

If you would like to access previous presentations of: *AT is in the math*

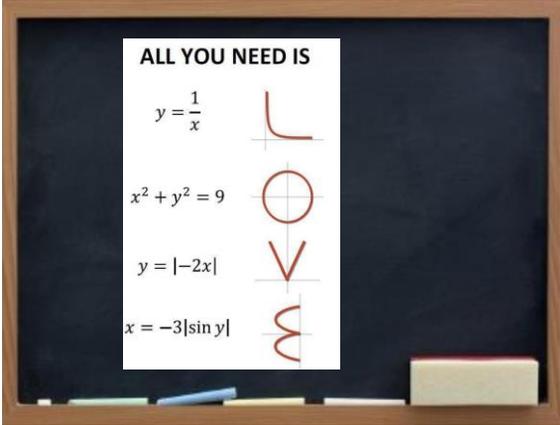


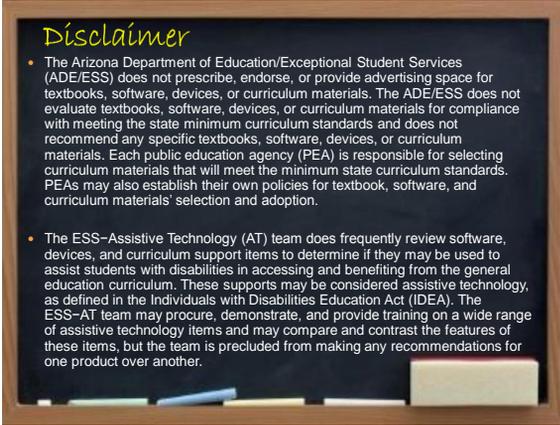
<http://1drv.ms/1NQfm1Q>

Learning Outcomes

- Identify assistive strategies to support students in the math curriculum
- Identify assistive technology tools, devices, and software to support students in the math curriculum
- Support the alignment of assistive strategies and technology to the AZCCRS
- Incorporate universal design for learning (UDL) strategies and tools into the classroom

MATH
Mental Abuse To Humans







Plickers



A free app available for Android and iPad/iPhone Devices

<https://plickers.com/>

Plickers

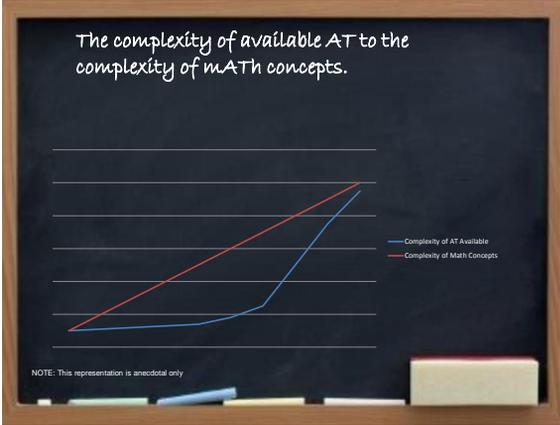
Question: Which MATH concept supports are you most interested in?

- A: Early numeracy and MATH concepts.
- B: Addition, subtraction, multiplication, division.
- C: Higher order MATH concepts.
- D: Accessibility for people with physical and sensory impairments.

The inverse proportion of Math Curriculum Complexity to Available Assistive Technology



NOTE: This representation is anecdotal only



Universal Design for Learning (UDL)

Multiple means of representation: Present information and content in different ways.

Multiple means of expression: Use different ways for students to express what they know.

Multiple means of engagement: Stimulate interest and engagement.

Assistive technology is part of a UDL classroom environment.

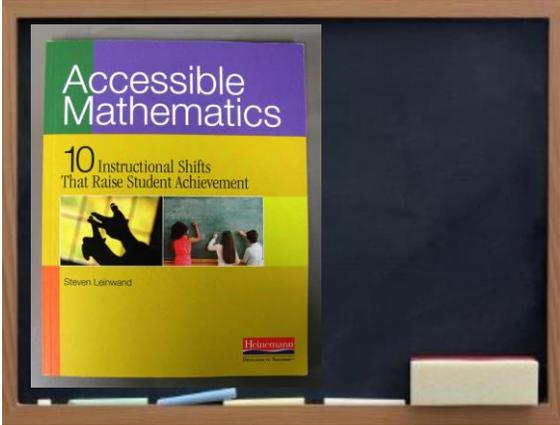
All assistive strategies and assistive technology can be used to enhance learning for all students.

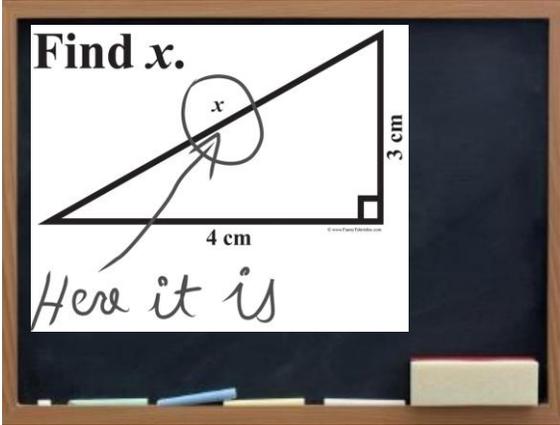
www.cast.org

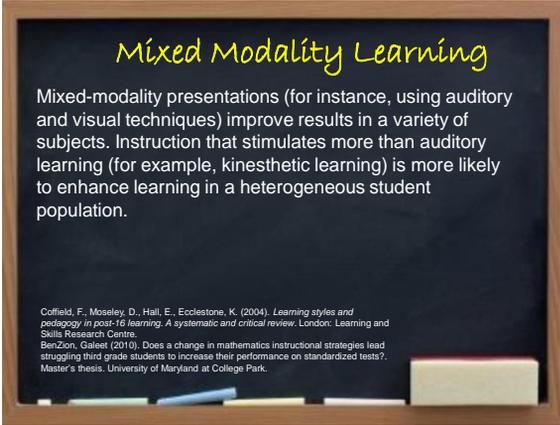
Making Math Meaningful

- No naked numbers:
 - Use real-life problems.
 - How big? How much? How far?
- Everyone does not need to use the same method to arrive at the correct answer.
- Picture it, draw it, show it.
- A new math mantra:
 - Why? How do you know? Can you explain?

Steven Linwand
Accessible Mathematics: 10 Instructional Shifts
That Raise Student Achievement







Why should we explore different ways to teach math?

- 78% of adults cannot explain how to compute the interest paid on a loan.
- 71% cannot calculate miles per gallon on a trip
- 58% cannot calculate a 10% tip for a lunch bill

Phillips, G. 2007

**HOW I SEE MATH WORD PROBLEMS:
"IF YOU HAVE 4 PENCILS AND 7 APPLES,
HOW MANY PANCAKES WILL FIT ON THE ROOF?
PURPLE. BECAUSE ALIENS DON'T WEAR HATS."**



Web links to many resources from this presentation are available here



<http://bit.ly/aztechsymbaloos>



Five horizontal lines for writing notes.



Five horizontal lines for writing notes.



Five horizontal lines for writing notes.





x	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

@stevewyborney