From ABE to GED: How Research and Professional Development Bridge the Skills Gaps to Successful Student Outcomes

A Workshop from GED Testing Service®
Presented by Debi Faucette
In this session, we will:

• Review strategies that can be used to help students improve their:
  • Reading Rate
  • Vocabulary
  • Basic Comprehension
  • Analysis

• Review strategies and activities to help students improve fundamental skills in math

• Share ideas and resources
So... How Can You Help Students Transition from ABE to GED?
### Some Advice

#### Enhance Reading Skills
- Spend time observing students as they read
- Build reading rate
- Build vocabulary
- Teach before, during, and after reading skills

#### Enhance Math Skills
- Learn how students think and feel about math
- Build consistency in applying basic math skills
- Help students think differently
- Provide plenty of practice
Build a More Confident Learner

Model (WHY) + Skills and Strategies (HOW) + PRACTICE = CONFIDENCE + SKILL

INSTRUCTION
Before Diving In...

A short reminder about the importance of *reading skills*…

Reading…

• Is fundamental
• Is essential for developing or enhancing higher order thinking skills (e.g. critical thinking, problem solving, and reasoning)
• Is at the heart of all content—without reading skills, content cannot be accessed or learned
• Provides the necessary framework that enables learning
Advice

Spend Time Observing
Check to See if Students are…

- Rereading the text repeatedly
- Reading less text than their peers
- Using their fingers to point at words as they read
- Sub-vocalize words as they read
- Unable to answer basic questions about what they read
Advice

Increase Reading Rate
Reading Rate and Fluency

Students who struggle with reading fluency comprehend less text and are unable to retain the information they have read. Reading rate is an essential component of reading fluency.

What is the difference?

*Reading fluency* – the speed and ease with which one reads connected text aloud with accuracy, speed, and appropriate phrasing

*Reading rate* – how quickly you read silently with understanding
Do You Know Your Reading Rate?

Reading Rate Sample

There are many theories of reading. Some regard reading as a skill which relies heavily on our visual perception and ability to recognize words, letter shapes, sound patterns and so on. Other theories regard reading much like looking at a picture, where we read to get the whole message and the bits and pieces, like the separate brush strokes of a picture, are not singularly important.

Reading instruction often focuses on items of knowledge - words, letters, sounds. Most people respond to this type of teaching. They search for links between the items and they relate new discoveries to old knowledge. They search for relationships and link old knowledge with new. So, there are many things which go on inside a reader’s head when reading occurs.

People who fail to progress in reading do not approach print in this way. The skills which they have tried to carry out have not brought order to the complexity of the text and they have often become passive in their confusion. This confusion involves losing track of what they read, which usually results in three things - regression, vocalization and faulty fixations.

Regression occurs to most readers. Have you ever had the experience of thinking you were reading and suddenly realized you haven’t taken a word in for ages? Usually we go back and re-read what we missed. We spend as much as a third of our time going back. The second problem most readers have involved saying the words, they are reading, either in their minds - where a little internal voice says the words, or under their breath. Some very slow readers read out loud. A common solution for this is to place a pen or pencil in between the teeth so, talking becomes rather difficult, or chewing on gum often works. The third problem some readers experience involves fixating on every word. The brain only processes the images from the eye when the eye is actually stopped for that split second when it fixates on a word. This means that your brain processes these images by relating them other information to make meaning. The more words you take in when your eyes stop the more information your brain can process. Where you limit your brain to processing one word at a time, you obviously work harder than is necessary. Reading dynamically, in word groups, or dimensionally down the page using a pacer, you have fewer and fewer fixations. This has the potential to increase your comprehension and reading rate at the same time.

You simply take in more!

Reading is like any other skill we learn. For example, when we first learn to walk, we tend to move quickly, but with not much stability. The more confident and stronger we become, the slower and steadier we are until we learn how to control our speed. So, when we decide to run, we can usually control the pace, so we avoid falling over. Sometimes we can increase the speed at which we run, other times we purposely reduce the speed, when we realize that if we don’t, we could come to harm. When we learn to speed read, we use the same technique. When we read the newspaper, we might fly through at 1000 words per minute. A magazine or journal article might require us to read at about 800 words per minute while a highly technical report and drawings may require that we read at about 500 words per minute. Speed reading then is a tool. It is your choice how you use it.

