

Amanda Bean's Amazing Dream
by Cindy Neuschwander

Parts of the Lesson	Materials Needed
<p>I. Pre-activity: Explore multiplication</p> <ul style="list-style-type: none"> -Making Arrays. Have children make as many rectangles as they can find, using their blocks, & record findings. - Making Groups. Have children make groups and demonstrate how how 2 groups of 5 is the same as 5+5, or 2x5 (connecting addition to multiplication). 	<p>I. Pre-activity: Explore multiplication</p> <ul style="list-style-type: none"> -Each child gets a minimum of 20 <u>Multilink cubes</u> or <u>Linkit cubes</u>. (These cubes can be linked to make rectangles. Use $\frac{3}{4}$" <u>graph paper</u> to match the size of the linking cubes, if desired.)
<p>II. Read the book (Talking points)</p> <ul style="list-style-type: none"> -Read the story, enjoy the pictures. -Discuss how Amanda is either counting or adding to find totals, then switches to multiplication. -Why doesn't she want to learn multiplication? (Discuss how people learn new things every day, lifelong.) 	<p>II. Read the book.</p> <ul style="list-style-type: none"> -At least one copy of <u>the book</u>. Metacognitive opportunity! As you read, discuss how new ideas (like multiplication) are built on old ideas (like counting and adding). Everything you already know helps you learn new things!
<p>III. Do the math</p> <p>Explore the structure and use of the multiplication chart.</p> <ul style="list-style-type: none"> -Assign children a number from 1 to 30. Have them use 1-in. graph paper to cut out rectangular arrays. -Put the rectangles on 12"x18" charts labeled "1" through "30" -When done, use the charts with the arrays to show the relationship to the multiplication chart. [Also to discuss prime and composite numbers with older students.] 	<p>III. For the activities:</p> <ul style="list-style-type: none"> -Photocopies of <u>1-in. graph paper</u> -<u>Pencils, scissors, scotch tape</u> -<u>30 pieces of 12x18" paper labeled "1" through "30"</u> -<u>a large blank multiplication chart on one-inch graph paper - or a transparency</u>, so that the group can see patterns emerge on the chart. (Note: the large 25"x30"graph paper tablets usually have 1" squares)
<p>IV. Wrap Up (Debrief)</p> <ul style="list-style-type: none"> -Use the chart to count by 1's, 2's, 5's and 10s both horiz and vertically. Look up multiplication facts. Find the "square" numbers. 	<p>IV. Wrap Up</p> <ul style="list-style-type: none"> -(optional) Have children work on the <u>Funbook pages 1-2</u>. Let children <u>take home 20-30 cubes</u> to build, or to find more multiplicative arrays.

