



GEAR UP COACH
SPRING TRAINING

STRATEGIES FOR EFFECTIVE TUTORING

February 8, 2020

STRATEGIES FOR EFFECTIVE TUTORING

KEY TOPICS

- What are some best practices of good tutors?
- What can I expect as a tutor?
- What are the typical content areas GEAR UP students need support in?
- What resources are available for me to grow as a tutor?



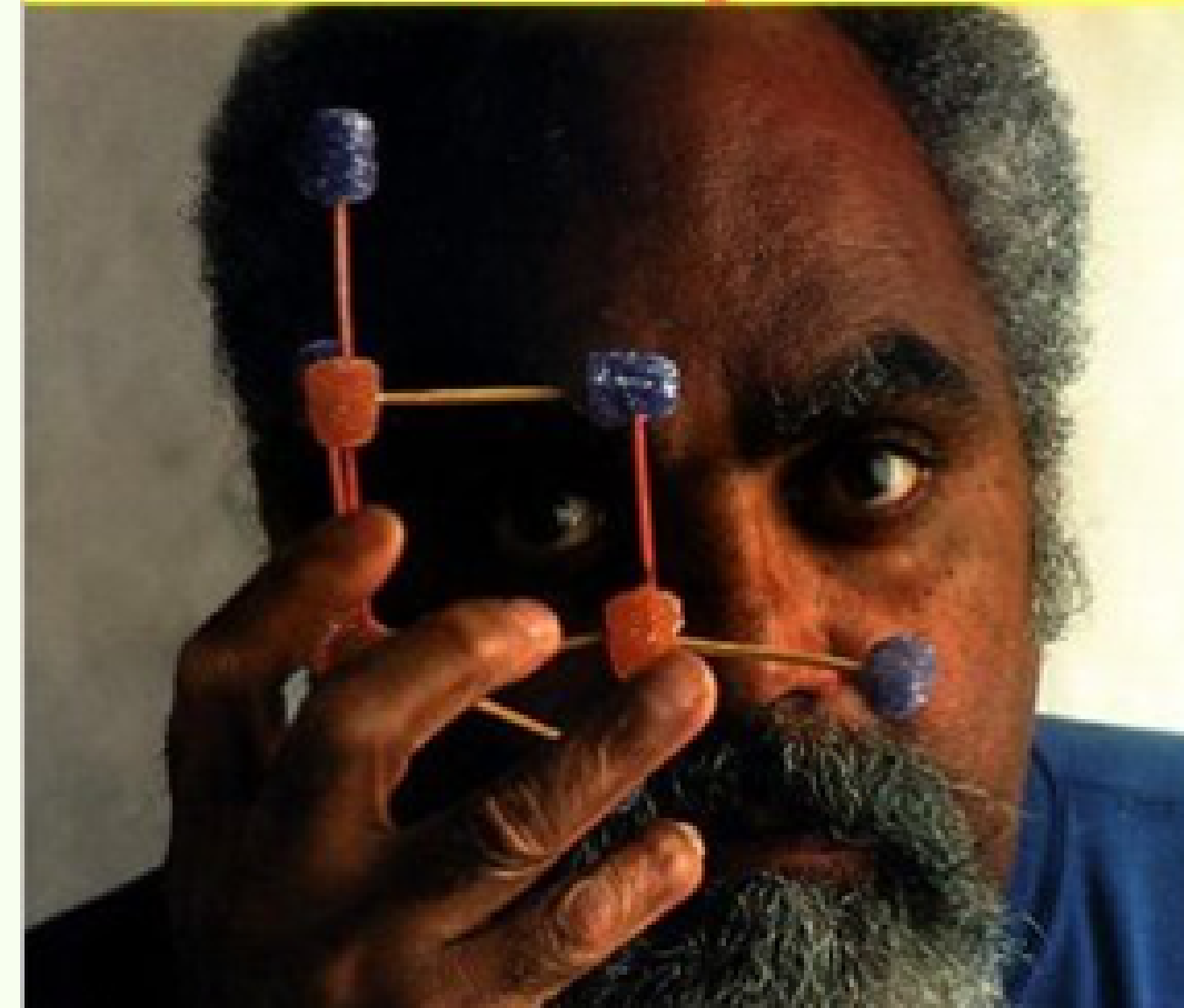
THE GLOBAL KNOWLEDGE AND ECONOMY...