This passage on reading is from “Speed Reading: How to read faster and more effectively” a booklet produced by Student Services at the Sunshine Coast University College, Queensland, Australia.
Reading Rate Problems

Accurate word pronunciation but slow reading results in:

• Reading less text than peers and having less time to remember, review, or comprehend the text

• Expending more cognitive energy trying to identify individual words

• Increasing inability to retain text in memory

• Failing to integrate various parts of the text
## Doesn’t Reading Rate Depend on the Text?

<table>
<thead>
<tr>
<th>Type of Materials</th>
<th>Purpose for Reading</th>
<th>Desired Level of Comprehension</th>
<th>Appropriate Rate of Reading</th>
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</thead>
<tbody>
<tr>
<td>Poetry, legal document, argumentative writing</td>
<td>Analyze, criticize, evaluate</td>
<td>100%</td>
<td>Under 200 wpm</td>
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<tr>
<td>Textbooks, research documents</td>
<td>High comprehension recall for exams, writing research reports, following directions</td>
<td>80%</td>
<td>200-300 wpm</td>
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<tr>
<td>Novels, paperbacks, newspapers, magazines</td>
<td>Entertainment, enjoyment, general information</td>
<td>60-80%</td>
<td>300-500 wpm</td>
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<tr>
<td>Reference materials, catalogs, magazines, non-fiction</td>
<td>Overview of material, locating specific facts, reviewing of previously read material</td>
<td>Below 60%</td>
<td>&gt;500 wpm</td>
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</tbody>
</table>

Open Sources for English Language Teaching Portal
Building Reading Rate - WARF

**Widen your eye span**

If you read word by word, chances are you will read slower than if you were to read larger sections of text at a time.

**Avoid Skip Backs**

When people read, they frequently look back to make sure that they understood what they read. Don't do this. Just read along, and the comprehension will come to you.

**Read silently**

sh! Studies show that the majority of people can read two to three times faster silently as opposed to reading orally. Quiet

**Flex your rate**

When you are driving, you have to slow down at the curves. The same is true of reading. When there are topics that are difficult to understand, you should slow your rate of reading.
Timed Reading Resources

Jamestown Education

- Print only
- GLE 4-13
- 7 books in series

Marshall Adult Education

*New* 25 new Health and Wellness Stories have been posted

These new health and wellness stories were funded by the National Head Start Family Literacy Center/Sonoma State University

**READ THE STORIES**

Read the stories on-line

Reading Skills are divided into 2 groups. Click on the group you want to read.

<table>
<thead>
<tr>
<th>Group 1 - Levels 0.7 to 4.5</th>
<th>Group 2 - Levels 5.0 to 8.0</th>
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**PRINT THE STORIES**

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</table>
Advice

Build Vocabulary
Building Vocabulary

Vocabulary falls into four categories:

1. **Listening**: the words we understand when we hear them.
2. **Speaking**: the words we use when talking.
3. **Reading**: the words we understand when we read.
4. **Writing**: the words we use when writing.
Word Meaning - Vocabulary

How many words does a typical native speaker know?

a. 5,000  
b. 10,000  
c. 20,000  
d. 40,000
Tiered Vocabulary

**Tier 3**
Domain-specific academic vocabulary

**Tier 2**
High-utility academic vocabulary found in many content texts, cross-curricular terms

**Tier 1**
Everyday words, familiar to most students primarily learned through conversation
Academic Word List

An Introduction to the
Academic Word List
Arend Cookhead, Massey University, New Zealand

What is the Academic Word List?
The Academic Word List (AWL) is a list of 570
word families that are commonly found in
academic texts. This list was selected by
examining a large corpus (or collection) of
written academic texts and selecting the
words that occurred:
1. In texts from all ten academic
curriculum sections: Arts, Commerce, Law and Science.
2. Over 100 times in the corpus overall.
3. At least 10 times in each academic
curriculum section.
4. Outside the 2010 most frequent words
in Michael West’s General Service List (GSL). The GSL includes everyday words
such as I, has, and do.

These principles ensured that only words that
occurred reasonably frequently in a variety of
study areas were selected.

The AWL targets vocabulary that occurs most
often in written academic texts. These words
also occur in newspapers but not as often as they
do in textbooks. The AWL words appear even
less in fiction. If your focus is learning academic
vocabulary, you need to make sure you read
academic textbooks so that you encounter those
words in context.

