Grade 2	Lesson: 8-4 Models to Add Two-Digit Numbers	Reference to English

Math Standard(s): 2.NBT.5 (also 2.NBT.6 and 2.NBT.9)	Domain: Number and Operations in Base Ten

Content Objective(s):	Language Objective(s):
Students will use place-value models and the standard algorithm to add 2 two-digit numbers. *我会用位置积木和标准算法来相加 2 个二位数字。*	Students will teach their partner how to add 2 two-digit numbers. *我会教朋友怎么相加 2 个二位数字。*
Essential Understanding: The standard addition algorithm for two-digit and two-digit is just an extension of the algorithm for adding two-digit and one-digit numbers. The ones are added first and then the tens.	**Required Academic Vocabulary for Word Wall:** **Listen:** **Read:** **Write:** **Speak:** **Sentence Frame:**
Materials: • Place – Value Mat A (Teaching Tool 8) • Connecting cubes (or Teaching Tool 1) • Whiteboards, erases and markers. • Models to Add Two- and One-Digit Numbers (page 225) • Guided Practice (page 226)	**Additional Lesson Vocabulary:** 积木

Lesson:	Instructional Time: 40 minutes

Opening: (3 minutes)
- Draw an addition frame on the board.
- Pass out whiteboards, markers and erasers.

T: "你已经学会怎么用位置积木来做一位数和二位数相加的加法。我们一起来复习。"

T: "我在白板上写了一个加法框，请你们也在你们的白板上照画。"

S: *will write an addition frame on their board.*

T: "请把 65 加 6 填进去。"

S: *will write 65 plus 6 in the addition sentence.*

T: "给我看你的白板。 (check the students addition frames to make sure they filled them in correctly)

S: *will show the teacher their boards.*

T: "很好，现在我们来相加。告诉你旁边的同学你要先做什么。"

S: *will tell their neighbor, "add the ones first."*

T: "我们要先加个位数。请做 5 加 6 然后写在加法框里。"

S: *will add 5 plus 6 and write it in the addition frame.*

T: "请举手告诉我 5 加 6 是什么。"

S: *will raise their hands, "5 plus 6 equals 11."*

T: "没错，5 加 6 等于 11. 我会把 1 写在个位数的位置上然后把 1 个十写在十位数上的格子里。现在我要做什么？"

S: *will respond, "add the tens."*

T: "对，要加十位数。1 加 6 等于 ____？请写在白板上。"

S: *will write 7 in the tens place.*

T: "给我看你的白板。"

S: *will show the teacher their boards."*

T: "很好，65 加 5 等于 71. 请把加法算式念给你旁边的同学听。"

S: *will read, "65 plus 5 equals 71" to their neighbor."*

T: "很好，请跟我一起说出来 65 加 5 等于 71。"

S: *will say "65 plus 5 equals 71" with the teacher.*

T: "这是我们上次练习的，今天你会学习怎么用位置方块来相加 2 个二位数字。"

Introduction to New Material (Direct Instruction): (7 minutes)
- Pass out place-value mats and connecting cubes.

T: "我会把位置积木和连接方块发给你们。我来告诉你们一个应用题。**Leslie** 有 **36** 个方块。她的弟弟有 **27** 个方块。他们一共有几个方块？我会把数字写在加法框里。用连接方块然后跟一个同学合作来解答这个问题。"

S: *will work in pairs to solve the problem.*

T: "请把加法框写在白板上然后解答问题。"

S: *will write the addition frame on their boards and solve the problem.*

T: "给我看你的白板。"

S: *will show the teacher their boards.*

- Check the student work on the boards.

T: "用大拇指比给我看你有没有用连接方块来帮你。"

S: *will show thumbs up or down.*

T: "我们一起来做，然后我会用连接方块来帮忙。"

T: "Leslie 有几个方块？"

S: *will raise their hand and say, "36."*

T: "我会用方块做出 36. 我需要做出几组十？用手指比给我看。"

S: will show 3 with their fingers.

T: "没错，我有三组 10 和 6 个其他的方块。"

- Show 3 groups of ten and 6 loose cubes to the class.

T: "Leslie 的弟弟有 27 个方块。我会用方块来做出 27. 我需要做出几组十？告诉你旁边的同学。"

S: *will tell their neighbor, "2 groups of ten."*

T: "我们有 2 组十和 7 个其他的方块。"

- Show the students 2 groups of ten and 7 loose cubes. Put the groups of ten together with the other groups of ten and the ones with the other loose ones.

T: "我们有几个其他的方块？跟我一起数 1,2,3,4,5,6,7,8,9,10,11,12,13. 我们可以进位吗？用大拇指比给我看。"

S: *will show thumbs up.*

T: "对，我们需要进位。我们可以做出一组 10，跟我一起数, 1,2,3,4,5,6,7,8,9,10. 我们把这组十跟其他的十放在一起，然后在十位数上的格子里写 1。"

- Write a 1 in the box above the 3 in the tens place.

T: "我们还剩下几个一？ (show the students the loose cubes).

S: *will respond, "3."*

T: "没错，我会把 3 写在个位数的位置上。"

- Write 3 in the ones place.

T: "我们加了个位数，然后进位，接下来呢？"

S: *will respond, "add the tens."*

T: "对，我们要加十位数。告诉你旁边的同学，1 加 3 加 2 等于 ____."

S: *will turn to their neighbor and say, "1 plus 3 plus 2 equals 6."*

T: "看白板，我们有 36 加 27 等于 63. 检查你的白板看你的答案跟我的是不是一样的。"

S: *will their boards.*

Guided Practice: (12 minutes)

Use the modeling cycle:

Teacher Does:

T: "现在换你和同学练习了。你们要互相教导然后交换。你们要教白板上的两个题目。"

1 Students Does With Teacher:

T: "我需要 1 个学生来帮我。"

- Teacher will choose a student.

