## 2020 Progress



## Teach Clearly



Focus on one important skill, strategy, or topic at a time.
Demonstrate "thinking"-think out loud and pace the demonstration.

## Scaffold learning

Clear directions—but ask students to rephrase them so it's very clear.
Student learning supports-
Graphic organizers
Step-to-Step directions
Frequently check and respond to student learning
If students don't "get it"-REVISIT it—use a different example or ask a student who does "get it" to demonstrate.

## Learning Puzzles

Why do people learn more when....

1. They hear the same information in a dual language classroom-they first hear it in English and then in another language they don't know well.
2. They write about what they are hearing.
3. They complete a graphic organizer.
4. They write about what they are reading.
5. They draw pictures of a math problem.
6. They draw picture(s) of what they reading.

## What do you need to think about to teach your students?

Which of these learning characteristics describe your students at some times?
A. Has difficulty following directions
B. Processes information slowly
C. Has a short auditory attention span
D. Is distracted easily and loses focus/concentration often
E. Is slow to switch from one task to another
F. Has trouble putting ideas on paper
G. Has difficulty understanding concepts
H. Has difficulty following multiple verbal requests
I. Is frequently distracted by extraneous noises
J. Is disorganized

## How do you help students learn more?

Which of these kinds of support help all students learn more?

1. Give simple directions with written examples
2. Give directions in clearly stated steps
3. Write assignments and give oral instructions
4. Explain directions and give concrete examples
5. Teach one concept at a time
6. Check for accuracy and on task behaviors
7. Provide motivation and verbal rewards on a daily basis


## Learning Styles

What kinds of learning styles do many of your students have?
$\qquad$ Auditory $\qquad$ Kinesthetic Verbal (text) $\qquad$ Visual

How much of your classroom activities include different ways of communicating?

## What will you increase?

## Motivation

How will you motivate discouraged students?
How will you support students who need more assistance?
How will you encourage students to achieve more?
How will you ...

## The Competent Learner

Learning how to learn is a complex competency.
Students can improve learning if they develop learning habits.
During the first weeks of school, which of these learning habits do students need to increase so they learn more?

O listening

O following directions

O collaborating

O speaking in sentences

O focusing
O responding to questions after they think about the question

O paying attention

O working independently

O checking and improving their work

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## How will you strengthen these habits?

## Multiple Activity Outcomes

The kind of activity students do can have more than one outcome.
What outcomes would these activities have?

O working with a partner

O games

O puzzles

O computer-based skills practice

O drawing

O writing

O physical movement

O graphic organizers

O student leaders

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Recommended Resolution for 2020 Learning: Use graphic organizers to

Demonstrate
Guide
Assess
Improve


## A message about the first day of teaching.

Source: A website dedicated to teachers helping teachers.

## The following plea for help has come from a newly appointed teacher who wishes to remain anonymous.

On the first day of my teaching career, I defined a rational number to my class as a number that can be expressed as a ratio of integers. A student asked me: What exactly are ratios? How do ratios differ fromfractions? I gave some answers that I was not satisfied with. So, I consulted some other teachers and texts. The result was confusion.

I find that opinions and texts vary about the definitions of these terms. Please tell me how ratios, rational numbers and fractions should be defined to make their distinguishing properties meaningful to the high school students.
To convince you why it is confusing, I am giving below a sample of definitions of ratios and fractions from different texts.
'A comparison of two quantities by division is a ratio.'
'A fraction is a comparison of two numbers. Another word for the comparison of two numbers is ratio.'
'A ratio is the comparison of two quantities that have the sameunits.' 'A ratio of two quantities is their quotient. For example, the ratio
of 3 oranges to 5 oranges is $3 / 5$.'
'A ratio is a comparison of two quantities, usually expressed as a fraction. In fact, a fraction is frequently called a 'rational number,' because one meaning of the word rational is 'having to do with ratios'.'
'An indicated quotient of two numbers is often called a ratio.' 'For any two
positive numbers, $a$ and $b$, the ratio of $a$ to $b$ is $a / b$.
This is sometimes written as $a: b . '$
'Any fraction may be considered as a ratio of its numerator to its denominator."'

