

# Let's Get Ready for Grade 3 - Parent Guide

## Lesson 1: Practice Addition Facts

**Objective:** To find the sum of two one-digit numbers.

**Description:** In the first part of this lesson, the children fill in the blank boxes by finding the sum of the column heading and row heading. In the second part of the lesson, we want the children to quickly and accurately find the sum of two one digit numbers. If they need, they may use the addition chart that they completed on the first page, but ideally, we want them to know these values by memory. Remember, as in the past, addition flash cards are a great way to practice these facts.

## Lesson 2: Estimating numbers to the nearest ten.

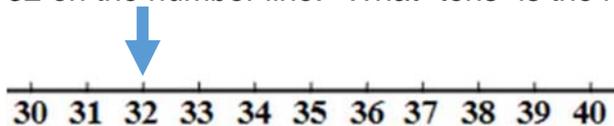
**Objective:** To round two-digit numbers to the nearest ten.

**Description:** Estimating and rounding are arguably the most important mathematical skill. We use it at the supermarket when buying groceries and when telling time. In this lesson the children round numbers to the nearest ten.

\*Note: Some students may want to use the number line to help them round each number, but it is not necessary.

Ex: Round 32 to the nearest ten.

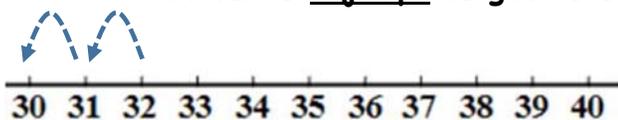
Step 1: Find 32 on the number line. \*What "tens" is the number between?



32 is between 30 and 40.

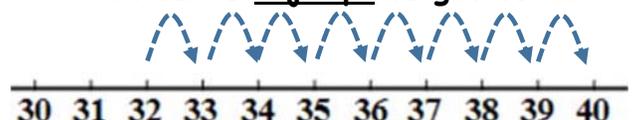
Step 2:  
Count the number of "jumps" to get to 30.

It takes 2 jumps to get to 30.



Step 3:  
Count the number of "jumps" to get to 40.

It takes 8 jumps to get to 40.



Step 4: Compare. It took fewer jumps to get to 30...

So 32 can be rounded to 30.

Remember the rule: If five or higher, round up. Less than five, round down.

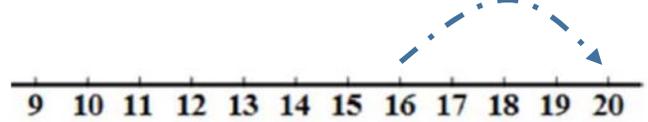
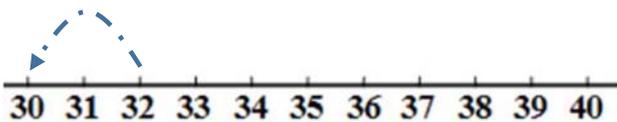
### Lesson 3: Estimating Sums: 2 Digit Addition

**Objective:** Estimate sums of two-digit numbers.

**Description:** Estimating is arguably the most important mathematical skill. We use it at the supermarket when buying groceries and when telling time. In this lesson the children estimate sums by rounding the two addends (the 2 numbers that are being added) to the nearest ten.

\*Note: Some students may want to use the number line to help them round each number, but it is not necessary.

$$32 + 16 =$$



(32 is rounded to 30)

(16 is rounded to 20)

$$\underline{30} + \underline{20} = 50$$

### Lesson 4: Finding exact sums of 2 digit numbers

**Objective:** To accurately add 2-digit numbers.

**Description:** In this lesson the students practice the traditional algorithm for addition. In first grade they began the traditional algorithm but did not do any questions where “carrying” was required. In this lesson the students will be required to “carry”. A sample problem is shown below:

