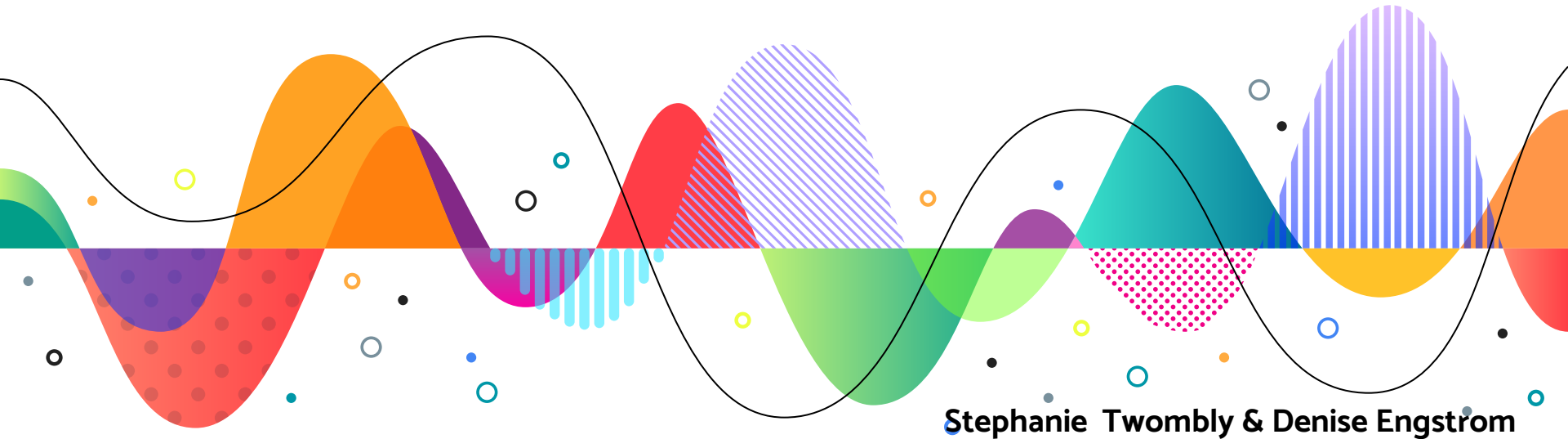
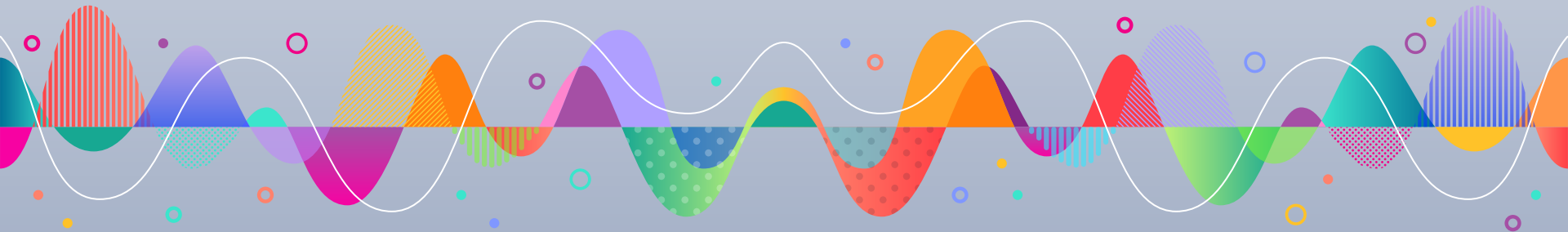
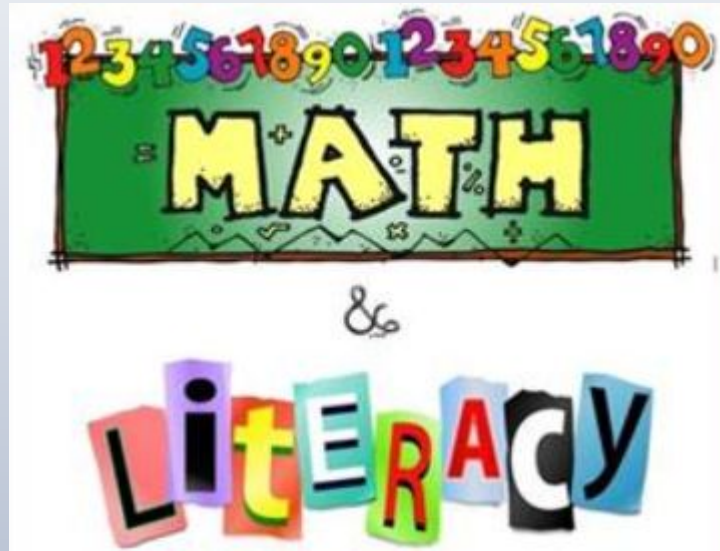


