

NOT SO WIMPY

UNIT 2:  
PLACE VALUE  
ADDITION &  
SUBTRACTION

4th GRADE  
MATH CURRICULUM

20 DAYS OF MATH LESSON  
PLANS, POWERPOINTS,  
ACTIVITIES, AND  
ASSESSMENT





## UNIT 2: PLACE VALUE, ADDITION, AND SUBTRACTION *at a glance*

Day 1 Number Forms	Day 2 Digit Values	Day 3 Comparing Numbers	Day 4 Rounding	Day 5 Rounding
Day 6 Addition Standard Algorithm	Day 7 Addition Standard Algorithm	Day 8 Addition Give and Take	Day 9 Addition Give and Take	Day 10 Review
Day 11 Subtraction Standard Algorithm	Day 12 Subtraction Standard Algorithm	Day 13 Subtraction Constant Differences	Day 14 Subtraction Constant Differences	Day 15 Estimation
Day 16 Number Patterns	Day 17 Multistep Word Problems	Day 18 Multistep Word Problems	Day 19 PBL	Day 20 Assessment

THIS UNIT COVERS THE FOLLOWING COMMON CORE MATH STANDARDS: 4.NBT.1, 4.NBT.2, 4.NBT.3, 4.NBT.4, 4.OA.3, and 4.OA.5

Notes:

Includes a pacing guide to see your entire week at a glance

**2.7 ADDITION**

**I CAN STATEMENT**  
I can solve addition problems using the standard algorithm.

**MATERIALS**  
2.7 PowerPoint  
2.7 printouts  
place value mat (intervention)

**VOCABULARY**  
addition  
sum  
addend  
standard

**2.4 ROUNDING**

**I CAN STATEMENT**  
I can round numbers to any place value.

**MATERIALS**  
2.4 PowerPoint  
2.4 printouts  
rounding anchor chart  
place value anchor chart (intervention)

**VOCABULARY**  
rounding  
tens  
hundreds  
thousands  
millions

**MINI LESSON**  
Spend the first five minutes of the lesson completing the fact fluency slides. The students will review how to make 10 using addition.  
Using the PPT, complete the warm-up questions with students. Review comparing numbers using  $>$ ,  $<$ , and  $=$ .  
Teach the definition of rounding. Tell students that today we are going to use our knowledge of place value to round numbers.  
Model how to round 1282 to the nearest ten using a vertical number line.  
Continue using the PPT to model how to round numbers to various place values using vertical number lines.

**INTERVENTION**  
Allow students to reference the rounding numbers anchor chart while working. Also allow students to reference the place value anchor chart.

**EXTENSION**  
Have students round numbers without using vertical number lines.

**WRAP UP**  
Allow students time to complete the exit ticket. After everyone is finished, grade the exit ticket together, and allow time for student feedback.

**2.1 PLACE VALUE FORMS**

**I CAN STATEMENT**  
I can use different place value forms to represent numbers.

**MATERIALS**  
2.1 PowerPoint  
2.1 printouts

**VOCABULARY**  
place value  
tens  
ones  
hundreds  
expanded form  
standard form  
hundred thousands  
thousands  
ten thousands  
millions  
word form