How is the AWL organized?
The AWL is organized into Word Families.
Word families are made up of the “parent word”
and “family members.” Take for example the word
maximum. Its family members include inflections
of the verb such as maximized, maximizing and maximization as well as the noun maximum. The word family also includes
the British spelling of the noun maximisation, as well
as an Americanization, the US spelling.

If you learn the verb maximise, you will be able
to recognize other family members such as
maximised when you encounter them in your
reading. These words are closely related and the
meaning is likely to be the same or similar. When
you are looking for words in this dictionary, think
about other word family members too.

Finally, there are some academic words that
do not have a word family. These words occur
on their own and do not have any inflections.
Examples include nonetheless, so-called and
behalf.

Why is the AWL important?
The AWL is intended as a reference for students
who are studying or preparing to study at a
tertiary level in English. As a university lecturer,
I was aware of the difficulties that students had
in mastering the vocabulary necessary for written
assignments. The AWL does not include ‘content’
vocabulary for particular subjects which students
obviously need to learn as well. The AWL focuses
instead on the non-subject-specific vocabulary
that students of any discipline will need to master
in order to produce coherently-structured written
assignments.

The AWL covers up to 10% of the vocabulary
covered in written academic texts. This means
that, on average, one word in 10 in an academic
textbook is in the AWL. Look at the following extract from an academic text:

**EUROPEAN ENVIRONMENTAL POLICY**

Environmental issues are truly global. Many of
the problems, like the releasing of CFC’s into the
atmosphere, have global effects and require
global action. Some problems link to the exploitation of
global commons — the resources shared by the
international community such as ocean beds and the
atmosphere. Sometimes small local problems, such as
governmental biases, can become major problems.

**Environmental degradation** is a global concern requiring global policies.

Most common form
of the word family
Sample Word Family - interpret

interpretation interpretations interpretative interpreted
interpreting interprets
misinterpret misinterpretation misinterpretations
reinterpreting reinterprets
reinterpreting reinterpreted
reinterpreting reinterpretations
Advice

Teach Before, During, and After Reading Strategies
Research to Practice

**Before Reading**
- Look at title
- Review headings and subheadings
- Identify structure
- Activate prior knowledge
- Determine Purpose

**During Reading**
- Ask Question
- Make connections based on what they already know
- Use signal words
- Use context to identify unfamiliar words
- Reread and make notes

**After Reading**
- Summarize
- Ask clarifying questions
- Evaluate what has been read
- Discuss with the group
# Three Reads Make a Difference!

<table>
<thead>
<tr>
<th>Reads</th>
<th>Sample Questions</th>
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<tbody>
<tr>
<td><strong>1(^{st}) Read – Get the GIST</strong>&lt;br&gt;Determining the general meaning of the text.</td>
<td>What is the text mainly about?&lt;br&gt;What questions are you asking yourself?&lt;br&gt;What do you notice right away?&lt;br&gt;Circle words that are unfamiliar.</td>
</tr>
<tr>
<td><strong>2(^{nd}) Read- Dig a Little Deeper</strong>&lt;br&gt;Determining the way the author used language and structure to create meaning.</td>
<td>What text structures and text features were used?&lt;br&gt;What is the author’s purpose?&lt;br&gt;How does the author feel about the subject?&lt;br&gt;Why did the author use particular words and phrases?</td>
</tr>
<tr>
<td><strong>3(^{rd}) Read – Put It All Together</strong>&lt;br&gt;Determining the thematic meaning and connect other texts like it.</td>
<td>What inferences can you make?&lt;br&gt;How does the author support key points?&lt;br&gt;How does it relate to other texts you’ve read?</td>
</tr>
</tbody>
</table>
Keeping Children Safe in the Car

Pre-reading

Questions:
1. How long do children need to use a car seat?
2. What percentage of parents do you think have car seats installed incorrectly?

Definitions:
- Restrain – to control or hold down
- Lenient – easy, not strict
- Criteria – the standard or rule

Reading

Did you know that car accidents are the leading cause of death for children? Car seat safety is very important. Well-intentioned parents, who desire to keep their children safe in the car, often make common mistakes that put their children at risk. Parents and caregivers can increase their children’s safety by using proper car seats in accordance with the age recommendations. Also, everyone needs to be sure that car seats are installed correctly.