“This rapid transformation elevated the educational requirements for people to access economic opportunities to fully participate in their citizenship; it also prompted the country to introduce legislation that encouraged standards of “universally available schooling.” As a result, algebra has become a gatekeeper of higher learning, career, and economic opportunities.”

ROBERT P. MOSES

“Robert Moses is the towering activist/intellectual of his generation—a grassroots freedom fighter of quiet dignity and incredible determination.” —Cornel West

radical equation.



Civil Rights from Mississippi

to the Algebra Project

Robert P. Moses

and Charles E. Cobb, Jr.

GOALS OF GOOD TUTORING

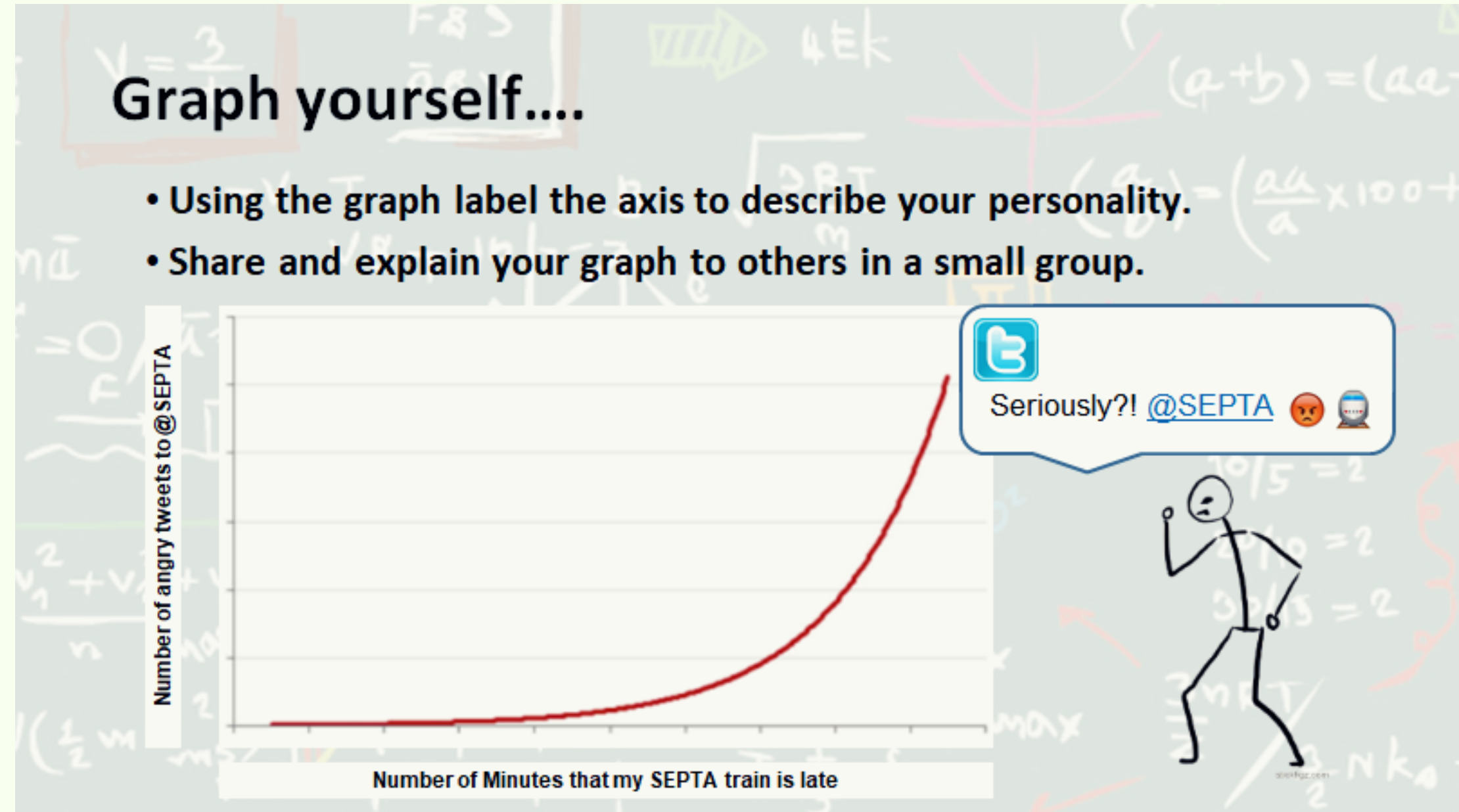
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1. Helping the students gain knowledge and skills in the subject area. The focus is on immediate learning needs and on building a foundation for future learning.
 2. Helping the students to gain in maturity in the content area. This includes learning how to learn, and learning to become a more responsible student (bring necessary paper, pencil, book, etc. to class; pay attention in class; do and turn required assignments).
 3. Helping students learn to effectively deal with the various stresses inherent to being a student in our educational system.