**Add: 64 + 89**

**Step 1:**

**Add the ones.**

$$4 + 9 = 13$$

	Tens	Ones
	6	4
+	8	9
<hr/>		

**Step 2:**

**Regroup.**

$$13 = 1 \text{ ten and } 3 \text{ one}$$

	Tens	Ones
	6	4
	1	
+	8	9
<hr/>		
	3	

**Step 3:**

**Add the tens.**

$$1 + 6 + 8 = 15$$

	Tens	Ones
	6	4
	1	
+	8	9
<hr/>		
	15	3

### Lesson 5: Estimating numbers to the nearest hundred.

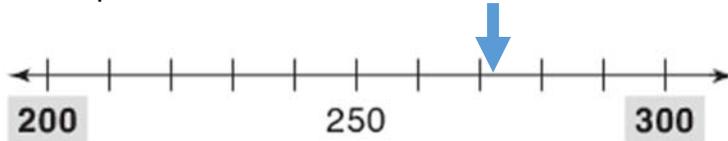
**Objective:** To round three-digit numbers to the nearest hundred.

**Description:** In lesson two the children rounded two-digit numbers to the nearest ten. In this lesson the children will use a similar strategy to round three-digit numbers to the nearest hundred.

\*Note: Some students may want to use the number line to help them round each number, but it is not necessary.

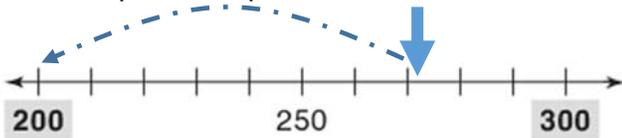
Ex: Round 272 to the nearest hundred.

Step 1: Find 272 on the number line. \*What “hundreds” is the number between?



272 is between 200 and 300.

Step 2: Compare. Is 272 closer to 200, or to 300?



272 is closer to 300, so 272 can be rounded to 300.

### Lesson 6: Estimating Sums: Three-Digit Addition

**Objective:** Estimate sums of three-digit numbers.

**Description:** Like the children did in lesson 2, in this lesson the children estimate sums by rounding the two addends (the 2 numbers that are being added). This time, they round the addends to the nearest hundred.

\*Note: Some students may want to use the number line to help them round each number, but it is not necessary

## Lesson 7: Finding exact sums of 3 digit numbers

**Objective:** To accurately add 3-digit numbers.

**Description:** In lesson 2, the students used the traditional algorithm to add two-digit numbers. In this lesson the students practice the traditional algorithm to add three-digit numbers. A sample problem is shown below:

**Add: 538 + 165**

**Step 1:**

**Add the ones.**

$$8 + 5 = 13$$

	Hundreds	Tens	Ones
	5	3	8
+	1	6	5
<hr/>			

**Step 2:**

**Regroup.**

$$13 = 1 \text{ ten and } 3 \text{ one}$$

	Hundreds	Tens	Ones
	5	3	8
		1	
+	1	6	5
<hr/>			
		3	

**Step 3:**

**Add the tens**

$$1 + 3 + 6 = 10$$

**Regroup.**

$$100 = 1 \text{ hundred and } 0 \text{ tens}$$

	Hundreds	Tens	Ones
	5	3	8
	1	1	
+	1	6	5
<hr/>			
	0	3	

**Step 4:**

**Add the hundreds.**

$$1 + 5 + 1 = 7$$

	Hundreds	Tens	Ones
	5	3	8
	1	1	
+	1	6	5
<hr/>			
	7	0	3

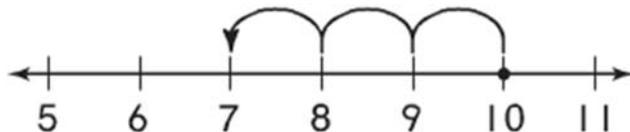
## Lesson 8: Practice Subtraction Facts

**Objective:** To find the difference of two one-digit numbers.

**Description:** By the end of 2<sup>nd</sup> grade the children should be fluent in their addition and subtraction facts. (Flash cards are a great way to practice). In this lesson the children subtract numbers within 10.

