Unit 2	Large Group: Pigs LOVE Potatoes! High Support	Math LG	Standards: MELDS.M.MP.PS.3 MELDS.M.MP.PS.4 MELDS.M.MD.PS.3
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#### Guiding Math Idea:

• Problem Solving- Working with Friends to Solve Problems

## Math Concepts From Unit Learning Progressions:

- People work together to solve math problems.
- Math words and ideas appear in stories, outside and at home.

# Adaptations for Using Large Group In Alternate Schedule Slots:

• An alternative to this activity: Your class may be ready to solve a classroom-based problem. Refer to Unit 1 *Where's the Math? Teacher Supports on Math as a Problem Solving Activity* to identify class problems and guide children through the problem-solving process.

Materials:	Math Vocabulary:
<ul> <li><i>Pigs Love Potatoes</i> by Anika and Christopher Denise</li> <li>Chart paper and marker</li> <li>Sequence words: First, Next, Last- Written on 5 X 7 Index Cards- include several copies of the word <i>Next</i>.</li> <li>Items that the children gather to help tell the story.</li> </ul>	<ul> <li>More: additional. I have one potato; I need More.</li> <li>Substitute: something that takes someone or something else's place</li> <li>Enough: just right</li> <li>Left over: more than we need</li> </ul>

# **Preparation:**

Math ideas are in many picture books and stories, such as in Unit 3, Week 1 which begins with a familiar math story problem, Goldilocks. Prepare the Sequence word cards.

We like to solve problems in our class using our math brains. Does anyone remember what a problem is? Yes, a problem is something we try to figure out or solve. Well, I have a problem today. I want to read a book about some pigs and 10 potatoes,	Children may remember some problems the class solved such as Missing Monkeys. If the class solved other social problems, mention them here. Show book.
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but I want to use some potatoes, and I don't have any real potatoes.	As children give ideas, write them down in order.
Is this a problem that math could help us solve?	
What could we use to <b>substitute</b> for potatoes? Substitute means we will find something we can use instead of real potatoes. We have time for 4 ideas.	Limit the number of ideas to conserve time.
Let's see, on my list I have these ideas:	
First, XXX says we could use blocks Next: XXX says we could get some pinecones for our math center for potatoes	Place the sequence cards by each idea- First, Next, Next, last
These are good ideas. Let's try XXX and XXX and	Go through the list and read them in order
XXX can you go get some pinecones? Etc.	Choose ideas, ask children to gather the items. Do not count the blocks or pinecones. Let the children bring a pile of them.
Let's find out about pigs and potatoes.	Read the book. As you add "potatoes", count with children.
Hmmm, do we have <b>enough potatoes</b> in our pile?	enough potatoes. OR You may have too many potatoes.
Is this a problem that math could help us solve? Or- we have a lot of potatoes left over—I wonder how many more pigs could come and eat?	Children may suggest counting and adding or taking away potatoes to have <b>enough- just right.</b> Children count to find out.
Each time, the mother added one <b>more</b> potato to her group.	
How many did she have altogether?	
Let's think about our story again.What happened first? What was next?And what happened last?	Use sequence cards as you re-tell the story together with the children.
I wonder why did Momma put another potato in the pot?	<i>Momma added an extra potato Will children notice this?</i>

I wonder--does every pig have a potato?How could we find out?Is this a problem that math could help us solve?

Don't offer your own solution. End by writing down any answers from the children.

## Strategies to Provoke Math Thinking:

- Finding math in stories: Counting books like *Pigs Love Potatoes* have obvious math concepts- but look deeper and you will find that two groups are compared- pigs and potatoes, and there is a math problem embedded --- Is there one more potato than pigs? Inquiring minds want to know!
- Is this a problem that math could help us solve? How could we find out? These key questions in problem solving and mathematizing experiences can be used often as you encounter all sorts of problems- social, schedule conflicts, toy sharing, room arrangement, etc.
- Counting is a specific One Plus relationship- One more item is added each time. Yet, more is also a vague word that describes the idea of adding to what we already have. Children use and understand this word in both ways---More pudding at lunch is an indefinite amount One more turn on the swing is an indefinite time period—but one more toy has to be put in the bucket- specific. Use everyday, teachable moments to help children grasp this difficult concept.
- SWPL- Use the chant/game Just One More as a fun way to explore the idea of more.

#### **Provocation:**

What to know *More* about *More*? *Just One More* by Jennifer Rolli and *More, More, More said* the

Baby by Vera Williams are books that can spark discussions or activities about More.