

Rhode Island's Alignment Process  
A Gap Analysis Tool  
*Putting All the Pieces Together*

**1. District Plan to Improve Student Achievement in Mathematics**

- Our district has someone responsible for overseeing mathematics curriculum across all grade levels
- Our district's strategic plan has long and short term goals for improving mathematics achievement with measurable outcomes
- Our district coordinates all available resources (fiscal, personnel, and professional development) to support mathematics curriculum alignment
- Our district plan is based on a careful evaluation of student achievement and program evaluation data

**2. Programs, Texts, and Resources**

- Programs, texts, and resources are chosen based on their alignment to the GLE/GSE
- Programs, texts, and materials are chosen with clarity around the amount and types of professional development teachers will need to implement the program with fidelity
- Programs, texts, and resources are chosen with input and understanding in partnership with educators representing all grade levels and courses (e.g. career and technical, alternate programming, bilingual etc)
- Programs, texts, and resources are placed within the context of the district's curriculum in mathematics so that everyone understands how the program should be implemented (e.g. pacing, sequence, assessments, pedagogy, etc.)

**3. Teacher Practice**

- Every teacher is prepared to teach each mathematics concept in multiple ways
- Every teacher re-teaches concepts strategies, and skills based on formative assessment information
- Every teacher has planned opportunities to discuss student work to reflect on instructional practice and student progress
- Every new teacher (new to the grade, school or profession) is supported with a mentor
- Every teacher is prepared to teach diverse learners (e.g. English language learners, students with disabilities)
- Every teacher integrates explicit instruction in reading and writing into mathematics

- Every teacher balances individual and group work with specific guidance for students to work well as part of a team
- Every teacher is evaluated on a regular basis each year with a resulting plan for support and goals for improvement

#### **4. Teacher Content Knowledge**

- Every teacher understands the mathematics behind each GLE/GSE in a way that allows them to teach beyond rote memory of skills to provide students with a conceptual understanding of mathematics
- Our district has a policy and protocol to ensure that a teacher is assigned to teach mathematics courses or grade levels only when s/he is well grounded and prepared
- Our district has a policy and protocol to ensure that every teacher is supported so that s/he gains a deeper understanding of specific mathematics topics as needed

#### **5. Professional Development**

- The professional development plan is cohesive, that is, it has long term goals that extend beyond one year, specifies goals and coordinates across schools and grade levels
- Professional development uses multiple funding sources in order to address mathematics holistically so that connections are made across topics (e.g. addressing content, diverse learners, pedagogy, assessment) rather than providing professional development by topic or funding stream
- The district has worked in partnership with the union to address contractual barriers to planning focused and directed professional development that balances meeting individual teacher with school needs in mathematics
- Professional development addresses mathematics content and pedagogy as well as the connections between the two
- There is ongoing and systematic support for teachers to translate professional development into practice in their classrooms
- Mathematics coaches are identified by expertise through an application process and are trained in the coaching process

#### **6. Formative, Interim, and Summative Assessment**

- Every teacher provides ongoing formative assessment in order to determine instructional “next steps” for individual students and the class
- The district has developed grading policies in cooperation with teachers and the school community that articulate how grades are earned and assigned

- The district has designed interim assessments that involve more than on demand paper and pencil methodologies; that is, students are asked to demonstrate and apply what they have learned through application and open-ended items
- Teachers meet on a regular basis within and across grades to calibrate how they evaluate student work including developing rubrics and benchmarks
- Feedback to students includes more than a grade; rather, it provides information about how to improve
- Summative assessments (e.g. comprehensive course assessments) are designed with teachers across schools and programs
- Teachers understand how NECAP and other standardized test results can be used in their classrooms and as program evaluation tools

#### **7. Supports for Students**

- Every classroom's environment places students at the center of all decision making
- Every student is well known so that immediate steps are taken when s/he is falling behind in mathematics
- Every student has the materials (e.g. textbooks, manipulatives, calculators) s/he needs in order to participate in the mathematics curriculum
- Every student's family is informed about student's progress in formal and informal ways (e.g. conferences, notes, progress reports, telephone calls)
- Every student has the support s/he needs to be a successful mathematics student (e.g. ramp up programs, tutoring, extended mathematics classes, credit recovery)

#### **8. Vertical and Horizontal Alignment**

- Every teacher understands the instructional "big ideas" of each grade level and how they build from the preceding grade and toward the next grade level
- Our district has a process to annually review the mathematics curriculum to evaluate its effectiveness using data, teacher reflections, and current research

#### **9. Depth of Knowledge**

- Every teacher has been trained and understands the definitions and uses of *Depth of Knowledge, (DOK)* to design lessons, assignments, and assessments
- Every teacher is comfortable modeling cognitive processing aloud for students as a part of instruction
- All instruction, assignments, and classroom assessments incorporates and balances the intended rigor of every GLE/GSE for each grade level

#### **10. Distribution of Emphasis**

- Each grade level's mathematics curriculum has aligned its emphasis to the distribution of emphasis of that NECAP test
- Every teacher understands the distribution of emphasis and allocates instructional emphasis with this in mind