Literacy and Mathematics Intertwined



Stephanie Twombly & Denise Engstrom

Literacy & Mathematics Intertwined



Literacy & Mathematics Intertwined

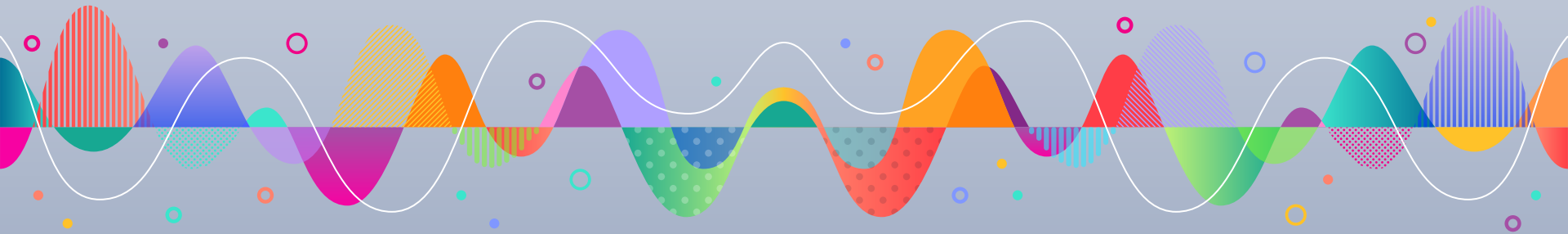
What?

Why?

How?

When?

Who?



Math scores stink in America. Other countries teach it differently - and see higher achievement.

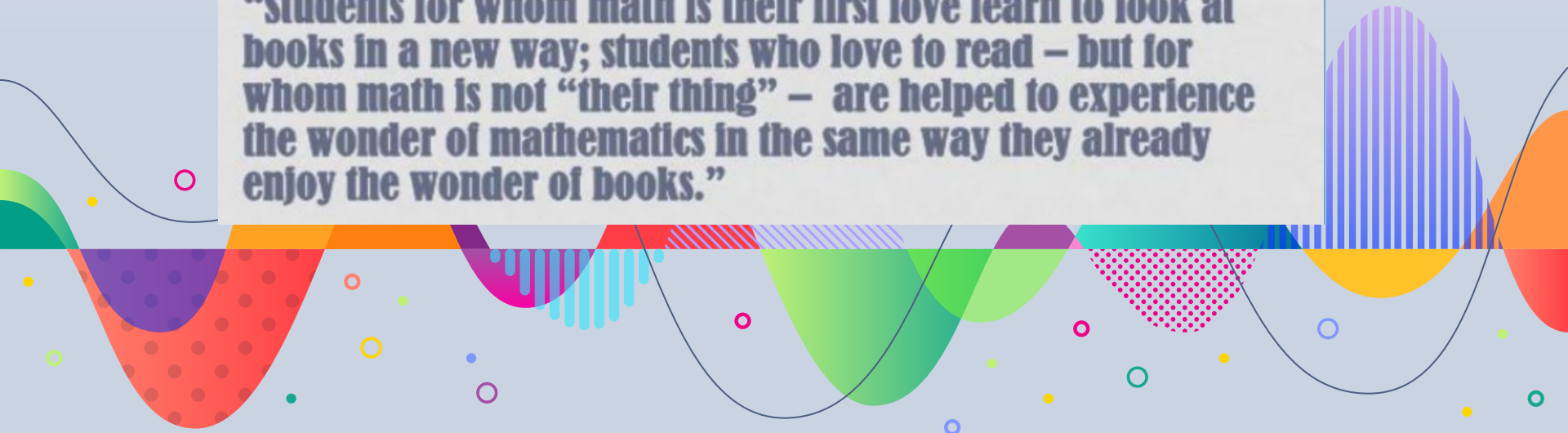
- ...math experts who recommend ways to bring America's math curriculum to the 21st century to make it more reflective of what children in higher-performing countries learn.
- **CHANGE** the way elementary teachers think about math
- "They thought they had to teach procedures and then realized they could teach in this open, visual, creative way," Bowler said.

Integrating literacy and math is surprisingly easy.