Minnesota law requires that children under the age of 4 be restrained in a car seat. In addition, it is recommended that children under 80 pounds and under 4’9” use a booster seat.

Minnesota has the most lenient age requirement law regarding car seat use when compared to all of its surrounding states. Many other states require the use of a car seat or booster seat until age 8.

Minnesota law also states that car seats must be the right kind for the size of the child.

Children under age 1 and under 20 pounds must be in a rear facing car seat. Many parents make the mistake of thinking that their child can face forward if they are 1 year old or 20 pounds, but this is incorrect; the child must meet both criteria.

Once the child is forward facing, he or she should be in a car seat with a harness that is belted into the car using the car’s seatbelt (more recently, the “Latch” system can also be used if the car and the car seat both have it).

Children can move to a booster seat when they reach 40 pounds. In a booster seat, the child is belted in with the car’s seatbelt. The booster seat helps to make sure the vehicle’s seatbelt fits the child correctly. The booster seat should be used in the back seats of vehicles. Children should never be placed in the front seat until the age of 13. Even though airbags save lives, they can cause serious injury and even death to a child.

Proper installation of a car seat helps keep children safe. According to the National Highway Traffic Safety Administration, as many as 80 percent of all car seats are incorrectly installed and used. This is an alarming number. The confusing designs of many car seats are to blame. It is important to read the instruction book carefully to ensure that seats are installed correctly. Most communities offer free car seat installation checks by trained car seat inspectors. Contact your local police department to find out where to have car seats checked in your area.

Car seat safety is a must for the wellbeing of our children. By making sure the proper car seats are used and installed correctly, parents and caregivers can not assure that their children are as safe as possible in their motor vehicles.

Source: www.carseatmadesimple.com

Understanding

1. Until what age should children use a car seat? ________

2. Why is car seat safety so important? ________

3. What criteria must be met before a child may face forward in a car? ________

4. Why should children never be placed in the front seat of a motor vehicle? ________

5. What are some common mistakes people make with car seats? ________

6. If a person has questions about proper car seat installation, what should he/she do? ________

7. Why might car seats be installed incorrectly? ________

Writing

Option A: Summarize the reading in your own words.

Option B: What new information did you learn about car seat safety? How might you use this information?

Level 8.0

http://resources.marshalladulteducation.org/reading_skills_home.htm
Don’t Forget the Signal Words!

<table>
<thead>
<tr>
<th>Continuation</th>
<th>Change of Direction</th>
<th>Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Illustration</td>
<td>Emphasis</td>
</tr>
<tr>
<td>Cause, Condition, Result</td>
<td>Spatial</td>
<td>Compare/ Contrast</td>
</tr>
<tr>
<td>Conclusion</td>
<td>Fuzz</td>
<td>Nonword Emphasis</td>
</tr>
</tbody>
</table>
Effective Readers Have

- Personal experiences and background knowledge they use to help them understand the text
- Pre-reading strategies that they use every time they read
- During reading strategies that help them build understanding as they read
- After reading strategies that help them pull all of the pieces together and construct meaning.
Advice

Provide opportunities for practice.
Check Your Reading Speed

http://www.freereadingtest.com/
Build Vocabulary

Welcome to Vocabulary.com. The most intelligent way to improve vocabulary.

Vocabulary.com combines the world’s smartest dictionary with an adaptive learning game that will have you mastering new words in no time.

The opposite of dangerous is:

- rich
- stylish
- safe
- murky

Have some words you need to learn?
Whatever you’re learning (or teaching), Vocabulary.com can help.

Quiz coming up?
Enter the words you want to learn and click the “Start Learning” button. We’ll work with you until you know them cold.

Teaching a book or article in class?
Paste up to 100 pages of text into the box and we’ll create a learning activity you can assign to your students. It’s like magic.

https://www.vocabulary.com/
Need Resources for Source Texts?

Science & Math
Endangered Species: The snow leopard
By Gale, Cengage Learning, adapted by Newsela staff
05/03/2018
Ted Level 6
Word Count 610

Image 1. A snow leopard pictured in a protected area in Kyrgyzstan, a country in central Asia. The area is run by the Nature and Biodiversity Conservation Union, a German organization that works to restore snow leopard populations and fight against poaching. Photo from Vyacheslav Oseledko/AFP/Getty Images.