If the children need some help subtracting, two common strategies are:

1 - You can **count backwards**.



$$10 - 1 = \underline{\quad 9 \quad}$$

$$10 - 2 = \underline{\quad 8 \quad}$$

$$10 - 3 = \underline{\quad 7 \quad}$$

- You can **think of a related addition fact**.

$$3 + \underline{\quad 7 \quad} = 10$$

$$3 + \underline{\quad \quad} = 10$$

So,  $10 - 3 = \underline{\quad 7 \quad}$

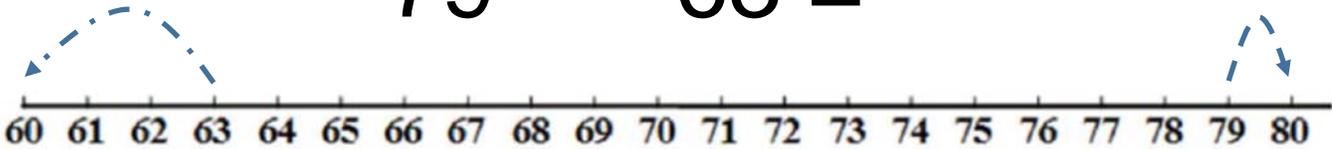
## Lesson 9: Estimating Differences: Two Digit-Subtraction

**Objective:** Estimate differences of two-digit numbers.

**Description:** In this lesson the children round the minuend (the number from which we are subtracting) and subtrahend (the number that we are subtracting) to estimate the difference (the answer when we subtract). \*Note: These terms are not important at this time.

$$\begin{array}{ccc} 8 & - & 3 = 5 \\ \text{Minuend} & & \text{Subtrahend} & & \text{Difference} \end{array}$$

$$79 - 63 =$$



(79 is rounded to 80)

(63 is rounded to 60)

$$\underline{80} - \underline{60} = 20$$

## Lesson 10: Finding exact differences of 2 digit numbers

**Objective:** To accurately subtract 2-digit numbers.

**Description:** In this lesson the students practice the traditional algorithm for subtraction. In first grade they began the traditional algorithm but did not do any questions where “regrouping” (or borrowing) was required. In this lesson the students will be required to “regroup”. A sample problem is shown below:

**Subtract: 73 - 19**

**Step 1:**

Are there enough ones to subtract? NO... So, regroup the 7 tens and 3 ones to 6 tens and 13 ones.

	Tens	Ones
	6	13
-	<del>7</del>	<del>3</del>
	1	9
<hr/>		

**Step 2:**

Subtract the ones.

$$13 - 9 = 4$$

	Tens	Ones
	6	13
-	<del>7</del>	<del>3</del>
	1	9
<hr/>		
		4

**Step 3:**

Subtract the tens.

$$6 - 1 = 5$$

	Tens	Ones
	6	13
-	<del>7</del>	<del>3</del>
	1	9
<hr/>		
	5	4

## Lesson 11: Estimating Differences: Three-Digit Addition

**Objective:** Estimate differences of three-digit numbers.

**Description:** Like the children did in lesson 4, in this lesson the children estimate difference by rounding the minuend and the subtrahend. This time, they round to the nearest hundred.

\*Note: Some students may want to use the number line to help them round each number, but it is not necessary

## Lesson 12: Finding exact sums of 3 digit numbers

**Objective:** To accurately subtract 3-digit numbers.

**Description:** In lesson 10, the students used the traditional algorithm to subtract two-digit numbers. In this lesson the students practice the traditional algorithm to subtract three-digit numbers. A sample problem is shown below:

**Subtract: 315 – 179**

**Step 1:**

Are there enough ones to subtract?

**NO...** So, regroup the 1 ten and 5 ones to 0 tens and 15 ones.

	Hundreds	Tens	Ones
		0	15
	3	<del>1</del>	<del>5</del>
-	1	7	9
<hr/>			

**Step 2:**

Subtract the ones.

$$15 - 9 = 6$$

	Hundreds	Tens	Ones
		0	15
	3	<del>1</del>	<del>5</del>
-	1	7	9
<hr/>			
			6

**Step 3:**

Are there enough tens to subtract?

