Spiraled Math
Warm Up
A targeted math intervention
Yearly Appraisal and Spiraled Math Warm Up

T-TESS

Planning Dimension 1.1
Standards and Alignment
Planning Dimension 1.4
Activities
Instruction Dimension 2.2
Content Knowledge & Expertise
Instruction Dimension 2.3
Communication
Instruction Dimension 2.4
Differentiation
Learning Environment Dimension 3.3
Classroom Culture
Why do Spiraled Math Warm-Up?

Math Review emphasizes the development of number sense as students practice procedural mathematics and computational skills every day. It also prepares students for success on the annual state math assessments. It is a time for needed PRACTICE!!
Spiraled Math Warm-Up Concepts

- 4 topics per cycle (initially 3 if you prefer); one problem per topic daily
- Focuses on weak computational concepts based on data (usually based on readiness, though can be based on supporting)
- Prior learning of math skills reinforced
- ONLY previously taught concepts (if it was previously taught in the grade before that is okay)
- A cycle is 2 weeks long
- Key statements give students the repeated oral practice of vocabulary concepts
Monday (10/29)
The answer to a subtraction problem is called the difference.

**Multiplication/Division**
A grocery store has a display of 54 bananas in bunches of 6. What is the number of bunches of bananas in the display?

<table>
<thead>
<tr>
<th>Grade</th>
<th>Pepperoni</th>
<th>Cheese</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 1</td>
<td>97</td>
<td>106</td>
</tr>
<tr>
<td>Grade 2</td>
<td>91</td>
<td>67</td>
</tr>
<tr>
<td>Grade 3</td>
<td>58</td>
<td>149</td>
</tr>
</tbody>
</table>

About how many more slices of cheese pizza than pepperoni pizza were sold to students in 3rd grade?

**Subtraction/Addition**
Samantha has 87 soccer cards. Her friend Genevieve has 135 soccer cards. How many more soccer cards does Genevieve have than Samantha?

**Place Value**
The Austin Zoo in Austin, TX had 3,235 visitors in the winter, 8,326 in the spring, 5,096 in the summer, and 6,164 in the fall. In which season did the greatest number of visitors go to the Austin Zoo?
If you need to initially start with 3 topics this is what it can look like and instead of typed it can be hand-written.
I print my math review two to a page and two sided to save paper.

### Printed Math Warm-Up

#### Thursday (8/30)

<table>
<thead>
<tr>
<th>Comparing/Ordering Numbers</th>
<th>Subtraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,574</td>
<td>821 - 87</td>
</tr>
<tr>
<td>1,578</td>
<td></td>
</tr>
</tbody>
</table>

#### Friday (8/31)

<table>
<thead>
<tr>
<th>Comparing/Ordering Numbers</th>
<th>Subtraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>5,974</td>
<td>800 - 87</td>
</tr>
<tr>
<td>5,976</td>
<td></td>
</tr>
<tr>
<td>Total?</td>
<td></td>
</tr>
<tr>
<td>Multiplication:</td>
<td></td>
</tr>
</tbody>
</table>

### Additional Practice

#### Addition

- 467
- 279
- 120
- 199
- 80
- 200
- 279
How to print two to a page

On Print page change the bottom drop down menu from “1 Page Per Sheet” to “2 Pages Per Sheet”
Math Warm-Up Organization

My students collect their math review pages in their Math Review Folder.
Vocabulary Emphasis

• Always emphasize correct mathematical vocabulary

• Label the essential vocabulary every day of the cycle

• Don’t label everything!

• As a teacher you decide what is essential
Looking at Errors

While you are checking Math Review, have students share their wrong answers. This may help others who did something similar but are afraid to share.

- Where was the mistake made and why?
- Help students to understand their misconceptions without penalty or punishment
- By starring every step in processing, students can identify specific errors
- Students are to correct errors with a pen while we are checking whole class.
Looking at Errors

This is what a checked math warm-up looks like.

Stars for correct answers

Students writing the correct answers to correct mistakes
Key Statements

- Go at the top of your math warm up.
- Emphasize concepts or vocabulary that the students struggle with.
- Can be teacher made or picked off of the key statement list.
- Should be orally stated at the start of math review checks daily.

Example Key Statements: Grades 3-4
(Consider the age and grade level when wording key statements)

Addition/Addition Facts
- Building through 5/10 helps with addition.
- When adding the same numbers in a different order, the quantity is the same. (Commutative Property)
- I can use part-part/whole relationship to solve addition problems.
- I can add two digit numbers by combining the tens and ones.
- When adding 10 the ones digit stays the same.
- I can combine numbers to make the equation more simple to solve (Associative Property) 
  \[5 + 3 + 2 = 5 + 5\]
- + or - symbols tell us what operation to use when solving a problem.
- Decomposing and recomposing numbers allows us to add efficiently.

1 more/less 10 more/less or 100 more/less
- 1 more or 1 less changes the ones place.
- 10 more or 10 less changes the tens place.
- 100 more or 100 less changes the hundreds place.
Key Statements

- Go at the top of your math warm up.
- Emphasize concepts or vocabulary that the students struggle with.
- Can be teacher made or picked off of the key statement list.
- Should be orally stated at the start of math review checks daily.

