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Early Subtraction

**A Collaborative Guided Inquiry
with Ann Baker**

Sample Lesson Plan



Resources

Each pair of students will need:

- The *Showing Subtraction* mat (Slide 4) made into a mini-whiteboard and a marker.
- 10 counters.
- 5 coloured craft sticks labelled 5, 6, 7, 8, 9 and 6 plain craft sticks labelled 1, 1, 2, 2, 3, 3.
- A cup to hold the craft sticks.



- 1** Show Slide 5. Read each clue to the students and ask:
“What do we know?”
(6 in the loop, 3 removed)
“What don't we know?” (the answer)

Ask the students to match each clue with counters and on the mini-chunking diagram as you say them.

Slide 1

Result Unknown

Put 6 counters in the loop.
Move 3 out of the loop.
How many are left in the loop?

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- 2** Show Slide 6 and involve students in reading and marking the clues on the mini-chunking diagram until each stage is complete.
Make sure that students model with their counters at the same time.

Slide 2

Result Unknown

Put 7 counters in the loop.
Move 3 out of the loop.
How many are left in the loop?

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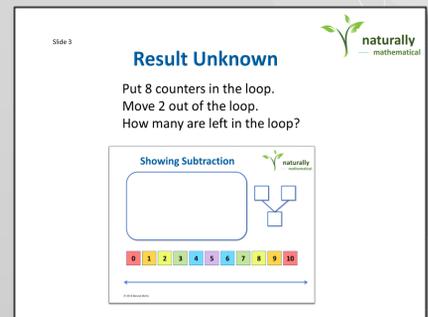
At each stage of marking the mini-chunking diagram ask:
“Where should the 7 go?” etc.

3 Show Slide 7 and read the clues to the students, asking:

“Where on the mini-chunking diagram does the 2 belong?”

“Where on the mini-chunking diagram does the 8 belong?”

“What should we write in the result box?”



The students should also model the information with counters.

4 **The Activity**

Students can use numbered craft sticks (from Lesson 4) to create their own examples with a friend. They should take it turns to choose two sticks (one coloured, one plain) and create the clues so that their partner can show the subtraction with counters and on the mini-chunking diagram. To differentiate allow students who just know the answers or can quickly work them out to forgo the counters and just complete the diagram. They can also be allowed to choose other numbers to write on sticks for their subtractions.

Reflection

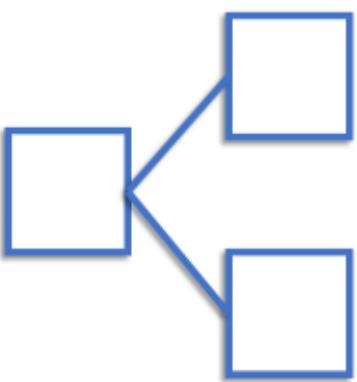
Questions could include:

“How easy was it to make up problems using the craft stick numbers?”

“Was your partner able to follow your clues?”



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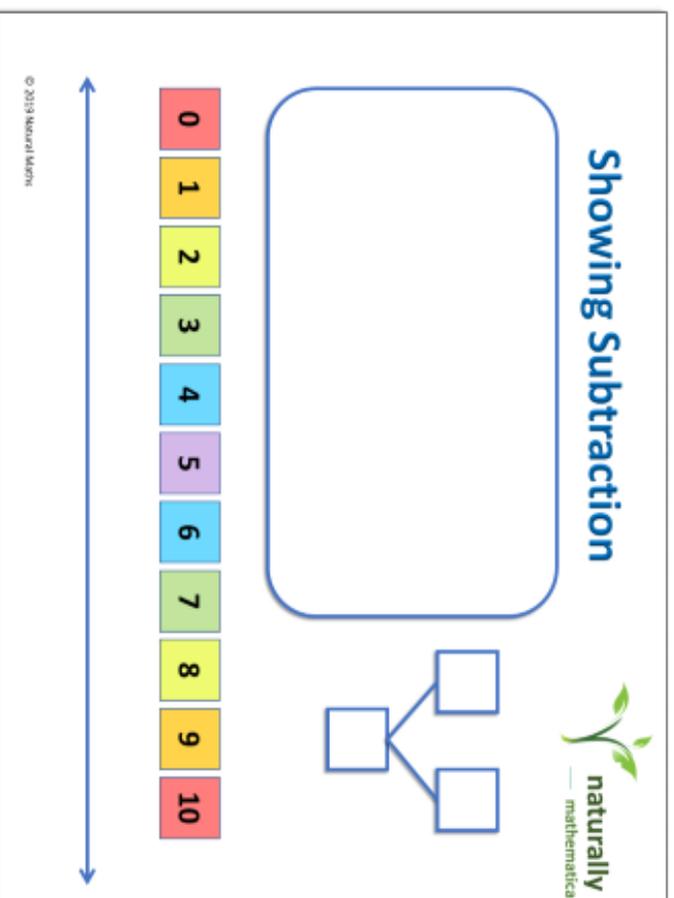
Result Unknown

