

# Math Center Lesson Format

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## TRANSFORM TEACHING AND LEARNING IN MATH

Utilizing Standards Based Centers and Lesson Study

## SO... WHY FOCUS ON INSTRUCTION?

Imagine creating and supporting a cultivating environment that would give teachers the opportunity to engage in reflective practice to ensure that they were providers of engaging mathematics that fostered learning and understanding.

## SO... WHY CENTERS AND LESSON-STUDY?

### Math Centers:

- Encourage students' independence and increase enthusiasm for learning by giving students opportunities to make choices, work together, and talk about math.
- Students are more likely to explore different approaches to problem solving, and to question, take risks, explain things to each other, and have their ideas challenged.
- Centers help bring math content to life through fun activities.

### Lesson Study:

- Provides a process for teachers to collaborate and make sense of educational goals.
- Allows teachers to observe and collect immediate data on student knowledge, understanding, and interest
- Targets academic development and identifies factors that affect student motivation to learn.
- Places teachers in the role of researcher and encourages improvement in their instructional practice.

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**CCSS: 3.NBT.1- Use place value understanding to round whole numbers to the nearest 10 or 100**

<p><b>Who?</b> <b>Is doing the learning?</b></p>	<p><b>Examples:</b></p> <p>SWBAT I will...</p>	<p><b>Write your Objective Here:</b></p> <p>I will use place value understanding to round whole numbers to the nearest 10 or 100 using:</p> <ul style="list-style-type: none"> <li>• A number lines, place value drawings, or a hundreds chart</li> <li>• The basic principles of rounding</li> </ul>
<p><b>What?</b> <b>Are they required to do?</b></p>	<p><b>What is to be taught (the standard).</b></p> <p>Use place values understanding to round whole numbers to the nearest 10 or 100</p>	
<p><b>How?</b> <b>Will they do it?</b></p>	<p><b>What manipulatives/strategies/materials will be used?</b></p> <p>A number line, place value drawings, a hundreds chart, basic principles of rounding</p>	
<p><b>What's the degree of understanding</b> <b>How will it be assessed?</b></p>	<p><b>What final task will you have students complete to assess what was taught?</b></p> <p>Students will estimate a set of numbers to the nearest 10 or 100.</p>	<p><b>Write your Demonstration of Learning (Ex. Exit Ticket) Here:</b></p> <p>Estimate the five following numbers to the nearest 10 or 100 using the principles of rounding, a number line, or place value drawing.</p> <p>75, 94, 189, 254, 472, 602</p>

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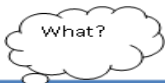
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CCSS:

<p><b>Who?</b> <b>Is doing the learning?</b></p>	<p><b>Examples:</b>  SWBAT I will...</p>	<p><b>Write your Objective Here:</b></p>
<p><b>What?</b> <b>Are they required to do?</b></p>	<p><b>What is to be taught (the standard).</b></p>	
<p><b>How?</b> <b>Will they do it?</b></p>	<p><b>What manipulatives/strategies/materials will be used?</b></p>	
<p><b>What's the degree of understanding</b> <b>How will it be assessed?</b></p>	<p><b>What final task will you have students complete to assess what was taught?</b></p>	<p><b>Write your Demonstration of Learning (Ex. Exit Ticket) Here:</b></p>

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**What are students required to do (Key points of the standard):**

**Use place values understanding to round whole numbers to the nearest 10 or 100**



Will they do it? **1<sup>st</sup> Floor- Recall**- remember, recognize, identify **2<sup>nd</sup> Floor-Use**-understand, classify, compare, explain analyze **3<sup>rd</sup> Floor-Create**-evaluate, test, construct, judge

Class time	Activity	What misconceptions might exist?
Whole Group (10-15 minutes opening of class):	Human number line- Number 120, 130, 140, 150, 132, 134, 138, 137, 135, 131 Which number are you closest to? Introduce 100, 200 repeat previous steps.	Understanding number order, distance away from a number, tens, hundreds. Which number is used to round
Small Group: (10-15 minutes per Center)		
Center/Activity 1: Teacher	Algorithm for rounding	Understanding which place value is used when rounding to the lower number.
Center/Activity 2: Technology	Soccer Math-Rounding to the nearest 10 and 100	Identifying place value
Center/Activity 3:Skill	Rounding worksheet/activity for 10's and 100's What's the Nearest Ten?	If 99 is rolled will students round to 100?
Center/Activity 4: Tactile/Game	Pumpkin Bump	Place value- rounding to 10 or hundreds place
Individual Assessment (10 minutes):	Round five of the numbers to the nearest 10 or 100 using the principles of rounding, a number line, or place value drawing. 75, 94, 189, 254, 472, 602	Which strategy is best to use.

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**What are students required to do (Key points of the standard):**



Will they do it? **1<sup>st</sup> Floor- Recall-** remember, recognize, identify **2<sup>nd</sup> Floor-Use-**understand, classify, compare, explain analyze **3<sup>rd</sup> Floor- Create-**evaluate, test, construct, judge

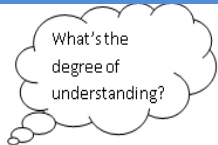
Class time	Activity	What misconceptions might exist?
Whole Group (10-15 minutes opening of class):		
Small Group:		
Center/Activity 1:		
Center/Activity 2:		
Center/Activity 3:		
Center/Activity 4:		
Individual Assessment (10 minutes):		

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**What are students required to do (Key points of the standard):**



What quality of questions should I ask? **1<sup>st</sup> Floor- Recall**-remember, recognize, identify **2<sup>nd</sup> Floor-Use**-understand, classify, compare, explain analyze **3<sup>rd</sup> Floor-Create**-evaluate, test, construct, judge

Activity	Misconceptions	Questions
Whole Group (10-15 minutes opening of class):		
Small Group:		
Center/Activity 1:		
Center/Activity 2:		
Center/Activity 3:		
Center 4:		
Individual (10-15 minutes):		

# Model Classroom Observation Recording Form

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Teacher Name: \_\_\_\_\_

Grade: \_\_\_\_\_

Date: \_\_\_\_\_

CCSS: \_\_\_\_\_

Lesson objective: \_\_\_\_\_

\_\_\_\_\_

Activity	Observation	Notes
Mini-Lesson Focus :		
Center 1 Name:		
Center 2 Name:		
Center 3 Name:		
Center 4 Name:		
Formative Assessment:		

Other comments/questions for teacher:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

# Math Center Lesson Format

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Elementary Math Website for Plainfield Public Schools

Locate: **Elementary Math Shared CCSS Lesson/Center Instruction Lesson Format/PD presentations**

Standard: \_\_\_\_\_

Objective: \_\_\_\_\_

## I. Do Nows (for samples click here)

Pre-requisite skills necessary for the lesson

## II. Open Lesson (10 to 15 minutes)

*My Math powerpoint (select appropriate slides)*

*Learnzillion*

## III. Centers (10 minutes per center)

### 1. *My Math journal pages with teacher*

### 2. *Technology Center*

*Arcademics*

*Sheppardsoftware*

*Mathchimp*

*Splashmath*

### 3. *Tactile/Game Station*

*K-5mathteachingresources*

*Mathwire*

*Learn-with-math-games*

### 4. *Skill center*

*Superteacherworksheets*

*Commoncoresheets*

*Mathworksheetsland*

*Mathchimp*

*Mathfactcafe*

### 5. *Reinforcement/Enrichment Center*

## IV. Formative Assessment (5 minutes)

### 1. *Use My Math closure*

### 2. *Use Howard county site*

### 3. *For other samples click here*