Marilyn Burns Marilyn Burns
Education Associates Math Solutions Professional
Development Author of Marilyn Burns Classroom
Math Libraries

“Students for whom math is their first love learn to look at books in a new way; students who love to read – but for whom math is not “their thing” – are helped to experience the wonder of mathematics in the same way they already enjoy the wonder of books.”



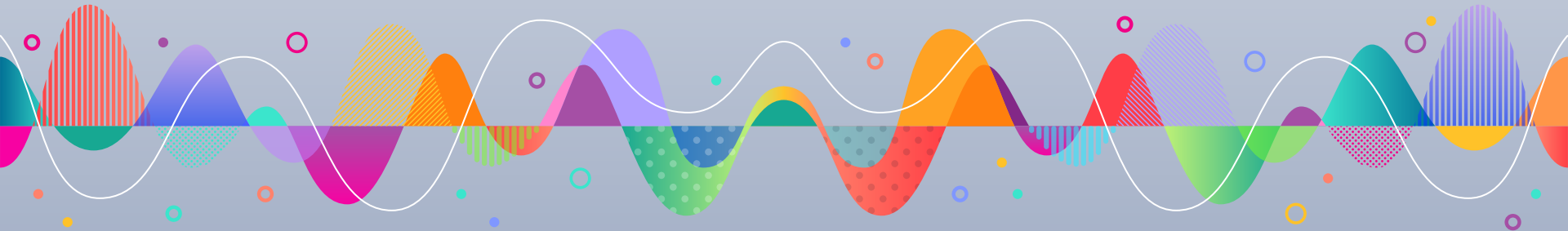
A Game-Changing Practice Fuses Math and Literacy

A program that scaffolds math with reading and writing has a formerly struggling elementary school in the Bronx dramatically outperforming the state in math.

The problem-solving procedure and math tasks that CVES uses were developed by [Exemplars](#), a company that provides a library of rich performance tasks and professional development for K-12 schools.

Literacy & Mathematics Intertwined

- Videos of students in action will be shared.
 - Participant participation and exploration of materials and activities that will help teach mathematics strategically through the lens of literacy.
 - Displays of all resources will be available to explore.
 - Time for questions and group share will be provided!
 - This and much, much more will be part of our session together!
- ~Attendees WILL:
- Walk away with ideas and strategies they can use the very next day!
 - Begin a journey of transformation intertwining literacy & mathematics!



Fr-B19 Literacy and Mathematics Intertwined

- Stephanie M Twombly, Denise Engstrom

Audience: K-5

Math is a journey. Math is much more than the application of rules! In this session you will explore this expedition through the process of intertwining reading and writing into your math lessons.. Together we will unpack the strategies, resources, and practical tips related to performance-based instruction and assessment. In both literacy and mathematics, students need to make inferences, synthesize, and reflect on their thinking in order to build conceptual and procedural knowledge. In this session, participants will examine strategies for developing conceptual understanding and procedural knowledge in mathematics: comprehension strategies, vocabulary instruction, and self-monitoring strategies. Workshop participants will actively engage in and reflect on rich mathematics activities that can be used with students. We have seen this approach evoke curiosity and engagement, as our students grew their confidence immensely while improving their ability to express themselves throughout the problem solving process. Along the way, students began to understand that math is so much more than finding the correct answer. Attendees will walk away with ideas and strategies they can use the very next day and they themselves may begin a journey of transformation intertwining literacy with math! This will enable students to grow as readers, writers, and mathematicians.

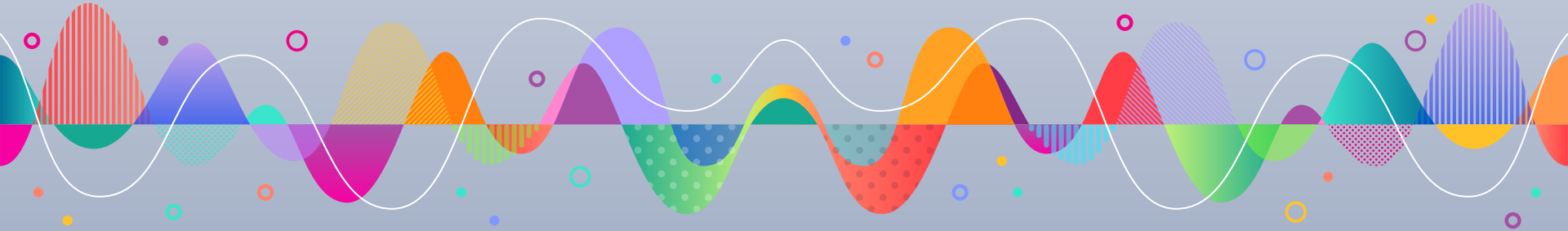


Reflection: Based on what you learned today....

