

MAKE A CONNECTION		
UNDERSTAND	Definition	When students make a connection, they use their prior knowledge and understanding of mathematics to help them solve a problem. For example, if a student encounters the problem $3 + 7$, they may remember solving the problem $7 + 3$ and recognize that this is the same problem, just written differently.
	When to Teach This Strategy	If you see students who . . . <ul style="list-style-type: none"> recognize mathematical patterns and similarities in simple math problems or recognize mathematical patterns and similarities in complex math problems.
PREPARE	Why We Teach It	When students can <i>make a connection</i> or recall strategies that previously helped them solve a problem, it frees them to work on solving the current problem in an accurate and efficient way.
	Secrets to Success	Student success with this strategy requires two things: <ul style="list-style-type: none"> Students must understand how the problem is organized. They must have some previous experience with a similar problem to make a connection.
TEACH	How We Teach It	Students who are mathematically proficient will naturally begin to recognize mathematical patterns and similarities between both simple and complex problems. This knowledge will support them when working through a problem to find its solution. <ul style="list-style-type: none"> Modeling a think-aloud during the “I Do” focus lesson: Explain to students that they are going to learn about and practice the strategy Make a Connection. This strategy helps us think about the current problem and whether any or all parts of the problem look familiar. (<i>Have I solved another problem similar to this one?</i>) Example: $3 + 7 = \underline{\quad}$ <i>When I look at this problem, I remember that I solved $7 + 3$ and it equaled 10. The commutative property of addition says that the order of the addends doesn’t change the answer, so the answer to this problem must be 10, too.</i> Explain to students that using this strategy gives you a starting point for how you might solve the problem. And, when you can <i>make a connection</i> or recall strategies that previously helped you solve a problem, it frees you to work on solving the current problem in a correct and well-organized way. <ul style="list-style-type: none"> After three or four times of modeling this strategy with several different types of math problems, we provide student practice during the “We Do” focus lesson by using several more math problems. We have students practice answering the questions <i>Have I solved another problem similar to this one? If so, what did I do to find that problem’s solution?</i>
		Suggested Language <ul style="list-style-type: none"> What is the question I need to answer? What do I already know about this problem? What do I still need to find out to solve this problem? Have I solved a problem like this before?
SUPPORT	Instructional Pivots	Help students mark up the problem to highlight the important parts. Also, teach students to pay attention to how the problem is organized; this will help them determine if they’ve seen a problem like this before.
	Partner Strategies	These strategies may provide support before, during, and after teaching this strategy: <ul style="list-style-type: none"> Check for Understanding: Restate the Problem Write an Equation Look for Entry Points to a Solution Use Manipulatives Look for Symbols or Patterns to Help You Break Down the Problem