Key Statement

- The answer to an addition problem is called the sum.

<table>
<thead>
<tr>
<th>Wednesday (8/15)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subtraction</strong></td>
</tr>
<tr>
<td>458</td>
</tr>
<tr>
<td>- 233</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Addition</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>254</td>
</tr>
<tr>
<td>+227</td>
</tr>
</tbody>
</table>
How to Choose Your Math Warm-Up Topics

• Start by looking at data from your latest checkpoint of CFA (only every 2 weeks can new topics be picked after students have mastered a box on their MR quiz)
• Look at the readiness TEKS that have the lowest score, then look at supporting. Pick the 4 lowest that need immediate attention.
• May also have to be based on teacher observation
• Can be picked according to the general struggles of your grade level (for example: 3rd grade always struggles with 2 step word problems)
Math Warm Up Quiz

- ESSENTIAL for success
- Math Review Quiz given routinely (every 2 weeks Except kinder)
- Pull 2 or 3 question from math reviews completed over the 2 weeks and compile them into a quiz.
- Two problems per topic on specific skill
- If 85-90% of students master the topic in that box, look at your data and choose a topic to replace mastered one.
- If there are topics that are not mastered, keep that topic on for another two week cycle.
- You can use the data from the math review quiz to guide your intervention groups as well.
- Looks very similar to math review.
# Math Warm-Up Quiz

**Math Review Quiz 11/16/18**

**Multiplication/Division**
1. Ms. Leimer was cleaning tables in the cafeteria. She cleared 10 tables and on each table there was 3 pieces of trash! How many pieces of trash did Ms. Leimer have to pick up off the tables?

2. Look at the table of paired numbers below, tell me the rule and fill in the blanks!

<table>
<thead>
<tr>
<th>Hands</th>
<th>Fingers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>24</td>
</tr>
<tr>
<td>6</td>
<td>42</td>
</tr>
</tbody>
</table>

Rule: ________

3. Syd has 16 ladybugs. She will put these ladybugs in 8 cases. How many will go in each case?

**Money**
5. Draw a way to make $1.63 using ONLY COINS.

6. Tom has 255 apples. He eats 189 of them, then he buys 67 more. How many apples does he have now?

**Subtraction/Addition**
8. Montana had 777 apples. And Sydney has 389 apples. What is the difference in the number of apples they have?

- **Table of Paired Numbers**
7. Fill in the in and out table below and tell me the rule.

<table>
<thead>
<tr>
<th>In</th>
<th>Out</th>
</tr>
</thead>
<tbody>
<tr>
<td>12</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>13</td>
</tr>
</tbody>
</table>

- **Subtraction/Addition**

Rule: ________

777

389
# Math Warm-Up Do’s and Don’ts

<table>
<thead>
<tr>
<th>Do</th>
<th>Don’t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spend only about 20 minutes checking it</td>
<td>Spend 30 or more minutes checking it. If students do not understand have them fix it with a pen and note them for intervention groups.</td>
</tr>
<tr>
<td>Include previously taught topics (that includes topics from the grade level before)</td>
<td>Include any NEW content</td>
</tr>
<tr>
<td>Individualize your math review for your class based on your data</td>
<td>Use the same math review as the people on your team (once you get the ball rolling with math review)</td>
</tr>
<tr>
<td>Give stars for each correct step</td>
<td>Do not wait until the end to add stars (they need immediate feedback)</td>
</tr>
<tr>
<td>Fix incorrect items with a marker or pen</td>
<td>Let them erase and fix incorrect work (if they correct with a pen they can go back the next day and see what they did wrong before and avoid it)</td>
</tr>
<tr>
<td>Carefully target vocabulary needed for topics</td>
<td>Use non-math vocabulary</td>
</tr>
</tbody>
</table>

- **Do’s:**
  - Spend only about 20 minutes checking it.
  - Include previously taught topics (also includes topics from the grade level before).
  - Individualize your math review for your class based on your data.
  - Give stars for each correct step.
  - Fix incorrect items with a marker or pen.
  - Carefully target vocabulary needed for topics.

- **Don’ts:**
  - Spend 30 or more minutes checking it. If students do not understand, have them fix it with a pen and note them for intervention groups.
  - Include any NEW content.
  - Use the same math review as the people on your team (once you get the ball rolling with math review).
  - Do not wait until the end to add stars (they need immediate feedback).
  - Let them erase and fix incorrect work (if they correct with a pen, they can go back the next day and see what they did wrong before and avoid it)
  - Use non-math vocabulary.
How Math Warm-Up Looks in My Room

- I type math review in a Word document, however it can be hand written daily by the teacher.
- I print math review for my students two to a page (to save copies)
- Students complete math review for morning work when they come in.
- We check math review at the very beginning of math time.
- To start off checking we read the key statement at the top.
- I give stars for each step/part of the problems.
- At the end they count up their stars and put their total at the top.