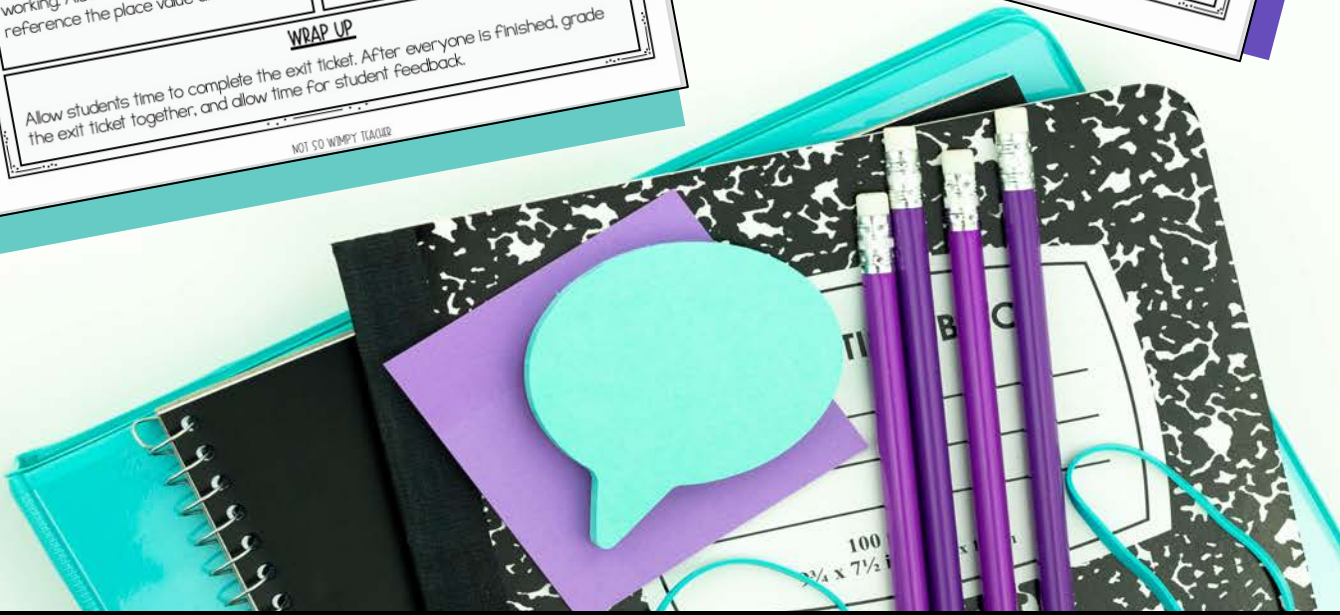
**MINI LESSON**  
Spend the first five minutes of the lesson completing the fact fluency slides. The students will review how to make 10 using addition.  
Using the PPT, complete the warm-up questions with the students.  
Review the place value of each digit to the millions place. Teach the following vocabulary terms: standard form, expanded form, and word form.  
Using the PPT, model the value of a million using place value blocks. Point out the pattern that each place value increases by 10 units.  
Continue using the PPT to model how to show numbers using place value blocks, expanded form, and word form.

**INTERVENTION**  
Have a model of each place value form on the board that students can reference if needed.

**EXTENSION**  
Have students make an anchor chart explaining and modeling each place value form.

**WRAP UP**  
Allow students time to complete the exit ticket. After everyone is finished, grade the exit ticket together, and allow time for student feedback.

NOT SO WINNY TEACHER



INCLUDES WHOLE GROUP LESSON PLANS!



## 2.8 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser  
MATERIALS FOR STUDENTS: whiteboards, markers, erasers

APPROACHING	Model how to add 34 and 58 on your whiteboard using the give and take strategy. Talk through the steps of solving the problem out loud. Discuss why you take 2 From 34 and give 2 to 58. Ask each student to work with you as you solve $59 + 73$ using the give and take strategy. Have the students walk you through how to solve and discuss their thinking out loud. Have each student solve $55 + 89$ on their own and check the answer together.
ON TRACK	Write $238 + 344$ on your whiteboard. Ask students to walk you through how to solve the problem using the give and take strategy. Call on different students for different steps of the problem. Discuss why you would take 2 From 344 and give 2 to 238. Pair the students together to solve $437 + 799$ . Have each partner solve the problem, and then check the answer together. Call on one pair to solve the problem in front of the group after everyone is finished. Repeat with $547 + 789$ .
MASTERS	Ask each student to solve $238 + 344$ on his or her own whiteboard using the give and take strategy. When all students are finished, solve the problem on your whiteboard while discussing your thinking. Allow students to check their own work while you are working. Pair the students together to solve $437 + 799$ . Have each partner solve the problem, and then check the answer together. Call on one pair to solve the problem in front of the group after everyone is finished. Repeat with $8347 + 4689$ .

NOTES:

NOT SO WIMPY TEACHER

## 2.4 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser, place value mat  
MATERIALS FOR STUDENTS: whiteboards, markers, erasers, place value mats

APPROACHING	Begin the lesson by having the students write the number 2439 on their place value mats. Ask students to point to the digit in the hundreds place. Tell them we are going to round that number to the nearest hundred. Ask students to write the number on their place value mat. Ask students to round, determine what number is in the hundreds place. Repeat with 8,390.
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## 2.11 MEET THE TEACHER

MATERIALS FOR TEACHER: whiteboard, marker, eraser, place value mat  
MATERIALS FOR STUDENTS: whiteboard, marker, eraser, place value mat

