Elementary Mathematics: 2013 - 2014

Des Moines Public Schools has adopted the Iowa Common Core State Standards which is a shift in mathematical teaching. There is a sharper focus of concepts in each grade level allowing in-depth learning rather than a mile wide and an inch deep. There is more coherence both across grade levels and across mathematical concepts in the grade level. Lastly, there is an increase in rigor as supported by a balance of conceptual understanding, procedural skills, and fluency and application.

Mathematics Common Core Standards

FOCUS

RIGOR

COHERENCE

Application

Investigations, Expressions, CGI, Problem Solving

CONCEPTUAL Understanding

CGI + Problem Solving

APPLICATIONS

PROCEDURAL Skills + Fluency

Daily Math Review, Fact Fluency, Mental Math, Fasst Math, Fraction Nation

DMPS Teachers will utilize a variety of strategies and classroom structures (whole group, small group, partners, individual) to teach the Iowa Common Core Math Standards. DMPS teachers will use the various forms of assessment as outlined in the DMPS Balanced Assessment Plan to inform their instructional plans.

**Background Information for Planning DMPS Common Core Math Implementation**

|  |  |
| --- | --- |
| Current State of Reality of DMPS Math Program | Desired Outcomes of DMPS Math Program |
| District Benchmarks on Priority Standards only while some of the supporting standards are tested on Iowa Assessment. | Implementation of Common Core State Standards with fidelity   * Focus * Coherence * Rigor |
| Low District Benchmark Scores | Increase of Student Performance on District Benchmark Assessments |
| Low Iowa Assessment Scores | Increase of Student Performance on Iowa Assessment |
| Low ACT Scores | Improvement of Student Performance on ACT |
|  | Increase Teacher Content Knowledge |
|  | Increase Teacher understanding of Mathematical Practice Standards |

Elementary Mathematics: 2013 – 2014

Common Core Implementation Plan

|  |  |
| --- | --- |
| Elementary Math Component | Next Steps to Further Common Core Implementation: |
| DMPS Elementary Math Block | 60 – 90 minutes |
| Instructional Materials | * An audit of our current materials has been completed and has provided insight for greater teacher support in the 2013 curriculum guide revisions. * Investigations provides a supplementary Common Core resource that is available to all schools. * Instructional Materials Review Committee 2013 – 2014 |
| Assessments | * The DMPS Assessment Team is analyzing our current District Benchmark individual items for reliability and validity. Items that are found to be non-reliable or non-valid will be replaced. * External summative assessments, in combination with the Common Core Standards will be considered when replacing the District Benchmark items. |
| Curriculum Guides | * Curriculum Guides will include ‘I Can’ Statements to better facilitate consistency of rigor with the Common Core Standards in DMPS. |
| Balanced Math Framework | * Continuation of implementation of the framework will provide structure to the math block. * Daily Math Review will be implemented with fidelity from grade K – 5 starting in August of 2013. * District PLC Meetings will focus on Problem Solving in relation to the Math Content Standards, as well as, Mathematical Practice Standards. * Support will be provided to Instructional Coaches in the area of CFA creation and analysis. |
| Instructional Strategies + Content Knowledge | * Summer professional development courses will be offered to deepen teacher understanding of The Common Core Content standards, as well as, The Mathematical Practice Standards. * District PLC Meetings will focus on Problem Solving in relation to the Math Content Standards, as well as, Mathematical Practice Standards. * Monthly Instructional Coaches Meetings |

**The Common Core Grade Level Focus Areas**

|  |  |
| --- | --- |
| **Grade Level** | **Focus Area** |
| **K-2** | Addition and Subtraction – concepts, skills and problem solving |
| **3-5** | Multiplication and Division of whole numbers and fractions – concepts, skills, and problem solving |
| **6** | Ratios and Proportional Relationships-- concepts, skills and problem solving  early expressions and equations -- concepts, skills and problem solving |
| **7** | Ratios and Proportional Relationships -- concepts, skills and problem solving  arithmetic of rational numbers -- concepts, skills and problem solving |
| **8** | Linear Algebra -- concepts, skills and problem solving  Linear Functions -- concepts, skills and problem solving |