Illustrative Mathematics

Curriculum and Student Development Committee

Math Curriculum Timeline

2013- 2014 Bridges in Mathematics was implemented in grades K- 2

2014 - 2015 Bridges in Mathematics was implemented in grades 3 -5

2014 - 2016 K - 12 Madison Math Curriculum was written

2016 - 2019 Pulled resources from Internet to implement curriculum

2019 - 2020 Grades 6-8 began experimenting with Illustrative Math

Fall 2019 Coordinator and coach visited Waterford to observe Illustrative lessons

Summer 2020 Three members of Math Team attend professional development for Open Up Resources

2020- 2021 High School begins material review process

March & April & May 2021 ~~Professional development with Math and Special Ed Teachers~~

High School

Illustrative Math		Mathematics Vision Project		CT State Curriculum		Traditional Textbook (general)	
Pros	Cons	Pros	Cons	Pros	Cons	Pros	Cons
Rich in conceptual understanding.	How to share explicit notes/instruction? Forms of linear equations are not introduced formally.	Additonal homework support	Standard (General) Form? Can't find it.	Aligned with our written curriculum.	Becoming outdated.	Students have a physical resource with notes and examples to reference.	
Concepts spiral, with references to previous sections.	Scaffolding makes it difficult to reorganize order at all.	Units are very connected and built off of previous skills	Curriculum is pdf format, which makes it not editable for any instructional changes or rewording	Teachers have lessons, assessments, and supplemental materials, and are comfortable with the resources.	Many errors that haven't been fixed.	May have more examples from which to select.	
Unlike CT curriculum, no long labs	No point-slope form?	Discovery-based approach	Needs a lot of supplementary materials - such as definitions, steps etc.		No access to materials on secured website.	answers to selected problems	
Multiple entry points to solve problems	Ok for Algebra with 135/180 days of instruction. How would this work for Geo or Alg II?	Rich discussion topics	Hard to separate out notes from lessons from practice		At times, problems are TOO scaffolded and/or contrived.	examples real-life applications	
Practice problems use accessible and meaningful real world topics for students to solve.			limited space for students to complete work and write notes			Only one notebook with body of work	
Teacher-created assessment question bank and Assistments for formative assessments and data tracking							
Math Language Routines							
Tied in to Go Formative?			No other CT schools appear to use this program				
This whole resource is a system - you would have to teach it as-is and not substitute or skip. You could supplement, though.							
Very little drill/practice							

Polson Middle School Math Needs

- Continue developing students mathematical thinking begun in K-5 with Bridges in Mathematics
- More conceptual approach to teaching math
- Build on strong content to include more complex problem solving skills using richer problems
- Continue to build teaching repertoire that meets the needs of all students

What is Illustrative Mathematics?

- Race to the top grant
- Problem based math curriculum that addresses content AND practice standards
- Students work on carefully crafted and sequenced math problems during most of the instructional time
- Teachers guide work and discussions to ensure math takeaways are clear to all
- Students spend most of their time in math class **doing** mathematics

Students spend most of their time in math class doing mathematics:

- Making sense of problems
- Estimating
- Trying different approaches
- Selecting and using appropriate tools
- Evaluating the reasonableness of their answers
- Interpreting the significance of their answers
- Noticing patterns and making generalizations
- Explaining their reasoning verbally and in writing
- Listening to the reasoning of others
- Building their understanding

Instructional Routines

- Algebra Talk
- Anticipate, Monitor, Select, Sequence, Connect (5 Practices for Orchestrating Mathematical Discussions)
- Group Presentations
- Notice and Wonder
- Number Talks
- Poll the Class
- Take Turns
- Think Pair Share
- True or False
- Which One Doesn’t Belong?

Next Steps

- **Spring 2021**- Begin professional development with Lindsay Ramos from CREC, a certified Illustrative Mathematics trainer
- **Summer 2020**- Review units and pacing
- **2021-2022 School Year**- Implement Illustrative Mathematics in grade 6, Math 7 and Grade 8 Pre-Algebra
- **2022 - 2023 School Year**- Implement Illustrative Mathematics in Grade 7 Pre-Algebra and Grade 8 Algebra