The website included some recommendations. One teacher suggested a word chart. How could such a graphic organizer help this teacher's students get and stayclear?

| Term | Explanation | Example |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |

## Focus $\Rightarrow$ Support $\sqrt{ } \quad$ Advance!

## Show Inferences

The Native Americans of what today is the Chicago area lived in a changing environment. They built two homes to live in this environment comfortably. They had one home they lived in during winter. They also built summer homes. They used the environment to make their clothes and tools. For example, they made snowshoes from with the sinews from animals. They used wood to make digging sticks, which they used to plant vegetables they grew for food.

| Category | Iiteral <br> (stated in the text) | inferential <br> (based on the text) |
| :--- | :--- | :--- |
| housing | The Native Americans of <br> the Chicago area had <br> summer homes and winter <br> homes. |  |
| transportation | The Native Americans of <br> the Woodlands had <br> snowshoes. |  |
| food | The Native Americans of <br> this area planted foods. |  |

## THINK MORE

Add writing to Graphic Organizers to increase learning.


## Classify

Title:
$\square$
Explain what your chart shows.

TOPIC ALPHABET
I can identify words that are part of a topic.
I can write a sentence that explains the topic.
My Topic:

| LETTER | WOPD | P\|CTURE |
| :--- | :--- | :--- |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

Write a sentence with some of your words.
$\square$

## GLOSSARY:

$\qquad$
Write an explanation of words that are important to tell about the topic.
Then write about the topic using some of the words.

| Word | Draw a Picture | What it means. |
| :--- | :--- | :--- |
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Use some of your words to write about the topic.
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$\qquad$
$\qquad$
$\qquad$
$\qquad$
Focus $\Rightarrow \quad$ Support $\sqrt{ } \quad$ Advance!

You can read a picture literally.

Focus $\Rightarrow \quad$ Support $\sqrt{ } \quad$ Advance!

## CLASSIFY

What is the characteristic they have in common?
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## Compare and Contrast

## Directions:

Label each column.
Then list information about each one-that tells only about that one.
Then note one important way they are alike.


## Write to Explain

Explain what you think the most important differences are and why they are important.
Then tell what you think is important to understand about how they are alike.

## Focus $\Rightarrow$ Support $\sqrt{ }$ <br> Advance!

## MATH GLOSSARY PRE-ASSESSMENT

Check the box in front of the words from this list that you know well.
Then choose five of the words you know well. List them in column 1. In column 2, show what it means or write words that explain it.

| $\square$ ratio | $\square$ acute angle |
| :--- | :--- |
| $\square$ fraction | $\square$ polygon |
| $\square$ numerator | $\square$ parallel |
| $\square$ denominator | $\square$ symmetry |
| $\square$ hundredth | $\square$ formula |
| $\square$ equivalent | $\square$ vertex |
| $\square$ percent | $\square$ hypotenuse |


| Word | What It Means |
| :--- | :--- |
|  |  |
|  |  |
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## How to motivate and exercise skills in math:

Make it REAL and really interesting.
What skills can students use with the data on the next page?

## Focus $\Rightarrow \quad$ Support $\checkmark \quad$ Advance!

## Chicago Area Jobs

The first column lists some of the many kinds of jobs in the Chicago area. Column 2 lists the number of jobs in the Chicago area in each field in 2014.
Column 3 lists the hourly wage. To get information about these jobs and many more, go
http://www.bls.gov/ooh/a-z-index.htm