.....what will you start doing?

.....what will you stop doing?

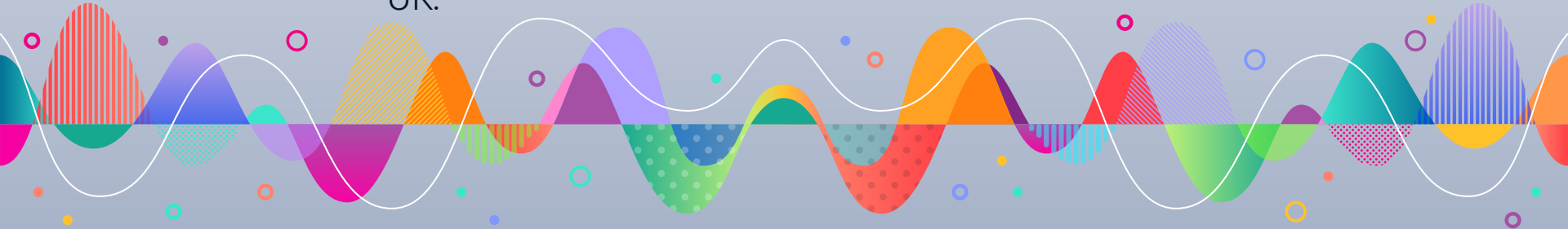
.....what will you do differently?



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References/Resources

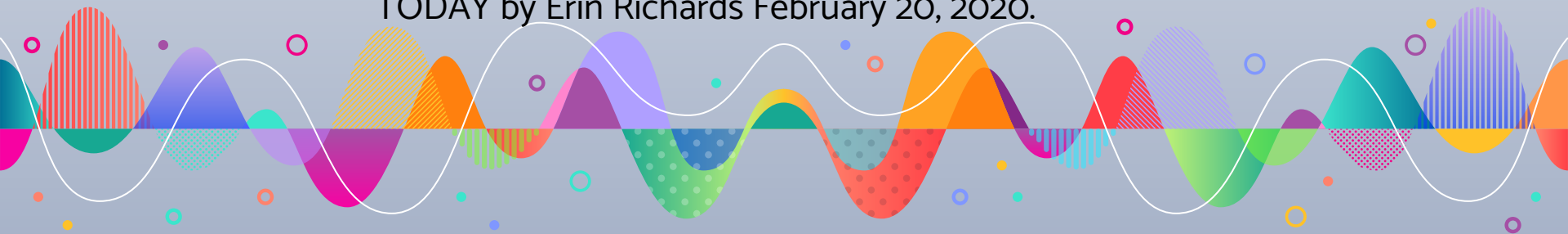
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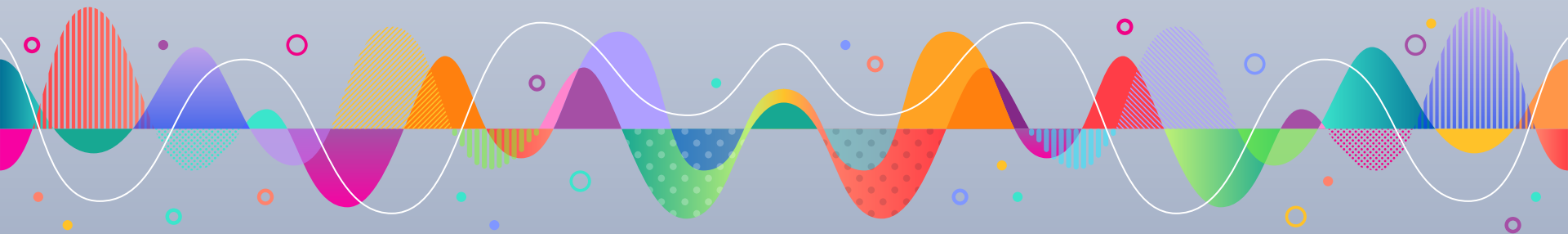
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References/Resources

- Why Literacy Should be Included in an Effective Elementary Math Curriculum, Article in EURASIA Journal of Mathematics, Science and Technology Education by Adrienne Sturgeon April 27, 2017.
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THANKS!



Any questions?
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