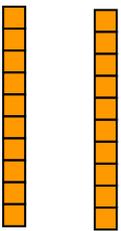


# Let's Get Ready for Grade 2 - Parent Guide

## Lesson 1: Ways to Expand Numbers

**Objective:** Write two digit numbers in expanded form.

**Description:** The children learn how to read and write numbers in standard form and expanded form. Standard form is the traditional way we write numbers. The number 27 is shown below. Expanded Form is a way to write numbers by adding the value of its digits.

Tens	Ones
	

2 tens + 7 ones

Expanded form  $\rightarrow$  20 + 7

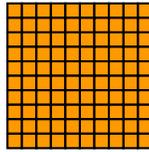
Standard form  $\rightarrow$  27

## Lesson 2: Identifying place value

**Objective:** Identify how many hundreds, tens, and ones there are in a number up to 199.

**Description:** In class, the children use base ten blocks to represent numbers. Interactive base ten blocks can be found at: [https://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/gr3-5/itools\\_intermediate\\_9780547274058\\_/basetenblocks.html](https://www-k6.thinkcentral.com/content/hsp/math/hspmath/na/gr3-5/itools_intermediate_9780547274058_/basetenblocks.html)

100 can be represented with a “flat” square:



10 can be represented with a “long” rod:

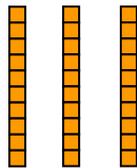
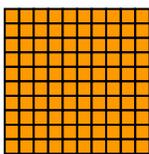


1 can be represented with a “ones cube.”



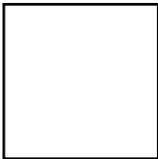
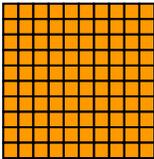
Using these blocks, we can “build” numbers.

134 is represented as...



Hundreds	Tens	Ones
1	3	4

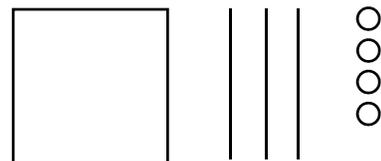
Rather than drawing these base ten blocks (which could be tedious), students can simply...

draw  to show .

draw  to show .

draw  to show .

**So, 134 can be drawn:**



### Lesson 3: Use Place Value to Compare Numbers

**Objective:** Use  $>$ ,  $<$ , or  $=$  to compare numbers.

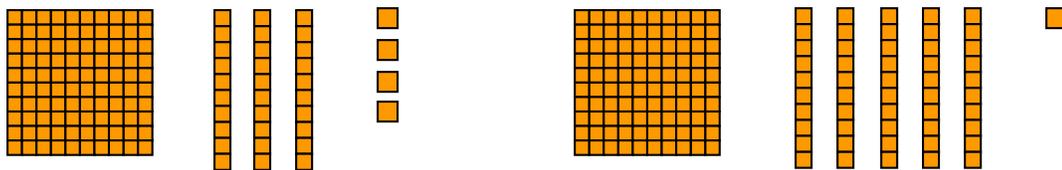
**Description:** The children have used the following symbols to compare numbers.

$>$  (greater than. For example  $120 > 115$ )

$<$  (less than. For example  $120 < 150$ )

$=$  (equal to. For example  $120 = 120$ )

Note: The students may need to compare the pictures to help them compare the numbers. For example:



$$134 < 151$$

Because...

There are the same number of hundreds, but 156 has more tens than 134.

### Lesson 4: Practice Addition Facts

**Objective:** To become fluent in addition facts up to 10.

**Description:** In the beginning of 1<sup>st</sup> grade the students used pictures to help them add numbers within ten. By the end of the grade, they should be able to add these without the pictures. Since this is an early lesson, the pictures are there to help if they need.



$$6 + 1 = \underline{7}$$

### Lesson 5: Addition Function Tables

**Objective:** To complete the addition function table.

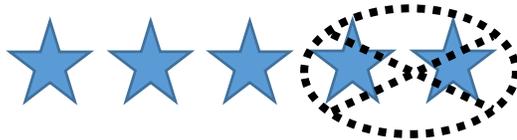
**Description:** A function table (sometimes called input/output tables) encouraged the students to recognize patterns. The “rule” for the function table below is “Add 3”