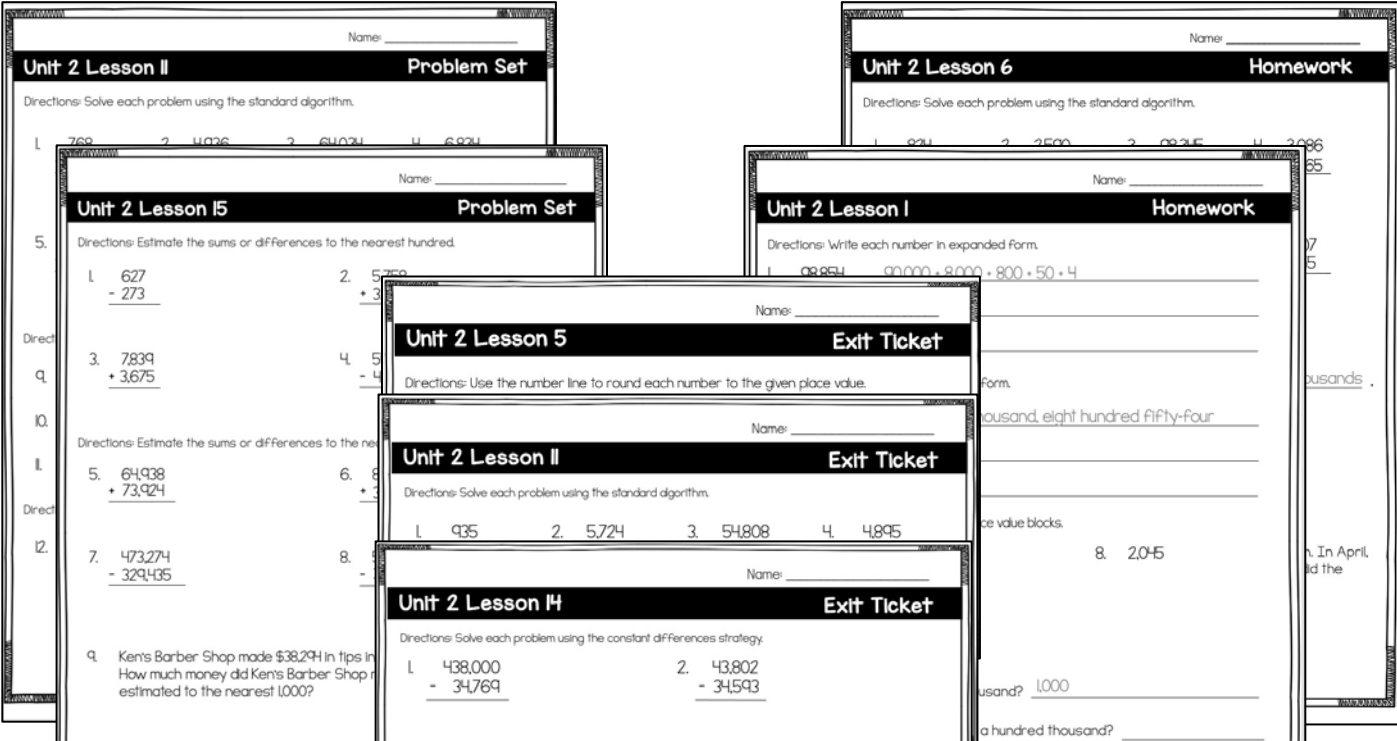
APPROACHING	Model how to subtract $834$ and $793$ on your place value mat. Talk through the steps of solving the problem out loud. Also, talk about needing to regroup when needed. Ask the students to work with you as you solve $932 + 784$ using a place value mat. Have the students walk you through how to solve and discuss their thinking out loud.
ON TRACK	Have each student solve $903 + 486$ on their own place value mat and check the answer together. Write $765 + 284$ on your whiteboard. Ask students to walk you through how to solve the problem. Call on different students for different steps of the problem. Discuss when to regroup and why we need to regroup. Refer to $765$ and $284$ as the minuend and subtrahend, and the answer as the difference to reinforce vocabulary terms.
MASTERS	Pair the students together to solve $843 + 679$ . Have each partner solve the problem and then check their answers together. Call on one pair to solve the problem in front of the group after everyone is finished. Repeat with $943 + 807$ . Ask each student to solve $734 + 288$ on their own whiteboards. When all students are finished, solve the problem on your whiteboard while discussing your thinking. Allow students to check their own work while you are working. Refer to $765$ and $284$ as the minuend and subtrahend, and the answer as the difference to reinforce vocabulary terms. Pair the students together to solve $903 + 677$ . Have each partner solve the problem and then check their answers together. Call on one pair to solve the problem in front of the group after everyone is finished. Repeat with $2,894 + 599$ .

