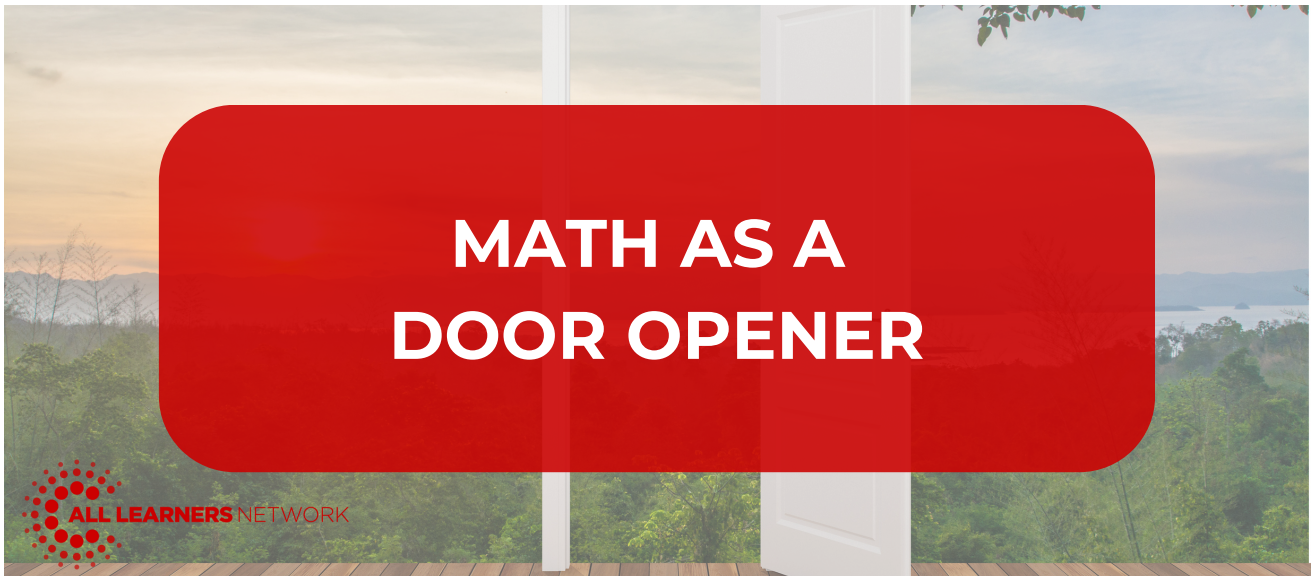

By: Ashley Marlow

All means all. Not “some” or “most,” but every single person deserves to have a humanizing learning math experience that affirms themselves as the capable, competent math thinkers that they are. As educators, we must consider all aspects of a person when planning high-quality learning experiences in order to increase access for all. The current status of our national education system has highlighted the disparities in the traditional delivery of, and access to, quality math instruction that effectively exclude certain students from college and career opportunities.

We now understand that success in algebra opens up numerous pathways for students. Algebra I is a gateway course for higher level mathematics and science, and it is required for graduation in many school districts across the country. Yet many students struggle to successfully complete Algebra I. Pass rates are consistently low in many places, particularly in urban school districts. Students who fail Algebra I are significantly less likely to graduate from high school on time and have an increased potential for dropping out of high school completely. This truth disproportionately impacts Black and Latino students, English Language learners, and students experiencing poverty, as they are less likely to have high-quality teachers and access to the additional resources they need to experience success.

All Learners Network's goal is to support teachers to provide high-quality instruction to all students while creating a learning environment that validates their humanity. For students to reach their full potential as “math people,” they must participate in meaningful, challenging learning opportunities. Math can be the door opener to high school graduation, college matriculation and career opportunities when we minimize barriers that prevent students from seeing themselves as capable problem-solvers with agency as mathematicians.

For math to be a door opener, we must start by incorporating welcoming, inclusive instructional techniques to ensure students feel a sense of belonging in math class. This looks like starting each math class with a Launch/Number Sense Routine that is used daily in the first 5-15 minutes of a balanced math block for purposeful, discussion-rich learning opportunities. The purpose of this time is to encourage all students to engage in the math lesson for the day within the first 5 minutes of the math block. These math tasks could practice, strengthen or introduce new mathematical ideas. The Launch should be engaging and open-ended enough that all students can participate. Through skillful facilitation, Students learn to communicate effectively through regular conversations about the math they do. This is especially important for students who are multilingual or learning English, as well as students with a communication disability.

Another way to make math class a door opener is by prioritizing the High Leverage Concepts (HLCs). The HLCs are the foundation for most/all Tier 2 and Tier 3 intense levels of instruction at a particular grade level. These HLCs are clear markers along the way that support students' understanding of Algebra. The High Leverage Concept Suite, including the HLCs, High Leverage Progressions (HLPs), and High Leverage Assessments (HLAs) allows educators to monitor student progress toward understanding and intervene along the way. The HLCs are especially important when working with students with unfinished learning from previous grade levels.

Finally, a math class that is a door opener for all learners prioritizes inclusion and differentiation, making sure that even students who may be persistently struggling have access to robust grade-level content, as well as support for their just-right needs. An individual student may need additional scaffolding related to the HLCs to engage in an inquiry-based learning opportunity on grade-level content. Students are often excluded from grade-level instruction to focus on misconceptions or missed learning opportunities from previous grade levels, making it nearly impossible for them to engage in challenging problem-solving and sense-making opportunities with their peers.

To accelerate learning and increase access to grade-level content, we use formative assessment to frequently inform our instruction and respond to individual student needs. Through formative assessment, understanding the progression of the HLCs and incorporating welcoming, inclusive instructional routines as part of our pedagogy, math becomes a door opener for students to access all potential opportunities in high school and beyond.

What Now? Scan the QR code and scroll to the bottom of the post for links to next steps

1. Check out our High Leverage Concepts (HLCs), watch our HLC Explainer Videos, and then consider these questions:
    a. How do these resources work together to impact access, growth, and instruction?
    b. How could you use these resources to improve access and growth for all students?
2. Register for one of our upcoming events (many of them are free!).
3. Bring All Learners Network (ALN) into your school or district for embedded professional development.