The snow leopard, or ounce, has a beautiful coat of long, pale gray fur with white underneath. Its coat is patterned with solid black spots on its head and legs and dark gray rosettes on the rest of its body. Although it is called a leopard, it is most closely related to the tiger.

Sports industry gears up for virtual reality revolution
By James Pheby, Agence France-Presse
10/17/2018
Text Level 12
Word Count 605


From training with Major League Baseball pitchers to bone-jangling racing on board an F1 car, technology’s potential to revolutionize sport was the hot topic as industry leaders met in London, England, in early October.
Awesome Stories

Language Arts

*The Tell Tale Heart by Edgar Allan Poe*
Edgar Allan Poe's tale of The Tell-Tale Heart remains popular. This is an abridged...[Read more](https://www.awesomestories.com/)

Social Studies

*Assassination of John F. Kennedy*
It's the 22nd of November, 1963, and JFK receives a warm Dallas welcome. Then...[Read more](https://www.awesomestories.com/)

STEM

*Why the Gulf of Mexico Has So Much Oil*
The Gulf of Mexico was once larger than it is today. Algae, growing along its...[Read more](https://www.awesomestories.com/)

Arts

*POPPIES GROW in FLANDERS FIELDS*
Why do poppies grow in Flanders Fields? What made the red field poppies spring-up...[Read more](https://www.awesomestories.com/)

Film & Books

*Anna Coleman Ladd and Her Life-Restoring Masks*
For soldiers whose faces were mutilated in WWI, Anna Coleman Ladd was an angel...[Read more](https://www.awesomestories.com/)

Current Events

*Thanksgiving Becomes a National Holiday*
Abraham Lincoln originated America's annual Thanksgiving Day when he issued...[Read more](https://www.awesomestories.com/)
Foundational Skills: Building Number Sense

Build Students Confidence
Advice

Learn How Students Feel and Think about Math
Math Journals Help Students

- Be aware of what they do and do not know
- Make use of prior knowledge
- Identify their mathematical questions
- Develop their ability to problem solve
- Monitor their own progress
- Make connections
- Communicate more precisely
- Express their feelings about math
- Let you know what they are doing and why
Three Types of Prompts

• **Affective/attitudinal** prompts, which focus on how students feel
• **Mathematical content** prompts, which focus on what the material is about.
• **Process** prompts, which require students to explain what they are thinking and doing

- One secret I have about math is...
- If I become better at math, I can...
- My best experience with math was when...
- My worst experience with math was when...

- What patterns did you find in...?
- How do you use ... in everyday life?
- Explain in your own words what ... means.
- One thing I have to remember with this kind of problem is...

- What would happen if you missed a step in the problem? Why?
- What decisions did you have to make to solve this type of problem?
- When I see a word problem, the first thing I do is...
One secret I have about math is . . .

My best experience with math was when . . .

My worst experience with math was when . . .
What Can You Do?

Incorporate Writing in Math
- Math Autobiography
- Learning Log, journal
  - What you did
  - What you learned
  - What you are not sure about
  - Explain the steps, new words
- Freewriting
- Explain mathematical ideas
- Explain the details

Set the Stage for Positive Writing
- Make early activities easy
- Explain why students are writing
- Facilitate by guiding students as they learn how to think through and communicate their thoughts
  - Model the process
  - Allow ample time
  - Provide feedback
The fraction $\frac{4}{8}$ can be reduced on the multiplication table as $\frac{1}{2}$.
### Squares & Square Roots

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The table shows the squares and square roots of numbers from 1 to 12.
## C-R-A – Essential for Understanding

<table>
<thead>
<tr>
<th>Concrete</th>
<th>Representational</th>
<th>Abstract</th>
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</thead>
<tbody>
<tr>
<td>Students manipulate hands-on, concrete materials</td>
<td>Students draw and observe diagrams, or watch the teacher touching and moving hands-on materials</td>
<td>Students use numbers and mathematical symbols</td>
</tr>
</tbody>
</table>

### Concrete
- Students use numbers and mathematical symbols
Students with Number Sense…

• Think and reason flexibly with numbers
• Use numbers to solve problems
• Spot unreasonable answers
• Understand how to put numbers together and take them apart
• Understand number relationships
Fractions

Students need to learn to locate a fraction on a number line.