NOTES:

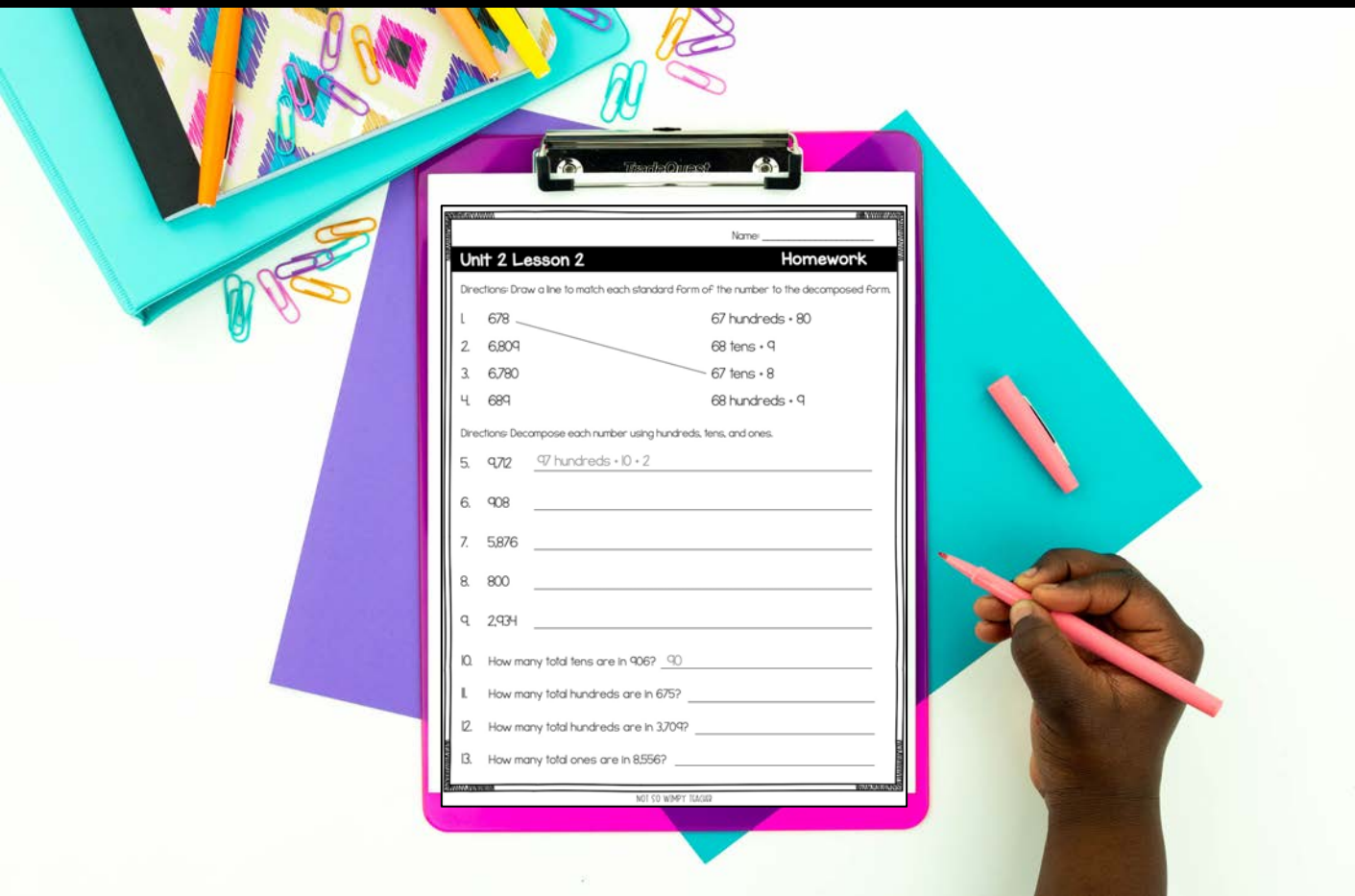
NOT SO WIMPY TEACHER



INCLUDES SMALL GROUP/ MEET WITH TEACHER LESSON PLANS



INCLUDES PROBLEM SETS, HOMEWORK, AND EXIT TICKETS FOR EACH DAY



## 2.1 Place Value Forms

I can use different value forms to rep

## Fact Fluency

# QUICK THINK!

## Place Value Forms

are all the ways we can



## Place Value Forms

Vocabulary:

**Standard form:** the way

## Place Value Forms

is usually written, using only digits

How much is a million?

This is one.

## Exit Ticket

Directions: Write the number in each form.

