


<p>Unit 6</p>  <p>Week 3</p>	<p>Large Group: Inch by Inch Measuring</p>	<p>Math LG</p>	<p>Standards: MELDS.M.MP.PS.6 MELDS.M.MD.PS.10 MELDS.M.MD.PS.11</p>
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<p>Guiding Math Ideas:</p> <ul style="list-style-type: none"> ● Living things grow and have life cycles (Enduring Understandings) ● Measurement as Practical and Purposeful: Measurable attribute of things that grow. <p>Math Concepts From Unit Learning Progressions:</p> <ul style="list-style-type: none"> ● Using standard and non-standard measurement in different ways with different tools. ● Solving problems with measurement. <p>Adaptations for Using Large Group In Alternate Schedule Slots:</p> <ul style="list-style-type: none"> ● Use the Inchworm motions and song in SWPL or transition times.
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<p>Materials:</p> <ul style="list-style-type: none"> ● <i>Inch by Inch</i> by Leo Lionni ● A method of enlarging/projecting the book cover and/or other images of the inchworm ● Inchworm song [Optional- Attached] 	<p>Math Vocabulary:</p> <ul style="list-style-type: none"> ● Measuring: a way of finding out more about something using numbers and tools ● Stretching: moving our muscles out and in ● Collage: art made out of a collection of different things glued together on a paper
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Preparation:

You need the book, imagination, and a big area for children to spread out.

If you have access to an old overhead projector or internet or other projector, project a large image of the cover and a few pages, since the inchworm is relatively small in the illustrations,

<p>There are so many things we have been learning about gardens, and growing plants and animals. This week, we are going to doing lots of measuring. How do we measure things? Here is a book about an insect that could measure with his whole body. <i>Inch by Inch</i> by Leo Lionni. He wrote the words and illustrated</p>	<p><i>Children give different definitions & examples.</i></p> <p><i>Show cover. Project large image if possible. Children will search for the small inch worm and identify it.</i></p>
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the pages with **collage**. We have made collages in art and math.

Look carefully at this picture. Do you see the insect I am talking about?

Yes it is a very small insect, call an Inchworm. Let's read this book about a measuring Inchworm.

The inchworm used his body to measure. He stretched his body out and in, out and in as he measured parts of some birds. Let's pretend to be inchworms and stretch our arms.

I'm going to read the book again. When the inchworm measures and counts, we can too! Out and In; Out and In. The inchworm measured using his body and we can too.

On the robin, the inchworm measured 5 inches. On other pages, I will call out a number and we will measure that many times.

Get your Inchworm Arms ready- Here we go! Each time that the Inchworm measured, did the numbers get larger or smaller? Yes, it seemed like the Inch Worm had to keep measuring longer and longer things! Let's play again. We have an *Inchworm Song* to help us use our bodies to measure. We will be playing this again in SWPL this week and you will have a chance.

Read book. As you read, move the finger and thumb of one hand in an inchworm-like motion. Some children may begin to imitate you.

Demonstrate stretching out your arms as far as they can go and saying- out. Bring them close to your body- say in.

Children move their Inchworms arms out and in.

Read book a second time with motions.

The Robin is measured as 5 inches. Have the children stretch out their arms and pull them back and count together. For other pages, call out numbers, choosing a larger number each time- 7 9 11, 13, etc. to model the ever lengthening measuring that the Inchworm does in the book.

When you get to the nightingale song, you can sing the simple Inchworm song [Optional- Also sung in SWPL]

Repeat as often as you have time.

Strategies to Provoke Math Thinking:

- Non-standard measuring: The inchworm does not literally measure an inch each time it moves. It is using non-standard measurement, however (How clever of it!). Non-standard measurement prepares children for standard measurement. *Big Ideas of Early Math-- Erikson Early Math Collaboration*, is an excellent resource for steps in measuring.

Provocation:

- There are lots of different ways to measure with our bodies. Invite the children to measure things with their bodies while outdoors on the playground or at large motor time. SWPL has suggestions for other ways to measure using our bodies.
- Science: Investigate inchworms and their unique ways of moving.

The Inchworm Song-- from U6 SWPL

Sung to the Tune of *Go In and Out the Window*

As you sing the words keep a rhythm of stretching either out and in or up and down in time with the music. You can use different body parts to mimic the motion: fingers, arms, legs (jumping jacks), heads, shoulders, whole bodies.

Stretch Out and In and Measure
Stretch Out and In and Measure
Stretch Out and In and Measure
The Inchworm does its work.

Stretch High and Low and Measure
Stretch High and Low and Measure
Stretch High and Low and Measure
The Inchworm does its work.