Use the number line so students understand that fractions are numbers and not just part of a pizza.
A linear model gives an overview and shows relationships.
Fraction Tiles

<table>
<thead>
<tr>
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<th>1</th>
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<tbody>
<tr>
<td>1/2</td>
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<td>1/3</td>
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<td>1/10</td>
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<td>1/10</td>
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</tbody>
</table>

What is more, 1/4 or 1/3? What is more, 1/9 or 1/10?
Can Students Use a Number Line?

The fractions $3/4$ and $2/3$ are pictured with number lines below:

Correct. The first fraction is greater than the second fraction.
Absolute Value

Absolute Value means how far a number is from 0.

- Remove any negative sign and think of all numbers as positive
- Recognize symbol used to represent absolute value

\[ |{-5}| = 5 \]
\[ |7| = 7 \]

"6" is 6 away from zero, and "−6" is also 6 away from zero.

So the absolute value of 6 is 6, and the absolute value of −6 is also 6.
Inequalities

An inequality is a math statement that defines a range of values.

Jeffrey runs at least two miles every day.

On November 28, the temperature in North Pole, Alaska is expected to be greater than $-4^\circ$ and less than $9^\circ$

$$T < 6$$

Get Rid of Misconceptions about Order of Operations

Misconception 1 - All multiplication should happen before division.

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 + 3 × 4</td>
<td>12 ÷ 3 × 4</td>
</tr>
<tr>
<td>12 + 12</td>
<td>4 × 4</td>
</tr>
<tr>
<td>1</td>
<td>16</td>
</tr>
</tbody>
</table>

Misconception 2 – All addition comes before subtraction.

<table>
<thead>
<tr>
<th>Incorrect</th>
<th>Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 + 10 – 5 + 8</td>
<td>4 + 10 – 5 + 8</td>
</tr>
<tr>
<td>14 – 13</td>
<td>14 – 5 + 8</td>
</tr>
<tr>
<td>1</td>
<td>9 + 8</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

GROUPINGS ( ) { } [ ]
EXPONENTS N²
MULTIPLY/DIVIDE ÷/×
(LEFT TO RIGHT)
SUBTRACT/ADD +/-
(LEFT TO RIGHT)
Do your students know the vocabulary?

Ratio – a comparison between two different values
Percent of change – ratio of the amount of change to the original amount
Percent increase – how much original amount increases
Percent decrease – how much original amount decreases

\[
\text{percent change} = \frac{\text{amount of change}}{\text{original amount}}
\]
Do they understand increase vs. decrease?

• If you buy a brand new car for $15,999, drive it off the lot, and get into an accident, the car will be worth $11,499. Does the car's value increase or decrease?

• The temperature at sunrise is 71 degrees Fahrenheit. At noon, the temperature is 84 degrees Fahrenheit. At sunset, it is 69 degrees Fahrenheit. Has the temperature had an increase or decrease from sunrise to sunset?

• A scuba diver jumps off a dive boat into the water and descends 30 feet below sea level. He rises 10 feet to swim above a coral head, then swims back down 8 feet to the top of a submerged wreck. Has his depth shown an increase or decrease from his initial descent?
A Continuing Problem

Students think an exponent is the same as multiplication.

Multiplication = Repeated Addition

\( 6 \times 3 = 18 \)
\( 6 + 6 + 6 = 18 \)

Exponents = Repeated Multiplication

\( 6^3 = 18 \)
\( 6 \times 6 \times 6 = 216 \)
Do your students know the vocabulary?

Exponents

3

Exponent (or power)

Base

Roots

Root index

Radical sign

$\sqrt{27}$

Radicand
Tips for Building Foundational Skills

• Help students build their number sense
• Include opportunities for students to work together
• Provide plenty of practice with real-life situations included
• Set high expectations
Math is Fun

https://www.mathsisfun.com/
Put the Fun in Math Fundamentals
Our Students Need…

A Balanced Mathematics Program

“WHERE” THE MATHEMATICS WORKS

Problem Solving

Computational & Procedural Skills

“HOW” THE MATHEMATICS WORKS

Conceptual Understanding

“WHY” THE MATHEMATICS WORKS

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President: Session S&K 2013

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Fluency

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