8,234,912

standard form

expanded form

word form

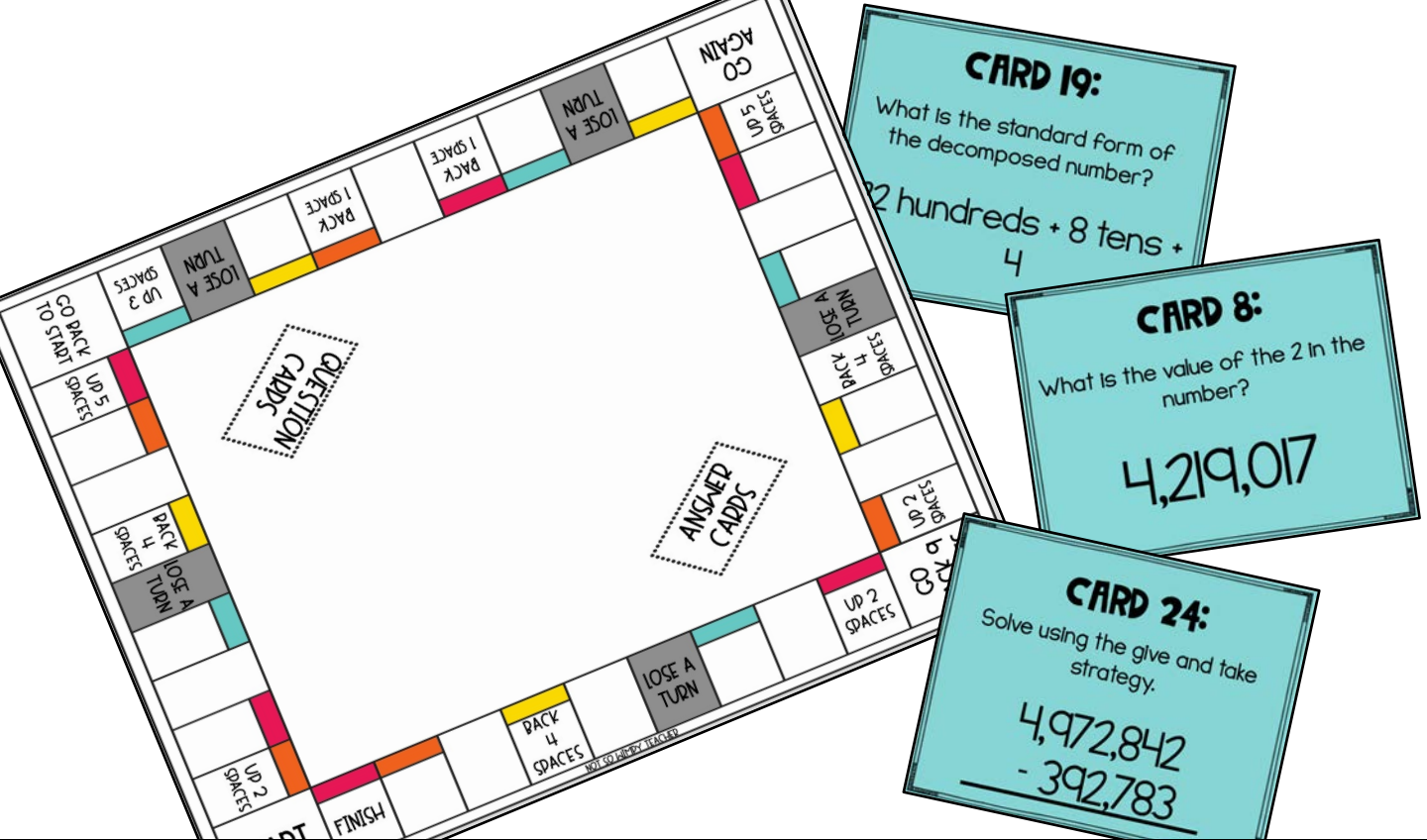
## Centers

	MON.	TUES.	WED.	THURS.
GROUP 1	Meet the Teacher Technology	Independent Math Facts	Meet the Teacher Technology	Independent Math Facts
GROUP 2	Independent Math Facts	Meet the Teacher Technology	Independent Math Facts	Meet the Teacher Technology
GROUP 3	Technology Meet the Teacher	Math Facts Independent	Technology Meet the Teacher	Math Facts Independent
GROUP 4	Math Facts Independent	Technology Meet the Teacher	Math Facts Independent	Technology Meet the Teacher

NOT SO WIMPY TEACHER

INCLUDES DAILY POWERPOINTS FOR TEACHING MATH SKILLS.