**NO...** So, regroup the 3 hundreds and 0 tens to 2 hundreds and 10 tens.

Then subtract the tens.

$$10 - 7 = 3$$

	Hundreds	Tens	Ones
		10	
	2	<del>3</del>	15
	<del>3</del>	<del>1</del>	<del>5</del>
-	1	7	9
<hr/>			
		3	6

**Step 4:**

Subtract the hundreds.

$$2 - 1 = 1$$

	Hundreds	Tens	Ones
		10	
	2	<del>3</del>	15
	<del>3</del>	<del>1</del>	<del>5</del>
-	1	7	9
<hr/>			
	1	3	6

### Lesson 13: Order three-digit numbers

**Objective:** Order three-digit numbers from least to greatest.

**Description:** Students are familiar with the symbols used to compare numbers.

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

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

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

### Lesson 14: Equal groups of two

**Objective:** Find the total number of objects in equal groups of two.

**Description:** Repeated addition is the foundation of multiplication. In 3<sup>rd</sup> grade the children will relate  $6 \times 2$  as “6 groups of 2 objects.” In this lesson, the children add (or count) to find the total number of objects. Using objects (like pennies, buttons, etc.) may be helpful.

There are 6 groups. Each group has 2 buttons. How many buttons are there in all?



6 groups of 2 is 12 in all.

### Lesson 15: Equal groups of Five

**Objective:** Find the total number of objects in equal groups of five.

**Description:** Repeated addition is the foundation of multiplication. In 3<sup>rd</sup> grade the children will relate  $3 \times 5$  as “3 groups of 5 objects.” In this lesson, the children add (or count) to find the total number of objects. Using objects (like pennies, buttons, etc.) may be helpful.

There are 3 groups. Each group has 5 buttons. How many buttons are there in all?



3 groups of 5 is 15 in all.

**Lesson 16: Equal groups of Ten**

**Objective:** Find the total number of objects in equal groups of five.

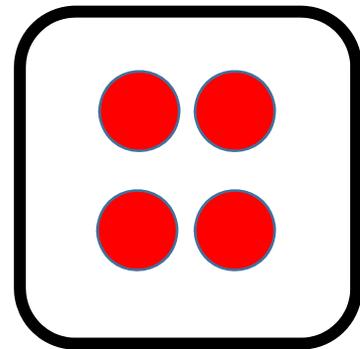
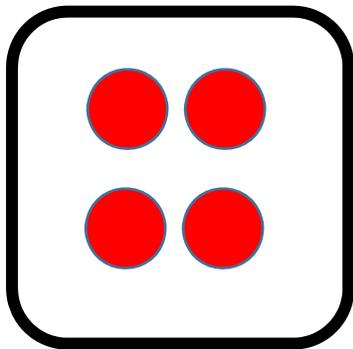
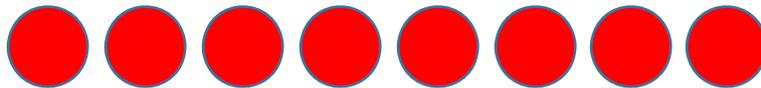
**Description:** Like in the two previous lessons, this lesson helps students build the foundation of multiplication. This lesson has the students find the total number of objects using equal groups of 10.

**Lesson 17: Size of Shares**

**Objective:** Make equal groups and find the number in each group.

**Description:** This lesson sets the foundation for division. The students can use buttons, pennies, chips, blocks, etc. to find equal groups.

Place 8 counters in 2 equal groups.



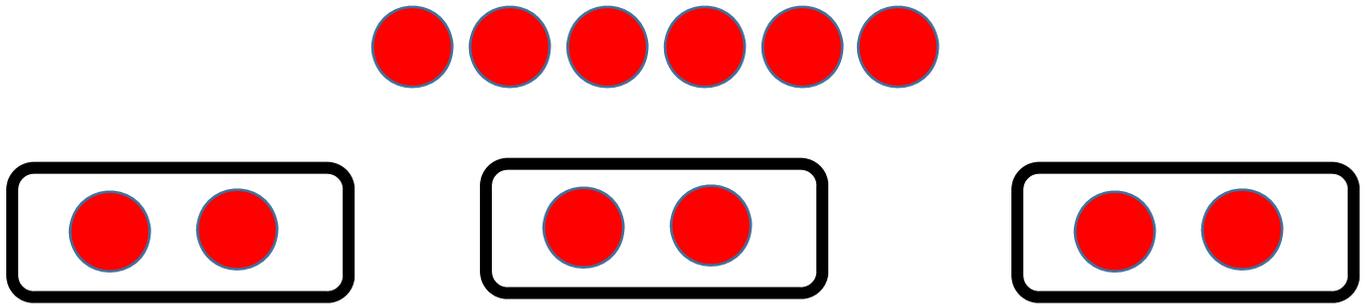
4 counters in each group.