Add 3	
1	4
2	5
3	6
4	7

### Lesson 6: Practice Subtraction Facts

**Objective:** To become fluent in subtraction facts up to 10.

**Description:** In the beginning of 1<sup>st</sup> grade the students used pictures to help them subtract numbers within ten. By the end of the grade, they should be able to add these without the pictures. Since this is an early lesson, the pictures are there to help if they need.



$$5 - 3 = \underline{2}$$

**Lesson 7: Subtraction Function Tables**

**Objective:** To complete the subtraction function table.

**Description:** A function table (sometimes called input/output tables) encouraged the students to recognize patterns. The “rule” for the function table below is “Subtract 2”

Subtract 2	
6	4
7	5
8	6
9	7

**Lesson 8: Follow the Rule**

**Objective:** Complete the addition or subtraction function table.

**Description:** This lesson combines lesson 4 and 5. Some function tables have “addition” rules while some have “subtraction” rules.

### Lesson 9: Add Three Numbers

**Objective:** Choose the strategy to add three numbers.

**Description:** The children are familiar with three strategies (Make a 10, Add Doubles, and Count on) to add number. Different strategies may be more efficient at different times. The strategies are shown below:

#### Make a 10

$$\begin{array}{r} 7 \\ 3 \\ + 4 \\ \hline 14 \end{array}$$

$7 + 3 = 10$

$10 + 4 = 14$

#### Add Doubles

$$\begin{array}{r} 7 \\ 7 \\ + 1 \\ \hline 15 \end{array}$$

$7 + 7 = 14$

$14 + 1 = 15$

#### Count on

$$\begin{array}{r} 7 \\ 2 \\ + 5 \\ \hline 14 \end{array}$$

$7 + 2 = 9$

$9 + 5 = 14$

More information about these strategies can be found at:

<http://www.teachingintheearlyyears.com/2011/10/mental-math-addition-strategies.html>

### Lesson 10: Add a One-Digit Number to a Two digit number

**Objective:** Find the sum of a one-digit number and a two-digit number.

**Description:** The children know that when we add numbers, we add all of the digits in the ones column. Then we add all of the digits in the tens column. Some key questions to ask are:

- How many ones are there in all?
- How many tens are there in all?

$$\begin{array}{r} 32 \\ + 4 \\ \hline 36 \end{array}$$

3 tens    2 ones

$$\begin{array}{r} 3 \text{ tens} \quad 2 \text{ ones} \\ + \quad \quad \quad 4 \text{ ones} \\ \hline 3 \text{ tens} \quad 6 \text{ ones} \end{array}$$

Tens	Ones
	○
	○
	○
	○
	○

NOTE: There is no carrying (regrouping) in this lesson.

### Lesson 11: Checkpoint 1

**Objective:** To review all of the objectives from lessons 1 - 8.

## Lesson 12: Adding Two-digit Numbers

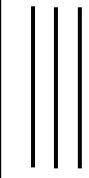
**Objective:** Find the sum of two 2-digit number.

**Description:** The children know that when we add numbers, we add all of the digits in the ones column. Then we add all of the digits in the tens column. Some key questions to ask are:

- How many ones are there in all?
- How many tens are there in all?

$$\begin{array}{r} 32 \\ + 25 \\ \hline 57 \end{array}$$
$$\begin{array}{r} 3 \text{ tens} \quad 2 \text{ ones} \\ + 2 \text{ tens} \quad 5 \text{ ones} \\ \hline 5 \text{ tens} \quad 7 \text{ ones} \end{array}$$

NOTE: There is no carrying (regrouping) in this lesson.