games and scoots are included for end of the unit review

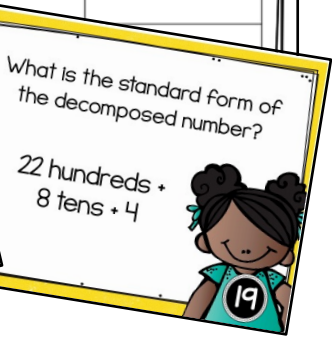
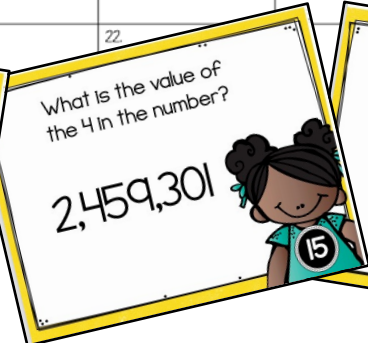
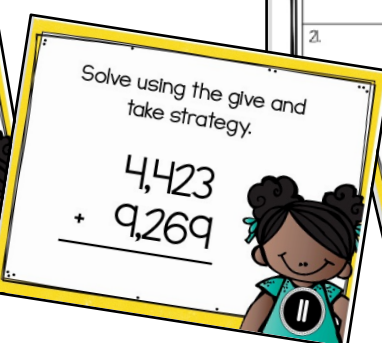
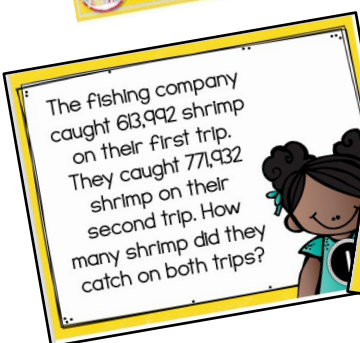


Name: \_\_\_\_\_

**PLACE VALUE & ADDITION**

Directions: Read each card and record your answer in the box.

1.	2.	3.	4.
5.	6.	7.	8.
9.	10.	11.	12.
13.	14.	15.	16.
17.	18.	19.	20.
21.	22.		



# INCLUDES PRE- AND POST-ASSESSMENTS, ANSWER KEYS AND A RUBRIC FOR TRACKING STUDENT PROGRESS

**Unit 2**

Directions: Use the number line to round each number.

13. Round to the nearest 10.  
5,863 ≈ \_\_\_\_\_

15. Round to the nearest 1,000.  
67,294 ≈ \_\_\_\_\_

**Unit 2**

Directions: Solve each problem using the standard algorithm.

18. 
$$\begin{array}{r} 6,894,609 \\ + 3,795,097 \\ \hline \end{array}$$

19. 
$$\begin{array}{r} 5,6892 \\ + 45,806 \\ \hline \end{array}$$

21. 
$$\begin{array}{r} 728,329 \\ - 443,283 \\ \hline \end{array}$$

22. 
$$\begin{array}{r} 8,382,492 \\ - 6,17,377 \\ \hline \end{array}$$

**Unit 2 Assessment**

Name: \_\_\_\_\_

Directions: Write each number in expanded form and word form.

1. 7832,096

Expanded form: \_\_\_\_\_

Word form: \_\_\_\_\_

Directions: Write the answer to each question on the line.

2. How many hundred thousands are in a million? \_\_\_\_\_

**Unit 2**

Directions: Use the number line to round each number.

13. Round to the nearest 10.  
5,863 ≈ 5,860

15. Round to the nearest 1,000.  
67,294 ≈ 67,000

17. When rounded to the nearest million, which number does not apply?  
Circle all that apply.

a. 6,783,096

b. 5,834,895

c. 6,238,853

d. 5,453,907

Skill	Number Forms	Place value	Decomposing numbers	Comparing numbers	Rounding	Addition with the standard algorithm	Subtraction with the standard algorithm
Student	1	2-5	6-8	9-11	12-17	18-20	21-23
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3
	___/2	___/4	___/3	___/4	___/5	___/3	___/3

**Assessment Answer Key**

Name: \_\_\_\_\_

Directions: Solve each problem using the standard algorithm.

