

Grade 2	Lesson: 4-2	Reference to English
<b>Math Standard(s): 2.OA.4 Domain: Operations and Algebraic Thinking</b>		
<b>Content Objective(s):</b>		<b>Language Objective(s):</b>
Students will build arrays to model repeated addition situations. 我会组成排列来表示出重复的加法。		Students will use the words column and row to describe arrays. 我会用排和列来形容排列。
<b>Essential Understanding:</b> An array involves joining equal groups and is one way to think about repeated addition.		<b>Academic Vocabulary:</b> <b>Listen:</b> 排列, 排, 列 <b>Read:</b> <b>Write:</b> <b>Speak:</b> 排, 列, 等于 <b>Sentence Frame:</b> 有几排? 有几列? 它们是相等的吗?
<b>Materials:</b> • Two color counters (Teaching tool 10)		<b>Language and Word Wall:</b> 排列, 排, 列
<b>Lesson: Building Arrays</b>		<b>Instructional Time: 45 mins</b>
<p><b>Opening: (3 minutes) –</b> Students should have page 105 T: “上次你们学会怎么做重复的加法。今天你会学习怎么用排列来帮助你做加法。” Draw 15 counters on the board, shown as 3 rows with 5 counters in each row. T: “你可以用什么方式来找出一共有几个? 告诉你旁边的同学。” S: will talk with partners</p> <p><b>Introduction to New Material (Direct Instruction): (8 minutes)</b> T: Point to the drawing on the board. “这是一个排列。在排列中, 每排里的计数板数量都一样多。” Point to a row. “一个排列中, 每列的计数板数量也一样多。你可以为这个排列写出一个加法算式。” Write <math>5+5+5=15</math> on the board. T: “看你工作板上的排列。排列里有几排? 用手指比给我看。” S: will show 3 fingers T: “每排的计数板一样多吗? 点头或摇头。” S: will nod their heads T: “每列的计数板一样多吗?” S: nod their heads T: “每排都相等, 每列也都相等, 所以这是一个排列吗? 用大拇指比给我看。” S: thumbs up Erase the counters and draw more counters on the board, this time making two of the columns shorter than the others. T: “这里还有一些计数板。这是一个排列吗? 用大拇指比给我看。” S: thumbs down T: 为什么? S: “Because the columns are not equal.”</p> <p><b>Guided Practice: (10 minutes)</b> Arrange students in pairs. Each pair should have page 105 and counters. T: “在你的纸上做出一个排列。排列需要有两排, 每排要有 4 个计数板。” S: will use counters T: “很好。每排一定要是相等的。在第 1 题的空格上写上加法算式: <math>4+4=8</math>” S: will fill in the addition sentence T: “跟你的同学做出一个有 3 排的排列。你可以决定每列里要放几个计数板。要记得每列一定要有一样数量的计数板。” S: will make an array with their partners T: “很好, 现在你有你的排列了, 请在第二题的空格里写上加法算式并找出答案。” S: will write in their sentences T: “再跟同学做出一个有 3 排的排列, 但是要跟你刚刚做的不一样。之后请写粗加法算式和答案。” S: will work with partners</p> <p><i>Use the modeling cycle:</i> Teacher Does: T: “看第 106 页。把手指放在第一题上。”</p>		

S: Students will point to number 1

T: “这些排列是用说过做成的。你需要找出这些排列的加法算式。第一题有两排，每排有 5 根香蕉。所以我们的算式是： $5+5=?$  如果你不知道答案，你可以数有几根香蕉然后写出答案。”

2 Students Do with Teacher:

T: “我需要 2 个学生来帮忙。”

S: two students will come up and lead the class in doing number 2.

**Independent Practice: (7 minutes)**

T: “现在换你自己做到第 7 题了。”

S: will work independently

Walk around the room, watching students work.

**Closing: (10 minutes)**

T: “今天做得很好。现在你有两分钟来为班上同学的数量做出一个排列。你要自己想每排和每列要有几个人并检查每排和每列的数量是不是相等的。请开始。”

S: will stand and decide how to use their bodies to make a class array.

When the two minutes is up, clap hands and students freeze. Discuss what happened and why.

T: “现在我会给你一张纸然后你要在纸上为这个应用题画出一个排列并写下加法算式。我在摘花，我把我摘的花分成 3 排。每排有 4 朵花。”

S: will draw, then turn in their papers.

**Assessment:**

Collect half-sheets of paper and assess children's understanding