Tens	Ones
	
	

## Lesson 13: Addition word problems

**Objective:** Find the sum of two 2-digit number.

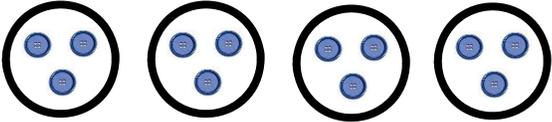
**Description:** In lesson 9, the children added two digit numbers. They added the digits in the ones column. Then they added the digits in the tens column. In this lesson the children will read the situation and write the two numbers that they are adding. They should remember to write a complete sentence to answer the question.

### Lesson 12: Repeated Addition

**Objective:** Use repeated addition to add equal groups.

**Description:** Repeated addition is the foundation of multiplication. In 3<sup>rd</sup> grade the children recognize  $3 \times 4$  as “3 groups of 4 objects.” In this lesson, the children add equal groups. Using objects (like pennies, buttons, etc.) may be helpful.

There are 4 groups. Each group has 3 buttons. How many buttons are there in all?

Number of Equal Groups	Number in Each Group	Picture	How many in all?
4	3		$3 + 3 + 3 + 3 = 12$

### Lesson 15: Checkpoint 2

**Objective:** To review all of the objectives from lessons 10 - 12.

### Lesson 16: Comparing lengths

**Objective:** Measure and compare the length of “ribbons” (rectangles) using paperclips.

**Description:** The children will eventually measure lengths using inches, feet, etc. In this lesson they will measure the lengths of various ribbons using paper clips. The students should be able to complete the sentences, “The blue ribbon is \_\_\_\_\_ paper clips long” and “The \_\_\_\_\_ ribbon is the longest” or “The \_\_\_\_\_ ribbon is the shortest.”

### Lesson 17: Use Non-Standard measurements

**Objective:** Measure the length of objects using paperclips or pencils.

**Description:** The children will eventually measure lengths using inches, feet, etc. In this lesson they will measure a crayon, bookshelf, keyboard, book and chair. The keyboard is about 15 paperclips long.

**Lesson 18: Time to the hour and half hour**

**Objective:** Tell and write time to the hour and half hour using an analog clock.

**Description:** In this lesson, the children write the time to the nearest hour or half hour.

**Lesson 19: Use a Picture Graph**

**Objective:** Read and interpret information displayed on a picture graph.

**Description:** In this lesson the children answer word problems about the information that is displayed on the picture graph.

**Lesson 20: Use a Bar Graph**

**Objective:** Read and interpret information displayed on a bar graph.

**Description:** In this lesson the children answer word problems about the information that is displayed on the bar graph.

**Lesson 21: Take a Survey**

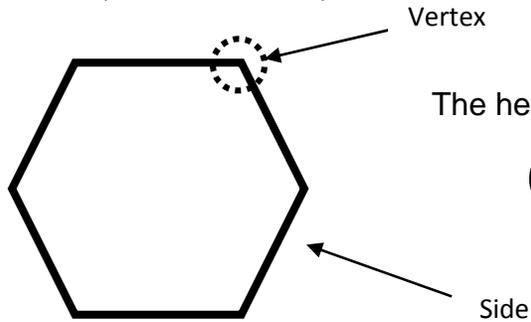
**Objective:** Take a survey and record the results.

**Description:** In this lesson, the children will survey 10 people (friends and family members) about their favorite "lunch." After they conduct their survey, they will answer questions about the results.

## Lesson 22: Identify Shapes

**Objective:** Use attributes to identify two-dimensional shapes.

**Description:** The children should be familiar with circles, triangles, squares, rectangles, trapezoids, and hexagons. This lesson asks the children to determine the shape that has the given numbers of sides or vertices (Plural of vertex).



The hexagon has...

**6 sides and 6 vertices**

## Lesson 23: Equal Shares

**Objective:** Identify halves and fourths in circles and rectangles.

**Description:** Students begin working with fractions in grade three, but in this lesson they begin understanding the meaning of dividing shapes into two or four equal pieces. Since “equal parts” or “equal pieces” is part of the foundation for fractions, in this lesson the children recognize which shapes are split into “equal shares.”

The circle on the left is split into 2 equal shares. Each part is “half.”