18. 
$$\begin{array}{r} 6,894,609 \\ + 3,795,097 \\ \hline 10,689,706 \end{array}$$

19. 
$$\begin{array}{r} 5,6892 \\ + 45,806 \\ \hline 51,4952 \end{array}$$

21. 
$$\begin{array}{r} 728,329 \\ - 443,283 \\ \hline 285,046 \end{array}$$

22. 
$$\begin{array}{r} 8,382,492 \\ - 6,17,377 \\ \hline 2,265,115 \end{array}$$

25. 
$$\begin{array}{r} 3,203 - 1 \\ + 6,389 + 1 \\ \hline 9,620 \end{array}$$

26. 
$$\begin{array}{r} 7,000 - 1 \\ - 5,785 - 1 \\ \hline 1,215 \end{array}$$

27. 
$$\begin{array}{r} 3,802 - 2 \\ - 2,845 - 2 \\ \hline 957 \end{array}$$

28. 
$$\begin{array}{r} 3,420,97 \\ + 432,895 \\ \hline 3,853,865 \end{array}$$

29. 
$$\begin{array}{r} 823,274 \\ - 342,462 \\ \hline 480,812 \end{array}$$

Directions: Solve each problem using constant differences.

26. 
$$\begin{array}{r} 7,000 - 1 \\ - 5,785 - 1 \\ \hline 1,215 \end{array}$$

27. 
$$\begin{array}{r} 3,802 - 2 \\ - 2,845 - 2 \\ \hline 957 \end{array}$$





# PLACE VALUES

6,780

millions  
thousands  
hundred thousands

# ROUNDING

Rounding is when we make a number simpler but keep it close in value.

400,000  
340,000  
300,000

$$340,000 \approx 300,000$$

NOT SO WIMPY TEACHER

FOR USE WITH LESSONS 24-25, 26

VOCABULARY CARDS AND ANCHOR CHARTS  
FOR TEACHER AND STUDENTS TO  
REFERENCE THROUGHOUT THE UNIT

# PLACE VALUE

hundreds	tens	ones
3	4	0

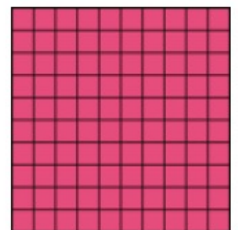
# WORD FORM

when numbers are written

three  
hundred  
forty-

# HUNDREDS

100 single units  
grouped together



NOT SO WIMPY TEACHER

# PBL ACTIVITY

## ADDITION, SUBTRACTION, & PLACE VALUE

A SPACE CAMP THEMED PROJECT-BASED LEARNING ACTIVITY

### COMMENCING ROCKET LAUNCH

Your Space Camp crew has built and launched their rockets. You tried to record all the launch data, but some of it got mixed up! Use the clues on the next page and the mixed-up data box to fill in the data chart.

CREW MEMBER	DISTANCE LAUNCHED
Gabe	

**MIXED-UP DATA**

- 19 feet
- 17 feet
- 12 feet
- 216 inches
- 227 inches

### FLIGHT TEAM

It is now time to put together a flight team for a new space mission! Read the information cards below about the possible members of your flight team.

 <b>JAMIE LEWIS</b> CAPTAIN Born: 1974 Astronaut since: 2001 Number of Flights: 4 Miles Flown in Space: 6,352	 <b>JOSH CHEVY</b> PILOT Born: 1980 Astronaut since: 2010 Number of Flights: 2 Miles Flown in Space: 2,921	 <b>KRIS LOWE</b> PILOT Born: 1988 Astronaut since: 2016 Number of Flights: 2 Miles Flown in Space: 3,362
 <b>JENN APPLE</b> PILOT Born: 1988 Astronaut since: 2016 Number of Flights: 2 Miles Flown in Space: 3,362	 <b>JONAH JAY</b> SPECIALIST Born: 1972 Astronaut since: 1999 Number of Flights: 6 Miles Flown in Space: 8,321	

### PLANETARY GENIUS

Your first assignment at Space Camp is to calculate how far away the planets are from each other. Use the chart below to answer the questions on the next page.

FROM PLANET	TO PLANET	DISTANCE (IN MILES)
Mercury	Venus	
Venus	Earth	31,248,757
Earth	Mars	25,724,767
Mars	Jupiter	48,678,219
Jupiter	Saturn	342,012,346
Saturn	Uranus	401,592,178
Uranus	Neptune	900,377,530
		1,011,297,430



a project-based learning for students to review the standards in a fun and engaging way

### SPACE CAMP

The time for Space Camp has arrived! Prepare to be an astronaut by choosing your weekend of camp, dissecting planetary

### PLANETARY GENIUS

How far away are the planets from each other? Use the chart on the previous page to answer the following questions.

1. Is the distance between Earth and Mars greater or less than the distance between Earth and Jupiter?
2. Round the distance between Earth and Mars to the nearest ten thousand.
3. Which planet is the furthest away from Earth?

### COMMENCING ROCKET LAUNCH

Use the clues below and the mixed-up data to correctly place the data into the Rocket Launch Data Chart.