| KINDS OF JOBS | Number of Chicago Jobs | Hourly Wage |
| :---: | :---: | :---: |
| Aerospace Engineers | 230 | \$45.84 |
| Anesthesiologists | 1,310 | \$94.26 |
| Arbitrators, Mediators, and Conciliators | 200 | \$36.78 |
| Architects | 3,140 | \$35.12 |
| Audio and Video Equipment Technicians | 2,090 | \$19.90 |
| Bookkeeping, Accounting, and Auditing Clerks | 34,270 | \$19.31 |
| Broadcast Technicians | 740 | \$19.83 |
| Camera Operators, Television, Video, and Motion Picture | 660 | \$27.71 |
| Chemists | 1,700 | \$34.97 |
| Child, Family, and School Social Workers | 9,430 | \$26.42 |
| Choreographers | 40 | \$24.20 |
| Clergy | 1,180 | \$20.04 |
| Clinical, Counseling, and School Psychologists | 3,040 | \$31.61 |
| Community Health Workers | 1,870 | \$18.31 |
| Computer Network Support Specialists | 4,290 | \$30.58 |
| Computer Programmers | 16,480 | \$36.41 |
| Computer User Support Specialists | 13,790 | \$25.25 |
| Customer Service Representatives | 74,600 | \$18.06 |
| Dancers | 420 | \$19.31 |
| Dental Hygienists | 4,660 | \$33.99 |
| Dentists, General | 2,550 | \$62.86 |
| Dietitians and Nutritionists | 1,330 | \$24.82 |
| Editors | 3,340 | \$26.31 |
| Electrical and Electronics Drafters | 420 | \$28.44 |
| Electrical Engineers | 3,220 | \$43.03 |
| Emergency Medical Technicians and Paramedics | 8,570 | \$28.20 |
| Environmental Engineers | 820 | \$38.70 |
| Film and Video Editors | 570 | \$26.89 |
| Food Preparation and Serving | 345,110 | \$10.47-21.47 |
| Forensic Science Technicians | 320 | \$38.85 |
| Guidance, School, and Vocational Counselors | 5,930 | \$31.51 |
| Health Educators | 1,190 | \$25.63 |
| Healthcare Social Workers | 2,760 | \$24.42 |
| Hotel, Motel, and Resort Desk Clerks | 4,080 | \$11.54 |
| Interpreters and Translators | 1,420 | \$16.94 |

## Inspiring Progress

These are some statements that Senator Barack Obama made to a college graduation. Wesleyan University Commencement, Middletown, CT, May 25, 2008

During my first two years of college, perhaps because the values my mother had taught me -hard work, honesty, empathy - had resurfaced after a long hibernation; or perhaps because of the example of wonderful teachers and lasting friends, I began to notice a world beyond myself. I became active in the movement to oppose the apartheid regime of South Africa. I began following the debates in this country about poverty and health care. So that by the time I graduated from college, I was possessed with a crazy idea - that I would work at a grassroots level to bring about change.

I wrote letters to every organization in the country I could think of. And one day, a small group of churches on the South Side of Chicago offered me a job to come work as a community organizer in neighborhoods that had been devastated by steel plant closings. My mother and grandparents wanted me to go to law school. My friends were applying to jobs on Wall Street. Meanwhile, this organization offered me $\$ 12,000$ a year plus $\$ 2,000$ for an old, beat-up car. And I said yes. ...

It wasn't easy, but eventually, we made progress. Day by day, block by block, we brought the community together, and registered new voters, and set up after school programs, and fought for new jobs, and helped people live lives with some measure of dignity. ...

We will face our share of cynics and doubters. But we always have. I can still remember a conversation I had with a man all those years ago just before I left for Chicago. He said, "Barack, I'll give you a bit of advice. Forget this community organizing business and do something that's gonna make you some money. You can't change the world, and people won't appreciate you trying. But you've got a nice voice, so you should think about going into television broadcasting. I'm telling you, you've got a future."

Now, he may have been right about the TV thing, but he was wrong about everything else. For that old man has not seen what I have seen. He has not seen the faces of ordinary people the first time they clear a vacant lot or build a new playground or force an unresponsive leader to provide services to their community. He has not seen the face of a child brighten because of an inspiring teacher or mentor. He has not seen scores of young people educate their parents on issues like Darfur, or mobilize the conscience of a nation around the challenge of climate change. He has not seen lines of men and women that wrap around schools and churches, that stretch block after block just so they could make their voices heard, many for the very first time.

## Change the Future!

What will you do to advance 2020 progress?

What learning habits will you guide students to increase?

What kinds of activities will you organize more of?

How will you use graphic organizers?

How will strengthen student self-esteem?