### Lesson 18: Number of Equal Shares

**Objective:** Make equal groups and find the number of groups.

**Description:** The division equation  $10 \div 2$  could be thought of as... (a) Dividing 10 objects into 2 equal groups or (b) Dividing 10 objects into groups of 2. The first way of thinking about this was demonstrated in lesson 10. In this lesson the children discover the latter.

Place 6 counters in groups of 2.



3 groups

### Lesson 19: Hour before and hour after

**Objective:** Use clock numbers to find the time 1 hour before and 1 hour after a given time.

**Description:** Many of us were familiar with telling time on analog clocks because we saw them all over. In the digital age, with cable boxes and smartphones, analog clocks are not as common. But, being able to understand time on an analog clock helped develop our number sense (the meaning and understanding of the value of numbers). In this lesson the children find the time on a clock (to the nearest hour or half hour) and determine the time that is one hour before and one hour after that time.



The time on this clock is...

3:30

1 hour before is... 2:30

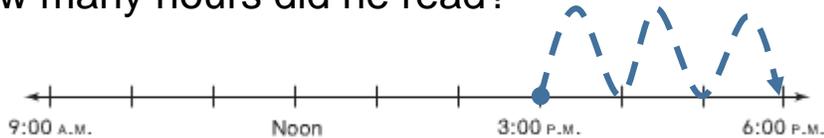
1 hour after is... 4:30

## Lesson 20: Elapse time in hours

**Objective:** Use a time line (a number line with hours) to determine the elapse time in hours.

**Description:** Many children find the “counting on” strategies to be the easiest way to answer these questions. The use of the number line below may also benefit the children.

David began reading his favorite book at 3:00. He stopped reading at 6:00 for dinner. How many hours did he read?



**He read for 3 Hours.**

## Lesson 21: Elapse time in minutes

**Objective:** Use subtraction to find the number of elapsed minutes.

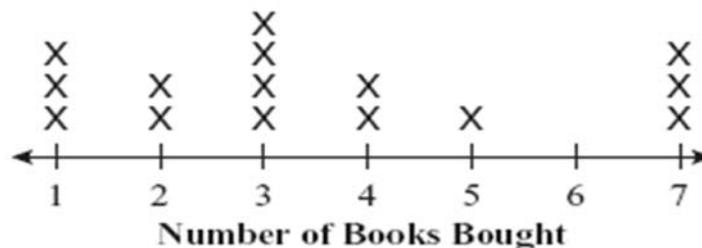
**Description:** In this lesson the children answer word problems where they must subtract to find the number of elapsed minutes.

## Lesson 22: Describe Measurement Data

**Objective:** Interpret measurement data displayed on a line plot.

**Description:** A line plot shows data on a number line. Students are familiar with reading picture graphs or bar graphs. A line plot uses “X”s or “dots” to represent the data. They are then asked to write three sentences about the data.

Each “X” stands for one student in the class who bought books at the book fair.



1. There were 15 students in the class who bought books.
2. Three students bought 7 books.
3. No one bought 6 books.

**Lesson 23: Fraction Models: Thirds and Sixths**

**Objective:** Identify thirds and sixths using fraction models.

**Description:** In grade three the students will do a lot of work understanding the meaning of and working with fractions. The goals of this lesson is for the children to recognize that fractions represent equal parts. \*Note: they do not write the fractions. Instead, they use the terms thirds and sixths.



The rectangle above is divided into six equal parts.

In both of the drawings below, 1 sixths is shaded.



In both of the drawings below, 2 sixths is shaded.



**Lesson 24: Fraction Models: Fourths and Eights**

**Objective:** Identify fourths and eights using fraction models.

**Description:** In grade three the students will do a lot of work understanding the meaning of and working with fractions. This lesson is similar to lesson 23, but the whole is divided into fourths or eights. Again, the goals of this lesson is for the children to recognize that fractions represent equal parts. \*Note: they do not write the fractions. Instead, they use the terms fourths and eights.