**Daily Math Review**

Teacher Directed

**Page Set Up**

|  |  |
| --- | --- |
| **Time:** 2 – 5 minutes | **Purpose:** To prepare student’s paper for Daily Math Review. |

**Teacher Actions –**

*Follow this script:*

* Put your name and date in the top right hand corner of your paper.
* Check your partner’s paper.
* Write the title “Math Review” at the top of your paper.
* Make sure you number all your problems, write the problem down and show all your work.
* Tell your partner to do those things.
* Now let’s say it together: number all your problems, write the problems down and show all your work.

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**Independent**

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| **Time:** 2 minutes | **Purpose:** Students begin to solve problems. |

**Teacher Actions –**

* Walking around
* Monitoring student work

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**Partner**

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| **Time:** 6 minutes | **Purpose:** Students collaboratively solve problems. |

**Teacher Actions –**

* Walking around
* Listening to student explanations for the purpose of:
	+ Identifying student misconceptions
	+ Choosing students who need a small group

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**Page Set Up**

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| **Time:** 7 – 9 minutes | **Purpose:** Students affirm correct answers. Students find errors. Students reflect on learning. |

**Teacher Actions –**

*Follow this script + model:*

* If you put your name on your paper, put a star by it.
* If you put the date and title on your paper put a star by it.
* Check your partner to see if they put stars on their paper.
* Check to see if you numbered all your problems, wrote all of the problems and showed all your work.
	+ If you did write “I am awesome at following directions” in the margin.
	+ If you did not, write “I need to work on following directions” in the margin.
	+ Stand up after you wrote those statements.
* Check your partner’s paper to see if they did all those things.
* Star or Circle and Fix
* State the key statement twice.
* Students write the key statement on their paper.
* Students read key statement to their partner.
* Class recites key statement out loud.
* Students write a reflection that directly relates to error analysis.
* Students stand when done writing.
* Share your reflection with your partner.
* Invite a few students to share.
* Repeat for each problem.

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

**Daily Math Review**

Student Directed

**Page Set Up**

|  |  |
| --- | --- |
| **Time:** 2 – 5 minutes | **Purpose:** To prepare student’s paper for Daily Math Review. |

**Teacher Actions –**

*Follow this script:*

* Put your name and date in the top right hand corner of your paper.
* Check your partner’s paper.
* Write the title “Math Review” at the top of your paper.
* Make sure you number all your problems, write the problem down and show all your work.
* Tell your partner to do those things.
* Now let’s say it together: number all your problems, write the problems down and show all your work.

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**Partner**

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| **Time:** 8 minutes | **Purpose:** Students collaboratively solve problems. |

**Teacher Actions –**

* Walking around
* Listening to student explanations for the purpose of:
	+ **Choosing students to present**
	+ Choosing students who need a small group

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**Processing / Error Analysis**

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| --- | --- |
| **Time:** 7 – 9 minutes | **Purpose:** Students affirm correct answers. Students find errors. Students reflect on learning. |

**Teacher Actions –**

* Move to the back of the room.
* Facilitate student led discussion without becoming actively involved in the discussion.

**Student Actions -**

*Follow this script + model:*

* If you put your name on your paper, put a star by it.
* If you put the date and title on your paper put a star by it.
* Check your partner to see if they put stars on their paper.
* Check to see if you numbered all your problems, wrote all of the problems and showed all your work.
	+ If you did write “I am awesome at following directions” in the margin.
	+ If you did not, write “I need to work on following directions” in the margin.
	+ Stand up after you wrote those statements.
* Check your partner’s paper to see if they did all those things.
* Star or Circle and Fix
	+ **Ask the class if they agree or disagree with the answer.**
* State the key statement twice.
* Students write the key statement on their paper.
* Students read key statement to their partner.
* Class recites key statement out loud.
* Students write a reflection that directly relates to error analysis.
* Students stand when done writing.
* Share your reflection with your partner.
* Invite a few students to share.
* Repeat for each problem.