Put 6 counters in the loop.

Move 3 out of the loop.

How many are left in the loop?

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0 1 2 3 4 5 6 7 8 9 10

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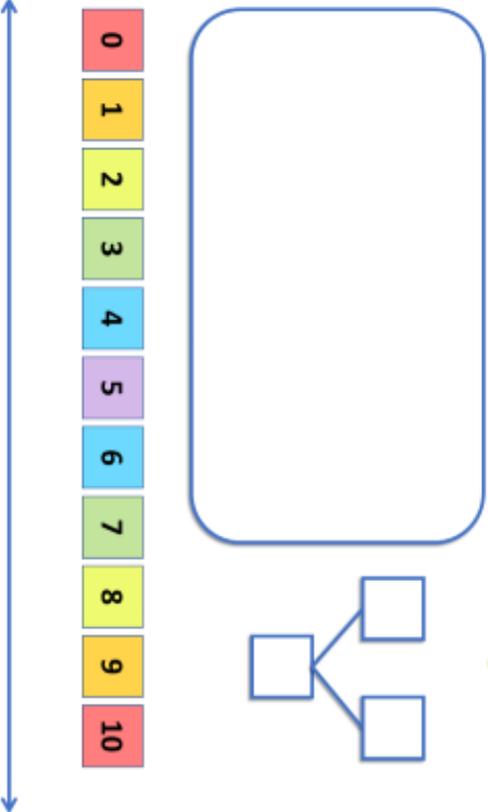
Result Unknown

Put 7 counters in the loop.

Move 3 out of the loop.

How many are left in the loop?

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0 1 2 3 4 5 6 7 8 9 10

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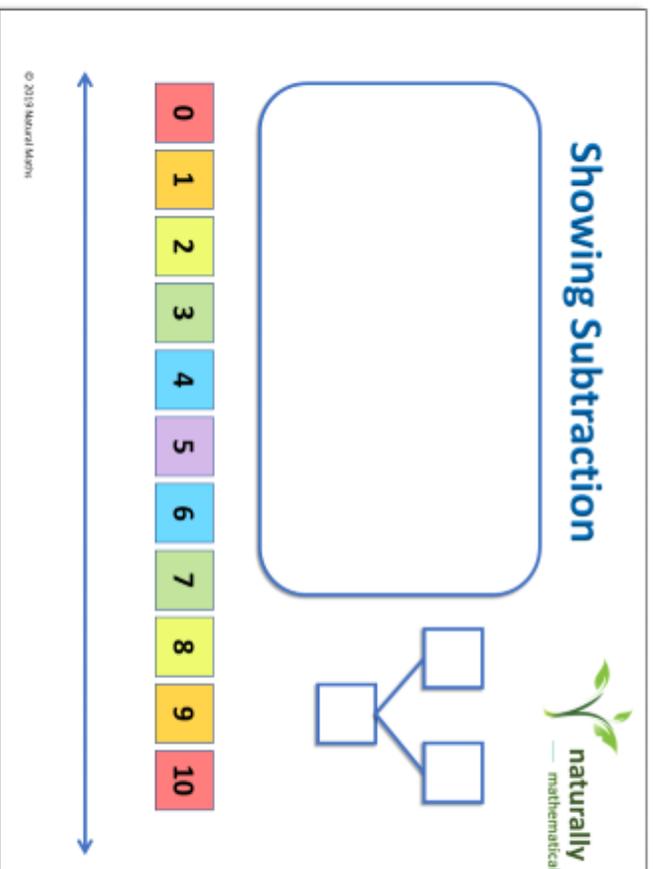
Result Unknown

Put 8 counters in the loop.

Move 2 out of the loop.

How many are left in the loop?

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0 1 2 3 4 5 6 7 8 9 10

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