



Grade 1 Summer Learning

For students who have just completed Grade 1

Because representing numbers to 50 and work with addition and subtraction are so fundamental to continuing work in Grade 2, these two topics are addressed in this review.

The topics of pattern and displaying and interpreting data allow for attention to number, but from a softer perspective, so they are included too.

Length is also a topic built on in subsequent grades and is the most fundamental measurement topic, so it is addressed as well.

Therefore, the Grade 1 topics I decided to focus on to ready students for Grade 2 are the following:

- Representing numbers to 50
- Meanings of addition and subtraction
- Adding and subtracting
- Patterns
- Displaying and interpreting data
- Length and time

Essential Understandings that are the focus of the support:

- WN-1** Every whole number can be represented in many ways. Each way highlights something different about that whole number.
- WN-3** Benchmark numbers can be used to estimate, compare, and give meaning to numbers.
- O-1** Any addition situation involves parts and a whole. The parts are known, but the whole is not known.
- O-2** Any subtraction situation involves parts and a whole. One or more parts and the whole are known, but not all of the parts are known.
- O-5** There are relationships among the four operations. Addition and subtraction are inverse operations.
- O-8** Any computation can describe a variety of situations.
- O-10** There are always multiple strategies for determining the result of a computation, whether it is an estimated or an exact result.
- PA-1** Every pattern involves some kind of repetition.
- PA-3** There is no way to be certain how a pattern continues without a pattern rule.
- PA-5** Many ideas about number, geometry, measurement, and data can be revealed by exploring underlying patterns.
- DA-3** Often a visual data display makes it easier to show data. The type of graph used depends on what we want viewers to see, including frequency (how often something occurs), comparisons between categories, changes over time, and so on.
- DA-4** Interpreting data involves not only reading information but also drawing conclusions, and sometimes it involves using those conclusions to make predictions and inferences.
- M-10** There are ways to compare measurements that do not use units.



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This has been set up for 20 sessions of about 1.5 to 2 hours each:

- Each day includes at least one Number Talk.
- Each day also includes either a Diagnostic Task, which may be followed up with an additional Number Talk or some practice activities, or a MathUP lesson, which is followed up with practice activities.

Number Talks that are particularly recommended are the following:

Grade 1: 4, 7, 10, 11, 14, 23, 25, 36, 46, 50, 54, 55, 56, 57, 61, 66, 68, 69, 74, 75

Grade 2 Diagnostic Tasks to check on prerequisites from Grade 1 come from these topics:

- Representing Whole Numbers
- Meanings of Addition and Subtraction
- Adding and Subtracting Two-Digit Numbers
- Patterns
- Representing Data With Graphs
- Length

On a day that a Diagnostic Task is used (based on the six focus topics), there is a Number Talk followed by the Diagnostic Task. The task should be described as an activity, not a test, to reduce any anxiety students might feel.

It might be appropriate to review some of the vocabulary in the Diagnostic Task before administering it.

If students struggle with the Diagnostic Task, it might be a good idea to go back to the related Grade 1 Diagnostic Tasks and treat them as additional activities. These tasks come from the following topics:

- Representing Numbers to 50
- Meanings of Addition and Subtraction
- Adding and Subtracting
- Patterns
- Displaying and Interpreting Data
- Length and Time

If there are no problems with the Diagnostic Task and you have more time to work with students, you might choose to work on additional Number Talks, or you might choose to use one or more of these Minds On activities from the following topics:

- Representing Numbers to 50
- Meanings of Addition and Subtraction
- Adding and Subtracting
- Patterns
- Displaying and Interpreting Data

The suggested MathUP lessons that follow assume that students are working at the Grade 1 level.

Before beginning a lesson, it would be valuable for the teacher to read the Sum It UP section to review the content being covered and then move on to the three parts of the lesson — Minds On, Action, and Consolidate — followed by the Your Turn Questions and additional suggested practice activities.

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Strand	Topic	Lesson	* Prerequisite Topics
N	Representing Numbers to 50 *	Lesson 2 Representing Teen Numbers Lesson 4 Representing Numbers to 50	Counting
N	Meanings of Addition and Subtraction *	Lesson 1 Adding as Joining Lesson 2 Part-Part-Whole Lesson 3 Subtracting as Taking Away Lesson 4 Subtracting as Comparing	Counting (Lesson 1) Representing Numbers to 50 (Lesson 1)
N	Adding and Subtracting *	Lesson 3 Solving Addition and Subtraction Problems	Representing Numbers to 50 Money Meanings of Addition and Subtraction
A	Patterns	Lesson 1 Repeating Shape Patterns Lesson 2 Repeating Number Patterns	None
D	Displaying and Interpreting Data *	Lesson 1 Concrete Graphs Lesson 2 Pictographs Lesson 3 Reading and Interpreting Data	Collecting and Organizing Data
SS	Length and Time *	Lesson 1 Comparing Lengths Directly Lesson 2 Comparing Lengths Indirectly	Counting