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

**Daily Math Review**

The Math Review Assessment

**Timing**

* About every 10 days (ex. Every other Friday)

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**Number of Problems**

* 4 problems for each category that has been on the Daily Reviews
* Total of 12 problems (if you had 3 categories)

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**Correcting the Assessment**

* Correct the quiz with the students to provide immediate and specific feedback.
* Have students switch papers with a partner.
* Have students star for correct answers and check for incorrect answers.

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**Student Reflection and Plan**

* **Reflection**
	+ Students write a reflection on the back of their assessment based on how they did.
	+ They should focus on what they did well, as well as, what areas they need to improve on.
* **Improvement Plan**
	+ Students write underneath the reflection their plan for improvement on the areas they need to work on.

*\* This will need to be modeled.*

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**Teacher Analysis of the Assessment**

* **80% Proficiency**
	+ Students who score below 80% overall on the assessment may be placed in Flex Groups which allow for a scaffolding of support.
	+ Flex groups get support from the teacher during the individual part of the Daily Math Review process.
	+ Students are only in the Flex Groups for a few days and then go back to their partnerships.
* **Category Determination**
	+ If at least 90% of the students scored 100% on a category then the category will not be in Daily Math Review during the next cycle.
	+ Look at your grade level list for the next category to replace the mastered category on the Daily Math Review.

*\* Example:*

*Mrs. Jones has 20 kids in her class.*

*18 (92%) of the students scored 100% on the Daily Math Assessment in the adding fractions category. Adding fractions will no longer be one of the three categories on the DMR. The next category on the list is simplifying fraction and that will be now be on the Daily Math Review.*

*15 (75%) of the students scored 100% on the Daily Math Assessment in the subtracting fractions category. Subtracting fractions will continue to be a category on the DMR the next two weeks until it is tested again.*

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

**Daily Math Review**

Sample Key Statements

When creating key statements remember:

* Use student-friendly language (not all examples below are student-friendly).
* Use the following books as a resource for creating key statements:
	+ Developing Essential Understanding of Algebraic Thinking
	+ Developing Essential Understanding of Addition and Subtraction
	+ Developing Essential Understanding of Multiplication and Division

 \*All instructional coaches should have copies of these books.

* The statements are *not* “I can” statements.
* The statements are the conceptual reasoning behind the skill.

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| **Example of a Key Statement** | **Non-Example of a Key Statement** |
| Telling Time: Each number on a clock represents groups of 5. | Telling Time:I can tell time on a clock using fives.  |

The following key statements were developed by the authors of Five Easy Steps to a Balanced Math Program: Larry Ainsworth and Jan Christinson.

|  |  |
| --- | --- |
| **Category** | **Key Idea** |
| Expanded Notation | * The value of a digit is determined by its position.
 |
| Scientific Notation | * Powers of 10 move the decimal point.
* Scientific Notation is used for very large or very small numbers.
 |
| Regrouping | * A quantity can be rearranged in different ways and it is still the same quantity.
 |
| Multi – Digit Multiplication | * Partial products can help determine an answer to a multiplication problem.
* The value of a digit is determined by its position.
 |
| Multiplying Decimals | * Multiplying the whole numbers helps place the decimal.
* A reasonable answer helps place the decimal.
 |
| Division | * Division indicates the number of equal pieces in a given quantity.
 |
| Division with Remainder | * A remainder is part of the divisor expressed as a fraction or a decimal.
 |
| Adding Unlike Fractions | * A common denominator shows same size pieces.
 |
| Equivalent Fractions | * A fraction can be represented in various equivalent ways.
 |
| Telling Time | * A clock uses a base of 60.
* Each number on a clock represents a group of 5.
 |
| Money | * Counting money involves skip counting by 1’s, 5’s, 10’s, and 25’s interchangeably.
 |
| Geometry | * Shapes are classified by their attributes.
* Area is the measure of covering expressed in square units.
* Perimeter is the distance around a shape expressed in linear units.
 |
| Area | * The area formula comes from the perpendicular relationship of base and height.
 |
| Algebra | * An equation shows two equivalent quantities.
 |
| Integers | * Adding the opposite helps with subtracting integers.
 |
| Data | * Mean, median and mode tell about the center of data.
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Adapted from Five Easy Steps to a Balanced Math Program by Ainsworth and Christinson