TUTORING BEST PRACTICE

BUILDING RAPPORT AND CONNECTION WITH STUDENTS

- Successful tutors build relationships with the students:
 - Truly personalize the learning
 - Incorporate connections to the student's interests
 - Teach to the student's strengths
 - Minimize the student's weaknesses
- Don't forget to introduce yourself!



TWO-WAY COMMUNICATION



NOT A LECTURE SESSION

Tutoring is not transactional delivery of information.

ENGAGE IN A CONVERSATION

Think through problems out loud.

ACTIVE LISTENING

Provide feedback based on what the student says and does.

FACILITATE A LEARNING AND A LIFE-LONG SKILL

Students learn to express what they know, what they don't know, and what they want to know.

Tutoring Strategy: A three part approach



CREATE AN OUTLINE

Go through the problem yourself first and create an outline of the steps you took.

TALK THROUGH IT OUT LOUD

Talk through the steps of your outline together with the student.

COACH THE STUDENT

The student then tries another problem as the tutor coaches them using the outline.

CREATING AN OUTLINE:

EXAMPLE:

QUESTION: FIND "x"

$$3x + 3 = x + 5$$

OUTLINE:

Step 1: Use addition or subtraction to bring all of the "x" terms to the left side

$$\begin{array}{r} 3x + 3 = x + 5 \\ -x \quad \quad -x \\ \hline \end{array}$$

$$3x - x + 3 = 5$$

$$2x + 3 = 5$$

Step 2: Use addition or subtraction to get all of the "now-x" terms on the right side

$$\begin{array}{r} 2x + 3 = 5 \\ -3 \quad -3 \\ \hline \end{array}$$

$$2x = 2$$

Step 3: Use division to get "x" by itself

$$\frac{2x}{2} = \frac{2}{2}$$

$$\boxed{x = 1}$$

CONTEXTUALIZE

CONNECT TO WHAT'S
LOCAL AND CULTURALLY
RELEVANT

LEARN ABOUT YOUR STUDENTS

What do they find exciting and what concerns them?

REPLACE CONTEXTS WITH LOCAL DATA

Look at graphs and tables and consider types of local data that would have similar properties.

USE CURRENT EVENTS AND LOCAL OR NATIONAL NEWS

Can you connect to issues that have local relevance, such as proposed laws, community development, or local elections?

YOUR TURN!

HOW MIGHT YOU CONTEXTUALIZE A MATH PROBLEM GIVE THESE CONCEPTS?



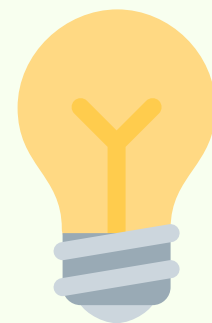
CALCULATING VOLUME

POSITIVE AND NEGATIVE NUMBERS

GRAPHING DATA

PERCENTAGES

GEOMETRY AND ANGLES



[For more ideas visit the Community Based Mathematics Project at Penn GSE](#)

