

# SPIRAL Activity Guide

## Change Schema

Let's use the Change equation to solve our word problem!

First let's write our Change equation. What is our Change equation?

Write  $ST +/ - C = E$ .

Good. We write the Change equation:  $ST$  plus or minus  $C$  equals  $E$ . In a Change problem, there is a starting amount that increases or decreases to a new amount. The Change equation,  $ST$  plus or minus  $C$  equals  $E$ , helps us remember how to write our number sentence for a Change problem.

(Writes.)

Is this a Change increase or Change decrease problem?

Increase/decrease.

Remember, if it's a Change increase, we'll use the plus sign. If it's a Change decrease, we'll use the minus sign.

What should we do next?

Find the starting amount.

Yes! We have to decide the starting amount. Look at the problem. Does it tell us the starting amount?

*If ST is a number:*

Very good.    is the starting amount. The problem gives us  $ST$ . We write    under  $ST$ .

(Writes and checks off the number.)

*If ST is missing:*

That's right. In this problem, we have to figure out the starting amount. The starting amount is missing. We write a blank under  $ST$ .

(Writes.)

Next, we need to find C. We have to decide the change amount. Sometimes the problem tells us the change amount. Other times, the change amount is missing. Look at the problem. Does it tell about a change?

<p><i>If C is a number:</i> Yes! __ is the change. We write __ under C.</p> <p>(Writes and checks off the number.)</p>	<p><i>If C is missing:</i> Yes. We have to find the change. The change is what's missing. We write a blank under C.</p> <p>(Writes.)</p>
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Now we need to find E. We have to decide the end amount. Sometimes the problem tells us the end amount. Other times, the end amount is missing. Look at the problem. Does it tell us the end amount?

<p><i>If E is a number:</i> Yes! __ is the end amount. We write __ under E.</p> <p>(Writes and checks off the number.)</p>	<p><i>If E is missing:</i> Yes. We have to find the end amount. The end amount is what's missing. We write a blank under E.</p> <p>(Writes.)</p>
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**What should we do next?**

Write the signs.

**Good. What math signs do we use to complete our number sentence?**

+/- and =.

(Writes.)

**Does this look like a number sentence we know how to solve?**

Yes!

**Let's read the number sentence together.**

*Read number sentence aloud with student.*

**Let's solve for blank!**

*After you find blank, label the number answer with the word underlined in the problem.*

**The last thing we need to do is check to see if our answer makes sense.  
Does this answer make sense? Why?**

(Student explains.)