1. Gabe's rocket, measured in feet, flew the shortest distance.
2. Eric's rocket flew 7 more feet than Gabe's rocket.
3. When Leena added her distance to Eric's distance, the total distance their rockets flew was 36 feet.
4. Jazzy converted her distance into inches. Her rocket flew  $200 + 10 + 6$  inches.
5. Christine also converted her distance into inches. At first, she said it flew as far as Jazzy's rocket plus another 12 inches. She then realized that she had measured incorrectly, and it only flew 11 inches farther than Jazzy's rocket.

### 3...2...1...BLAST OFF!

Space Camp dates are filling up fast! Which weekend will you be able to attend?

WEEKEND DATES	MAXIMUM ATTENDANCE
June 10-12	276
June 17-19	343
June 24-26	450
July 1-3	535
July 10-11	204

Answer the following questions. Cross out the weekend dates that match your answers. The one date remaining is the weekend you will get to attend Space Camp!

1. The value of the 4 in 147 is ten times less than the value of the 4 in this weekend's attendance.
2. The maximum attendance for the weekend is less than two hundred thirty-seven.
3. Solve for  $a$ .  $a + 21 = 560$       $a =$  \_\_\_\_\_
4. Solve:  $4.32 - 4.036$
5. Which weekend will you be able to attend Space Camp?



## 2.3 COMPARING NUMBERS

### I CAN STATEMENT

I can compare numbers using  $>$ ,  $<$ , and  $=$ .

### MATERIALS

2.3 PowerPoint  
2.3 printouts  
place value anchor chart  
comparing numbers anchor chart (intervention)

### VOCABULARY

greater than ( $>$ )  
less than ( $<$ )  
equal to ( $=$ )  
compare

### MINI LESSON

Spend the first five minutes of the lesson completing the fact fluency slides. The students will review how to make 10 using addition.

Using the PPT, complete the warm-up questions with students. Review identifying the place value of a digit in a number and how to place commas in a number.

Teach the following vocabulary terms: greater than, less than, equal to, and compare. Tell the students that today we are going to use these terms to compare numbers.

Model how to compare numbers by determining the greatest place value in each number. Model how to write comparison statements using  $>$ ,  $<$ , and  $=$ .

### INTERVENTION

Allow students to reference the place value anchor chart while working. Also allow students to reference the comparing numbers anchor chart.

### EXTENSION

Ask students to explain why 1 million is greater than 900,000 even though 1 is less than 9.

### WRAP UP

Allow students time to complete the exit ticket. After everyone is finished, grade the exit ticket together, and allow time for student feedback.

## Unit 2 Lesson 3

Directions: Write the value of each underlined digit.

- 6,753,097 \_\_\_\_\_
- 865 \_\_\_\_\_
- 8,089 \_\_\_\_\_
- 8349 \_\_\_\_\_
- 872,007 \_\_\_\_\_
- 9,26 \_\_\_\_\_
- 2876 \_\_\_\_\_
- 88 \_\_\_\_\_

Directions: Compare each set of numbers using  $>$ ,  $<$  or  $=$ .

- 9,006 \_\_\_\_\_ 907
- 75,894 \_\_\_\_\_ 75,895
- 698 \_\_\_\_\_ 697
- 45,853 \_\_\_\_\_ 45,853
- 15 hundreds + 80 + 9 \_\_\_\_\_ 150 tens + 8
- 23 tens + 8 \_\_\_\_\_ 238 ones

## ROUNDING

**6** Rounding is when we make a number simpler but keep it close in value.

400,000

340,000

$340,000 \approx$

## PLACE VALUE

the value of each digit

hundreds	tens
3	2

## WORD FORM

when numbers are written

three hundred forty-

## HUNDREDS

### Place Value Mat

Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

### COMPARING NUMBERS

$>$ ,  $<$ ,  $=$

728 \_\_\_\_\_ 1,728

3,924,284 \_\_\_\_\_ 829,920

503 \_\_\_\_\_ 509

82 hundreds \_\_\_\_\_ 8,200

### 100s Chart

3	4	5	6	7	8	9	10
13	14	15	16	17	18	19	20
23	24	25	26	27	28	29	30
33	34	35	36	37	38	39	40
43	44	45	46	47	48	49	50
53	54	55	56	57	58	59	60
63	64	65	66	67	68	69	70
73	74	75	76	77	78	79	80
83	84	85	86	87	88	89	90
93	94	95	96	97	98	99	100

each day of math is fully planned for you with all the tools you'll need!