T: "我要你教我怎么用加法框来做加法。题目是 36 加 47."

- Write 36 plus 47 in a number frame on the board.

T: "请教我怎么做 36 加 47。请告诉我要先做什么然后再做什么。"

S: *will say, "first you add the ones. 6 plus 7 equals 13. Then regroup."*

T: "6 加 7 等于 13. 我要怎么把它写在加法框里？"

S: *will respond, "write the 3 in the ones, write the 1 in the box."*

- Teacher will write 13 in the appropriate place in the addition frame.

T: "接下来要做什么？"

S: *will say, "add the tens. 1 plus 3 plus 4 equals 8. Write 8 here (in the tens place)."*

T: "你可以把加法算式念给我听吗？"

S: *will say, "36 plus 47 equals 83."*

T: "很好，谢谢你，请回座位。"

- Help the student with the steps as needed. If they need help with the language, scaffold them along.
- Write the steps on the board so students can use it while they are teaching each other.

2 Students Do:

- Have 2 addition frames written on the board. Problems are 24 plus 35 and 59 plus 13.

T: "我需要 **2** 个学生来帮我。"
- Teacher will choose two students to come up and help.

T: "学生 **1** 需要加学生 **2** 怎么用加法框来做加法。学生 **2** 要选数字卡。"

S: *#2 will pick the cards and student #1 will write them in the addition frame.*

S: *#1 will teach student #2 how to add the numbers.*
- 1st add the ones.
- 2nd regroup.
- 3rd write the ones in the ones place.
- 4th write the tens above the tens.
- 5th add the tens
- Scaffold the students as needed.

T: "现在请交换。学生 **1** 会选数字卡然后学生 **2** 会教学生 **1** 怎么做加法和进位。"

S: *#1 will pick the cards and student #2 will write them in the addition frame.*

T: "学生 **1** 要选一张卡然后写在加法框里。"

S: *will pick a card and write the number on the addition frame on the board.*

T: "学生 **2** 要教学生 **1** 怎么做加法和进位。"

S: *#2 will teach student #1 how to add and regroup.*

T: "谢谢你，请回座位。"

All Students Do:

T: "现在换你了。我会给你们第 **225** 页和 **2** 叠数字卡。你门要在 **8** 分钟内完成 **4** 题。"

S: *will do the activity.*
- Teacher will walk around the room helping and guiding groups as needed.

T: "**10, 9, 8, 7, 6, 5, 4, 3, 2, 1.** 时间到，请把连接方块收起来，把纸交给我，然后回到地上的座位。"
- Collect the papers.

Independent Practice: (10 minutes)

T: "现在换你自己做了。我们先一起来做第一题。"

T: "**27** 加 **23** 等于 ____? 我们要先加个位数还是十位数？"

S: *will respond, "the ones."*

T: "对，我们要加个位数。**7** 加 **3** 是什么？如果你知道答案请举手。"

S: *raise their hands and say "7 plus 3 equals 10."*

T: "我们要进位吗？用大拇指比给我看。"

S: *will show thumbs up.*

T: "我会在个位数的位置上写 **0** 然后把 **1** 个十写在十位数上的格子里。接下来要做什么？"

S: *will respond, "add the tens."*

T: "对，我们要加十位数。**1** 加 **2** 加 **2** 等于 ____? 告诉你旁边的同学。"

S: *will tell their neighbor, "1 plus 2 plus 2 equals 5."*

T: "用手指比给我看。"

S: *will show 5 with their fingers.*

T: "很好，请把加法算式念给你旁边的同学听。"

S: *will read, "27 plus 23 equals 50."*

T: "很好，我们有进位吗？用大拇指比给我看。"

S: *will show thumbs up.*

T: "现在换你自己做了，你有 **6** 分钟来完成 **4** 题。"

S: *will work on the rest of the problems.*

T: "**10, 9, 8, 7, 6, 5, 4, 3, 2, 1.** 时间到，请把连接方块收起来，把纸交给我，然后回到地上的座位。"
- Collect the papers.

Closing: (8 minutes)
- Pass out whiteboards, erases and markers.

T: "最后我们一起来做一个应用题。我念出来然后你把资料写在白板上。

T: "**Rico** 用 **36** 个积木做了一个堡垒。**Tony** 用了 **38** 个积木做了一个比较大的堡垒。"

S: *will write 36 and 38 on their boards.*
- Teacher will write 36 plus 38 on the board in the addition frame.

T: "他们一共用了几个积木？找出答案。"

S: *will find the answer and write it on their board.*

T: "给我看你的白板。很好，我把 **36** 加 **38** 写在加法的框里了。告诉你旁边的同学要先做什么。"

S: *will say, "add the ones."*

T: "对，要先加个位数。**6** 加 **8** 等于 **14.** 我需要进位。我要把 **4** 写在哪里？"

S: *will say, "in the ones place."*

• Write 4 in the ones place.

T: "我要把 **1** 写在哪里？"

S: *will say, "in the box."*

T: "对，我要把 **1** 写在十位数上的格子里。"

• Write 1 at the bottom the tens column.

T: "接下来呢？"

S: *will say, "add the tens."*

T: "对，要加十位数，**1** 加 **3** 加 **3** 等于 **7.** 我来写下来。请把加法算式念给你旁边的同学听。"

S: *will read, "36 plus 38 equals 74."*

T: "很好，**36** 个积木加 **38** 个积木等于 **74** 个积木。"

Assessment:
Guided Practice