

# Chapter 2: Addition and Subtraction



# CHAPTER COMPASS

Your Navigation Tool to Identify Key Objectives, Provide Essential Insights and Address Instructional Gaps



## Chapter 2: Addition and Subtraction

 Watch the [video summary here!](#)

### Needed Materials:

- Place value chips
- Printed Teacher Resources

### I Can Statements:


- fluently add and subtract multi-digit numbers using the standard algorithm.
- estimate the answers to addition and subtraction problems using rounding strategies and mental math.
- solve one-step, two-part and two-step word problems involving addition and subtraction.




**Mastery Meter**



### What This Means...

 2A and 2B should be maintenance lessons. Students should know how to add and subtract well by this point. Students are just applying these skills to a greater place value. This means that they will have multiple steps and will need to attend to precision.

 There are 4 lessons in 2C that review addition and subtraction bar models from Grades 2 and 3. However, they extend to multi-step problems. There are videos for each of these problems to support you in drawing and teaching the correct models.

Remember- bar models should show the operation and prove why that operation was chosen.

💡 While not explicitly stated, students should check their answers using rounding strategies from the previous chapter to see if their answer makes sense. Encourage students to do this each time they solve a problem.

## Teaching Suggestions:

📌 Many students may not want to use place value chips in 2A and 2B, especially if they are pretty good at addition and subtraction. Ask students to do the opening problem with manipulatives to prove that they understand the regrouping that takes place. If they can show that, they may not need the manipulatives for the rest of the lessons.

📌 If needed, meet with students in small groups for 2A and 2B to address specific issues. Watch what students do with place value chips and encourage them to use the same language when they write the algorithm. The two should be identical. Watch the two Educator Videos *Developing Addition Algorithms* and *Developing Subtraction Algorithms* to see just how to do this.

📌 This chapter may have students who are ready to move on. Have some additional games students can play who already show fluency with addition and subtraction. This will allow you to work with small groups. You could also use a Performance Task type of project.

📌 As students solve word problems using bar models, it may be helpful to keep the book closed and project the problems using the PowerPoints so they have to draw their own models. Many of them are already drawn in Learn Together and then require students to draw them in Practice On Your Own. Encourage students to model each operation with their drawing to show why it's addition and subtraction.

📌 If you do project the problems, use a shape to cover up the numbers in each problem in the PowerPoint. This will allow students a moment to comprehend the problem before rushing to solve it. You will be surprised how many bar models you can actually draw without the numbers.


📌 If students are hesitant to draw bar models, remind them that they show a deeper understanding of the problem than just getting an answer. The bar models show WHY the operation works and comprehension of the problem by giving a visual. If you feel uncomfortable teaching them, I encourage you to solve each problem before teaching using the videos.


## Related Resources:

📄 Developing Number Sense for Math Fact Fluency [Manual](#) and [Course](#): There are plenty of games and resources to review math facts. For games and strategies check out either the [manual](#) or [course](#) that can be used to backtrack as needed.

[www.mathwithpurpose.com](http://www.mathwithpurpose.com)

All content refers to Primary Mathematics 2022.

 Color Coded Place Value Charts: These are available as a free download to help students organize algorithms by place value. Place them in a page protector to help students use dry erase markers to write.

 [Problem Solving Work Mat](#): The last page in this free download includes a set of questions students can use to work through solving problems. It's a great tool to help them process the problem. Put in a page protector and encourage students to use a dry erase marker to solve.

## Parent Newsletter:


Remember to print and edit the School to Home Letter on EduHub before beginning this chapter. You can add the following blurb and video support with pop-out YouTube links for parents.

? How do you access these resources? [Find out here](#).

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In Chapter 2, your students will learn how to apply place value to addition and subtraction of multi-digit numbers. They will get to show these methods when solving multi-step word problems using bar models to show their thinking. If bar models are new to you, I invite you to check out these videos from author Jessica Kaminski, M.Ed. to see how these help students comprehend word problems.

 2C: PM Exclusive: Solving Multi-Step Word Problems with Addition and Subtraction (THINK pg. 62): <https://www.yout-ube.com/watch?v=CfJlly6nLx4>

 Chapter Practice: PM Exclusive: Evaluating a Multi-Step Word Problem (pg. 68): <https://www.yout-ube.com/watch?v=bUVVuSb--Xg>

 Heuristics: PM Exclusive: Use Before-After Concept: <https://www.yout-ube.com/watch?v=d0i7dBNsRIO>