentences</td>
</tr>
<tr>
<td>COLON</td>
<td>Used to list things</td>
</tr>
<tr>
<td>APOSTROPHE</td>
<td>Shows ownership</td>
</tr>
<tr>
<td>QUOTATION MARKS</td>
<td>Shows a person's dialogue</td>
</tr>
<tr>
<td>PARENTHESIS</td>
<td>Adds more detail</td>
</tr>
<tr>
<td>SLASH</td>
<td>Shows alternatives</td>
</tr>
</tbody>
</table>
# Don’t Forget the Basics

<table>
<thead>
<tr>
<th>#</th>
<th>Indicator</th>
</tr>
</thead>
</table>
| L.1.1 | edit to correct errors involving frequently confused words and homonyms, including contractions (passed, past; two, too, to; there, their, they're; knew, new; it's its)  
*They don’t know the definitions* |
| L.1.2 | edit to correct errors in straightforward subject-verb agreement  
*Struggle when subject and verb are separated* |
| L.1.9 | edit to ensure effective use of transitional words, conjunctive adverbs, and other words and phrases that support logic and clarity  
*Struggle with transition words (therefore, additionally, in contrast, however)* |
| L.2.3 | edit to ensure correct use of apostrophes with possessive nouns  
*They are drawn to options without apostrophes* |
| L.1.8 | edit to eliminate wordiness or awkward sentence construction  
*They are drawn to wordy options that emphasize and repeat* |
For More Research Highlights, Strategies, and Resources

Stay Tuned for Upcoming T4Ts this Fall!
Last days of school

Events and Updates

Back To School
STATE OF THE GED Event

June 3rd, 12 pm EST

For more details contact Mimi at mimi.abdulkadir@GED.com
Join us on June 3rd at 12PM EDT for a virtual event for all GED administrators and adult educators. We are excited to get together and share the great strides we have made since last year.

Here’s a sneak peek at the agenda:
• Becoming a more learner-centric organization
• DE&I initiatives for the company
• New partnerships and alliances
• New board members

Please send any questions to Mimi Abdulkadir at mimi.abdulkadir@ged.com
Tuesdays for Teachers
June 15, 2021
3:30 p.m.-5:00 p.m. EDT

Featuring:

Aztec Software & GED Testing Service
Collaboration for Improved Student Outcomes
Ongoing Research: Online Proctored (O.P.) Test

- O.P. test taker survey going out this week
- Analyzing O.P. pages – videos, links, content, system test
- Implementing an experiment on the 60-day requirement for GED Ready “Green” for O.P. Test
Moving Toward Post Pilot for the O.P. Test

May-June – gathering and sharing data to gain approvals and finalize plans

Early July – planning to communicate post pilot plans to field

July-Sept – updated websites:
- new, more comprehensive O.P. Testing page for AE
- messaging on all enhancements within student account
As of June 1, VUE will no longer accept expired IDs for online proctored testing or in person testing.

- Stay tuned, discussions will continue on this topic.
Need More? https://ged.com/educators_admins/teaching/professional_development/webinars/
Need More?

https://www.youtube.com/playlist?list=PLJ4lvP90ndyXDxVHLZ4hxacF0wIF-C2mc
Summary:

Content

Events/Updates

Operations
Thank you!

Communicate with GED Testing Service®
help@ged.com