

AASD 5K-12 Guiding Principles for Universal Instruction in Mathematics

All materials used in math will be directly aligned to our AASD Guiding Principles and support best practices in math education. Materials considered for course adoption must meet the criteria set forth within the AASD 5K-12 Guiding Principles for Instruction in Mathematics.

With respect to Student Learning, we believe all students should...

- ☐ strategically use a variety of mathematical tools.
- ☐ engage in discourse to share mathematical thinking. Multiple solution strategies are to be encouraged and discussed. Students should be able to justify their thinking and reasoning with others.
- ☐ engage and collaborate in meaningful and challenging tasks.
- ☐ have the opportunity to develop both conceptual understanding and procedural fluency.
- ☐ use academic language to communicate mathematical thinking and solutions.
- ☐ receive universal instruction at their current grade level. Additional support should be provided as needed.

With respect to Instructional Practices, we believe in...

- ☐ employing a variety of instructional strategies to challenge and progressively deepen students' mathematical understanding.
- ☐ using formative assessments to make decisions for differentiating instruction to support and challenge each student.
- ☐ the value of multiple solution paths, representations, explanations, and justifications.
- ☐ the value of intentionally creating classroom discourse that allows students to share and justify mathematical thinking and to critique each others' reasoning.
- ☐ engaging students in rich tasks and using purposeful questioning to identify and develop student knowledge and understanding.
- ☐ structuring math lessons that focus on specific learning intentions.
- ☐ using representational models to enhance depth of understanding and to reinforce the connections between mathematics and students' lives.
- ☐ supporting productive struggle in learning mathematics.

With respect to Curriculum and Assessment, we believe in...

- ☐ measuring mathematical proficiency by using a variety of purposeful formative assessments before and during instruction. Summative assessments are to be used after instruction has been completed and should focus on essential learning standards.
- ☐ assessing student learning through a variety of response formats that include writing, discussion, symbolic representations, sketches, models, tables, and graphs.
- ☐ developing differentiated instruction based on multiple assessment opportunities.

We believe Professional Development should...

- ☐ be accessible, purposeful, ongoing, and responsive to the diverse needs of staff members.
- ☐ be embedded within Professional Learning Communities (PLCs) where teachers engage in analyzing student data and sharing teaching strategies to drive instructional decisions.

With respect to Math Resources and Materials, we believe...

- ☐ effective math programs make regular use of a variety of manipulatives and visual supports.
- ☐ students are guaranteed equitable access to Board approved instructional resources.

~~Revised January 8, 2018~~
~~Finalized April 9, 2018~~

Revised April 8, 2022