Important Web links: (Live on Monday, May 23)

NASBE website: www.nasbe.org
Link to the full Standard: https://www.nasbe.org/advancing-math-and-science-instruction
(Individual article all compiled/linked from that link) and direct to full PDF: [forthcoming]

Article Links:

- The Impact of COVID-19 on Math Achievement, by Jennifer Sattem, Matt Dawson, and Elizabeth Peyser from Curriculum Associates. https://www.nasbe.org/the-impact-of-covid-19-on-math-achievement
- The Urgent Need for Tailored Math Instruction, by Joel Rose and Michael Watson of New Classrooms. https://www.nasbe.org/the-urgent-need-for-tailored-math-instruction
- High-Dosage Tutoring, by Beth Schueler, University of Virginia https://www.nasbe.org/high-dosage-tutoring
- Advancing Science Instruction, by Bobbi Newman, American Institutes for Research https://www.nasbe.org/advancing-science-instruction
- 10 Lessons Learned from the Science Classroom, Ryan Fuhrman, Wyoming State Board of Education Chair, and an assistant principal. https://www.nasbe.org/10-lessons-learned-from-the-science-classroom
- Mulling Changes to Math Instruction in California, by Jo Boaler and Jennifer Langer Osuna of Stanford University. https://www.nasbe.org/mulling-changes-to-math-instruction
- Achieving Equity and Excellence in Math Teaching, by Yasemin Copur-Gencturk, University of Southern California https://www.nasbe.org/achieving-equity-and-excellence-in-mathematics-teaching
- Interview with Elisha Smith Arrillaga and Dave Kung, managing director and director of policy, respectively, at The Charles A. Dana Center at the University of Texas – Austin. https://www.nasbe.org/the-nasbe-interview-elisha-smith-arrillaga-and-dave-kung

Facebook/Newsletter/LinkedIn:

All students can be good at math and science, yet many students disengage out of boredom or a belief that they cannot excel in either. Moreover, math achievement gaps widened during the pandemic, and experiential learning was hampered. The authors in NASBE's latest *State Education Standard* make clear that advancing math and science education entails doing something different. They argue for building educators' capacity to pinpoint gaps in learning so it is possible for all students to achieve mastery and to help students understand math and science concepts and their relevance in the world around them.

(Search for @StateBoards to link to NASBE on FB.)

Twitter Messages:

Please feel free to make adjustments to fit your own voice/tone. Use #NASBEStandard as the hashtag and tag @NASBE when appropriate. Other handles are noted in tweets when possible.

- .@NASBE is out with a new #NASBEStandard – the "math and science" issue. Find articles written by heavy hitters @CurriculumAssoc @NewClassrooms @NCJoelRose @BethSchueler @AIRInforms @joboaler @copur_gencturk @UTDanaCenter's @dtkung @ESArrillaga and more:

- All students can be good at math and science, yet many disengage out of boredom or a belief that they cannot excel in either. #NASBEStandard authors say advancing math and science education and closing achievement gaps requires a different approach to instruction:

- A state focus on core #mathstandards, high-quality materials, and professional learning will help get students back on track in math in the pandemic's wake, says @CurriculumAssoc Sattem and colleagues in #NASBEStandard [link]

- From #NASBEStandard: Math is a staircase, with one step leading to another, and for many students, stairs are missing after months of disrupted learning, says @CurriculumAssoc Sattem and colleagues. [link]

- Accelerated #math learning is not as much about speed as it is spotting and targeting specific skills a student missed, says @CurriculumAssoc Sattem and colleagues in #NASBEStandard: [link]

- The grade-level focus of #accountability systems is a systemic barrier to improving math achievement, says @NewClassrooms @NCJoelRose and Michael Watson. More in #NASBEStandard: [link]

- States have a key role in changing the incentives for teachers who are focusing solely on grade-level math. @NewClassrooms @NCJoelRose and Michael Watson outline the reasons why in #NASBEStandard: [link]

- Using high-dosage #tutoring to halt slipping #math achievement has a solid evidence base behind it, says @UVA @EdPolicyWorks' @BethSchueler in #NASBEStandard. [link]

- From #NASBEStandard: To realize the benefits of high-dosage #tutoring, good program design is key says @UVA @EdPolicyWorks' @BethSchueler [link]

- State leaders should target high-quality #tutoring programs to populations that the pandemic hit hardest, says @UVA @EdPolicyWorks' @BethSchueler in #NASBEStandard [link]

- Science learning has fallen off the radar, and experiential learning plummeted during the pandemic, yet the country's future depends on more K-12 students gaining mastery. says @AIRInforms Bobbi Newman. #NASBEStandard [link]

- In her article for #NASBEStandard, @AIRInforms Bobbi Newman encourages state boards to ask probing questions about the state of science #teacherprep and alignment of high-quality instructional materials to state #science standards. [link]

- In #NASBEStandard, @WYSBE chair Ryan Fuhrman reflects on #science teaching in the era of #NCLB, plus lessons learned on the state board about standards creation and adoption. More: [link]

- "Without rigorous standards and accountability, some teachers will take opportunities to innovate; . . . some teachers will phone it in," writes @WYSBE chair and teacher Ryan Fuhrman in #NASBEStandard [link]

- What will improve #math achievement? Helping students view math as a vibrant, interconnected, relevant, creative set of ideas says @StanfordEd's @joboaler and Jennifer Langer-Osuna in #NASBEStandard. [link]

- Keeping high-level #math pathways open to more students for longer is key to preparing them for #STEM workforce says @StanfordEd's @joboaler and Jennifer Langer-Osuna in #NASBEStandard. [link]

- From in #NASBEStandard: Businesses and universities are looking for #data-literate students who can wield #statistics. It's time to prep all K-12 students with these skills says @StanfordEd's @joboaler and Jennifer Langer-Osuna [link]

- From #NASBEStandard: Math instruction in the U.S. still focuses more on rules than on making sense of concepts, says @USCRossier's @copur_gencturk

- Teachers need to gain the ability to make meaning out of #math themselves before they can move beyond teaching by rote formulas, says @USCRossier's @copur_gencturk in #NASBEStandard

- Helping teachers address implicit bias can improve students' views of their own abilities, success in math learning, and career choices, says @USCRossier's @copur_gencturk in #NASBEStandard

- Via #NASBEStandard: The way we think about math instruction should change as technology shifts says @UTDanaCenter's @ESArrillaga [link]

- In the #NASBEStandard, @UTDanaCenter's @ESArrillaga identifies a #careerreadiness challenge: Employers are finding there are not enough graduates who have the math training they need for the roles they have open. [link]

- In the #NASBEStandard, @UTDanaCenter's @dtkung urges the #math and business communities to build a steady drumbeat behind the idea that everybody can do math and confront the myth that math requires brilliance. [link]

- .@UTDanaCenter's @dtkung in #NASBEStandard: "We in the math community have managed to teach the subject as if it has no relevance." [link]

- The @WA_SBE wants to boost access to #science learning through integration with other content areas, says executive director Randy Spaulding. He explains their approach in #NASBEStandard: [link]

- In #NASBEStandard: "Every student should get a high-quality #STEM education, just like I did," says Amy Zhang, outgoing MS SBE student board member and graduate of a STEM magnet school. [link]

- "Everyone can be good and math and science; let's make preK-12 students believe it," writes @paolodemaria in #NASBEStandard. [link]