

Grade 2	Lesson: 6-6 Problem Solving: Look for a Pattern	Reference to English
Math Standard(s): 2.NBT.2 Domain: Number and Operations in Base Ten		
Content Objective(s):	Language Objective(s):	
Students will use number patterns to solve problems. 我会用数字序列来解答问题。	Students will say ___ comes next. 我会说接下来是___。	
Essential Understanding: Some problems can be solved by identifying elements that repeat in a predictable way.	Required Academic Vocabulary for Word Wall: Listen: 预测 Read: Write: Speak: 下一个 Sentence Frame:	
Materials: • Connecting Cubes (Teaching Tool 1) • Whiteboards, erasers, markers • Look for a Pattern (page 177) • Guided Practice (page 178)	Additional Lesson Vocabulary: 数字序列	
Lesson:		Instructional Time: 25 – 30 minutes
<p>Opening: (3 minutes)</p> <ul style="list-style-type: none"> Have the students on the carpet at the beginning of the lesson. <p>T: “你已经学会怎么做一个整齐的清单来解答问题。今天你会学习怎么找出序列来解答问题。”</p> <p>T: “我先数然后我要你们加入我。2,4,6,....”</p> <p>S: <i>will join the teacher skip counting by 2s.</i></p> <p>T: “很好，我们在来用另一个序列数 10, 20, 30, 40,...接下来呢？”</p> <p>S: <i>will count by 10s with the teacher and then say the next number.</i></p> <p>T: “最后一个 5, 10, 15, 20... 接下来呢？”</p> <p>S: <i>will count by 5s with the teacher and then say the next number.</i></p> <p>T: “当你告诉我下一个数字是什么的时候，你就是在预测。预测就是你不确定的答案。”</p> <p>Introduction to New Material (Direct Instruction): (5 minutes)</p> <ul style="list-style-type: none"> Write 1, 4, 7 on the board. Pass out connecting cubes ready for each students. <p>T: “我在白板上写了一个序列 1, 4, 7, ___. 下一个数字是什么？用连接方块来找出序列里的下一个数字。”</p> <p>S: <i>will use connecting cubes to find out what number comes next in the pattern.</i></p> <p>T: “我们一起来做。第一个数字是 1, 这里有一个方块。第二个数字是 4, 这里有 4 个方块。第三个数字是 7, 这里有 7 个方块。我们可以找出什么序列？它们之间都差几个？用手指比给我看。”</p> <p>S: <i>will show 3.</i></p> <p>T: “很好，1 加 3 是 4, 4 加 3 是 7, 所以下一个数字是什么？”</p> <p>S: <i>will say, “10”</i></p> <p>T: “对, 7 加 3 是 10。很好。”</p> <p>Guided Practice: (10 minutes)</p> <p><u>Use the modeling cycle:</u></p> <p><u>Teacher Does:</u></p> <p>T: “Now it is your turn to practice with a partner. I am going to write 3 more number patterns on the board. You and your partner will need to use connecting cubes to predict what number comes next in the pattern. When you figure out what number comes next, you need to say ‘ ___ comes next’. You will be given page 177 to record your patterns.”</p> <p><u>1 Students Does with Teacher:</u></p> <p>T: “我需要一个学生来帮忙。”</p> <ul style="list-style-type: none"> The teacher will choose one student to volunteer. Write the first 3 numbers in a number pattern on the board – 2, 7, 12, ____. <p>T: “白板上有一个数字序列，用连接方块来预测下个数字是什么。”</p> <p>S: <i>will use connecting cubes to predict what comes next in the number pattern.</i></p> <p>T: “很好，第一个有几个方块？”</p> <p>S: <i>will say, “2 cubes.”</i></p> <p>T: “第二个有几个方块？”</p>		

S: *will say, "7 cubes."*

T: “第三个有几个方块？”

S: *will say, "12 cubes."*

T: “下一个数字是什么？它会有几个方块？”

S: *will say, "I add 5 cubes to each train. 17 comes next."*

T: “很好，下一个是 17，请写在白板上的空格里。”

S: *will write 17 on the board.*

T: “谢谢，请坐。”

All Students Do:

• Write the following patterns on the board.

- 3, 6, 9, ____
- 4, 6, 8, ____
- 1, 5, 9, ____
- 6, 12, 18, ____

T: “现在换你了。你需要完成四个序列。每组的人都要做 2 题。不要忘记说‘下一个数字是____ 你有 4 分钟来完成。’”

S: *will do the activity.*

• Teacher will walk around the room checking on the students.

T: “(teacher will clap hands), 时间到，请回到座位。”

• Collect all the papers.

Closing: (3 minutes)

• Use a document cam to show problem 1 from guided practice.

T: “我来说出一个应用题。请帮我完成表格。”

T: “星期一，科学营队里的小朋友要去看 5 只昆虫。所以星期一旁边要写上 5。”

T: “星期二他们看到 10 只昆虫，星期三他们看到 15 只昆虫。我们来看这个序列：星期一 5, 星期二 10, 星期三 15。告诉你旁边的同学下一个数字是什么。”

S: *will tell their neighbor, "20 comes next."*

T: “我们一起数 5, 10, 15, 20. 下一个是 20, 然后呢？”

S: *will respond, "25 comes next"*

T: “对，下一个数字是 25。很好。”

T: “如果我们继续看序列的话，星期六学生会看到几只昆虫？告诉你旁边的同学。”

S: *will turn to their neighbor and say, "30 insects."*

T: “跟我一起数 5, 10, 15, 20, 25, 30. 学生星期六会看到 30 只昆虫。下一个数字是 30。”

T: “今天做得很好。”

• If the students need more practice continue with problems 3-5 on Independent Practice.

Assessment:

Guided Practice

1 10	2 20	1 10	2 20
3 30	4 40	3 30	4 40
5 50	6 60	5 50	6 60
7 70	8 80	7 70	8 80
9 90		9 90	