DMPS Daily Math Review

**Purpose:**

* Clean up misconceptions
* Take care of gaps
* Develop number sense
* Practice procedural math and computational skills

Classroom Implementation Guide

10 – 20 minutes daily

**Example of 10 days’ worth of variations of the same problem in a category:**

**Category: Regrouping**

|  |  |
| --- | --- |
| Oct. 8  50 – 19 = | Oct. 15  81 – 8 = |
| Oct. 9  72 – 29 = | Oct. 16  52 – 33 = |
| Oct. 10  21 – 9 = | Oct. 17  68 – 39 = |
| Oct. 11  70 – 28 = | Oct. 18  31 – 22 = |
| Oct. 12  90 – 29 = | Oct. 19.  46 – 38 = |

Step Two: **SELECTION OF PROBLEMS**

1. Decide on a progression of categories for the year with your team.

2. You will need to write problems for the *three* categories your team has decided to start with. **Remember:**

* One problem per category every day for 10 days.
* DMR focuses on review and practice on variations of the same problem for 10 days.
* At the end of the 10 days, you will give a 12 question quiz (4 problems per category).
* 90% of the class must earn 100% on a category on the quiz to “retire” the category and move on to the next category on your list.
* If less than 90% of your class earns 100% on a category on the quiz, you will do another 10 days of that category. You will repeat the category until you can “retire” it.

Step One: **CATEGORIES**

* Develop a list of **categories** that the students will need to **review** throughout the year with your grade level team and instructional coach.
* **Questions to consider** while developing the categories:
  + What prior concepts and skills do our students need for math this year, yet typically lack?
  + What are the prerequisite standards that are necessary in order to learn our current grade level standards?
  + Are the categories simply review? (They should be)
  + Will the categories provide practice for computation and procedural math?
* **Resources** for developing categories:
  + Resource Guides (current and prior grade level)
  + Iowa Common Core
  + Teachers and Instructional Coach in your building
  + Data in Data Director from last year

Step 3: **WRITE KEY IDEAS**

* Each category will have a key idea that they students will write and practice saying each day.
* While processing a problem as a whole class – you will post a key statement that the students will write down. They will then recite the key idea together as a class.
* Every category will have a key idea.
* Your team will have a chance to draft key ideas at the October 31st Early Out District Math PD.

**Examples of categories:**

Scientific Notation

Regrouping

Multi-digit Multiplication

Multiplying Decimals

Telling Time

Money

Area

**Examples of a Key Ideas: Regrouping** – Numbers can be rearranged to help with subtraction.

**Geometry –** Area is a measure of covering expressed in square units.

Adapted from Five Easy Steps to a Balanced Math Program by Ainsworth and Christensen

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Step 5: **CLASSROOM IMPLENTATION**

1. The process should be teacher directed until the students are familiar with the routine.

2. When the students are familiar with the routine – on average the teacher will direct the Daily Math Review the first 3 days of the 10 days in the 2 week span. It will not always be exactly 3 days – take the cue from your students.

3. Use the Teacher-Directed Script\* to guide the students through the process.

4. When the students are ready to lead the process - use the Student-Directed Script\* to guide the process.

Step Four: **MATH REVIEW TEMPLATE**

1. As a grade level team or school building, decide on a template that will work best for your students.

2. Options in deciding on a math review template:

* Have students write problems in a notebook while providing them with verbal directions and a visual example on how their page should be set up.
* Use the Balanced Math Sample Template\*.
* Create your own template to fit your students’ needs.

Adapted from Five Easy Steps to a Balanced Math Program by Ainsworth and Christensen

Step Six: **MATH REVIEW QUIZ**

1. Write a math review quiz that has 4 problems per category you have been focusing on the past 10 days.

2. For immediate feedback, the students should score their own quizzes with red pens.

3. After correcting their own quiz, instruct them to write a self-reflection on their performance. Next to any incorrect answers, they will write a phrase about why they missed the problem.

\*For scoring the quiz – see Step Two.

Reflection Starters:

* I did a good job on…
* I need to practice…
* I still don’t understand...
* I am confused about…
* I am wondering…
* Today I connected…
* Today I realized…

\*Students will need examples of deep thinking reflections.

**Action 3 - Partners (8 minutes):**

Students collaboratively solve problems while the teacher chooses students to present.

\*Teacher can choose students who need a little extra help for a small group during this time.

**Action 4 – Processing and Error Analysis (7-9 minutes):**

Students affirm correct answers (STARS)

Student finds and identifies errors and asks the class if they agree or disagree. (CIRCLE AND FIX)

Students reflect on learning (KEY IDEAS + REFLECTIONS)

\*STUDENT follows the script

**Action 1 - Page Set-Up (1 minute):**

Students prepare for DMR.

\*Follow the script

STUDENT-DIRECTED

TEACHER-DIRECTED

**Action 4 – Processing and Error Analysis (7-9 minutes):**

Students affirm correct answers (STARS)

Students find and identify errors (CIRCLE AND FIX)

Students reflect on learning (KEY IDEAS + REFLECTIONS)

\*TEACHER follows the script

**Action 3 - Partners (6 minutes):**

Students collaboratively solve problems.

\*Teacher can choose students who need a little extra help for a small group during this time.

**Action 2 - Independent (2 minutes):**

Students begin to solve problems.

**Action 1 - Page Set-Up (1 minute):**

Students prepare for DMR.

\*Follow the script