Understand Your Capacity

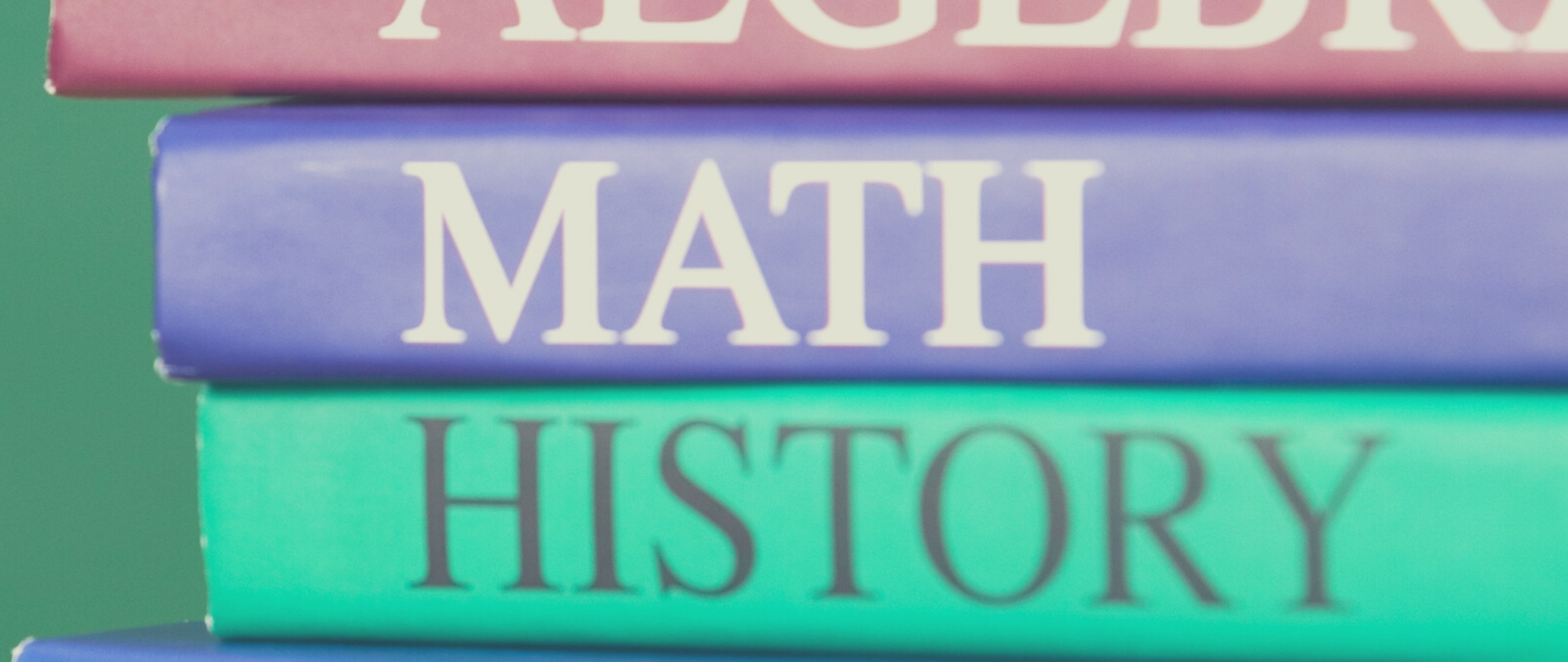
PRIORITIZE YOUR FOCUS

Focus on the high school concepts and immediate learning needs of the students. Remember students will generally have access to calculators to help with general arithmetic.

IT'S OK IF YOU DON'T KNOW

Use this as an opportunity to work with the students on how to use resources and look up information. Don't be afraid to ask for help and communicate any needs to a teachers, school or GEAR UP staff.





FAMILIARIZE YOURSELF WITH THE CURRICULUM

- Ask the classroom teacher what topics are they going over this week?
- Look ahead through the student's textbook for what content areas are coming up?
- Use resources such as Khan Academy

PRIORITY CONCEPTS FOR HIGH SCHOOL MATH



SYSTEMS OF EQUATIONS

Isolating variables and substitution

POLYNOMIALS

Quadratics and factoring

GRAPHING

Standard form, slope-intercept and point slope.

Visit <http://tinyurl.com/GEARUP2020springtraining> for links to more resources.