

Adding \& Subtracting
Decimal Numbers

## Unit Overview

$\left.\begin{array}{|c|c|c|c|c|}\hline \begin{array}{c}\text { Lesson 1 } \\ \text { How do we } \\ \text { estimate sums } \\ \text { and differences } \\ \text { in decimals? }\end{array} & \begin{array}{c}\text { Lesson 2 } \\ \text { What strategies } \\ \text { can we use to } \\ \text { add decimals? } \\ \text { (place value) }\end{array} & \begin{array}{c}\text { Lesson 3 } \\ \text { What strategies } \\ \text { can we use to } \\ \text { add decimals? } \\ \text { (split) }\end{array} & \begin{array}{c}\text { Lesson 4 } \\ \text { What strategies } \\ \text { can we use to } \\ \text { add decimals? } \\ \text { (jump) }\end{array} & \begin{array}{c}\text { Lesson 5 } \\ \text { What }\end{array} \\ \text { pg. } 18\end{array} \quad \begin{array}{c}\text { pg. } 27 \\ \text { strategies can } \\ \text { we use to add } \\ \text { decimals? } \\ \text { (shortcut) }\end{array}\right]$

Pretest pgs. 6-9 Post test pgs. 140-143

## Standards Addressed

## 5.NBT.B. 7

Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

## Vocabulary Covered

Decimal
Subtrahend Identity Property Shortcut Strategy Split Strategy Tenth

Algorithm
Decompose
Commutative Property
Number Line
Estimate
Hundredth

Minuend
Expanded Form
Associative Property Jump Strategy
Reasonable
Thousandth
lessen 8: What strategies can we use to subtract decimals?

I Can Statement<br>I can use the split strategy to subtract decimals.

Vocabulary<br>None new (reviewing decompose, expanded form, subtrahend, minuend)

## Materials

Split Strategy Subtraction Anchor Chart; Active Engagement INB Piece; Squirrel Game; Squirrel Sheet (Optional Practice)

## Mini-lesson

Yesterday we focused on using base-ten blocks to subtract decimals with the modeling strategy. Today we are basically doing the same thing, but without the base ten blocks. Instead, We are going to take the two decimal numbers, in this case our minuend and subtrahend, and split them up by their place values, or extend them. If you remember, we used this strategy when we were adding decimals. It was called the split strategy. After we decompose our numbers, we subtract them. For example, let's say that I want to subtro the numbers 7.6-4.3. First, I would break up my minuend by place value so it is $n=7$ and and then, I would break up my subtrahend so it is 4 and 0.3 . Next inm ing t
difference between the tenths place and then the ones. So, the
is 4
 and 0.3 is 3.3. Just like before, 1 am going to dou answer is reasonable because tha wi good the ticid do. Now,s mes need to trade. (Demonstrate how , ulve a su rctic orob wi ine where y would need to trade. See the gy btraction hor hart f guid rake sure to think aloud as you thro $h$ the obl r-by-st

## Act :Ens jet

Now ys girl wa sut atry. Remember, it is just like the split strategy with addit cept no jou ;ubiracting and borrowing. I have an interactive notebook piece that $y$ will need t ut out and glue into your notebook. Then you will complete the problem undern th its flap. When you are finished, we will go over the answer. (Pass out the Active Engagement INB Piece and give students a few minutes to start it. Take note of any students who are struggling. After a few minutes call on students to share how they arrived at their answer.)

## Link and Independent Practice

Today you are going to continue practicing the split strategy with subtracting decimals. You and a partner will take turns drawing a card and solving the problem. When you solve the problem, you will look on the sheet and find the acorn with that answer. If it is there and not colored in, you get to color it in. If it is already colored in with your partner's color or it's not there, your turn is over. Whoever colors 4 acorns in a row wins! When you are finished with the squirrel game, you will put it away and complete this sheet independently.

## Intervention

Have students create a number with base ten blocks and find 3 other ways to represent it by breaking it up. Consider starting with smaller, whole numbers if needed.

## Extension

Ask students to explain how to solve these problems in written form, as if they were explaining it to a younger child.
Closing
Have students think-pair-share a time when this strategy could be useful in real life.



Directions:
I.) First cut out the interactive notebook piece by cutting along the solid black lines and folding on the dotted line.
2.) Glue down the back of the left side strip (where the pencil is) into your notebook.
3.) Under each flap complete the problem on it. Remember to split the numbers up and subtract each place separately. You may noed to row num
4.) fini $3 d$, ritt nt is ron Directions:
I.) First cut out the interactive notebook piece by cutting along the solid black lines and folding on the dotted line.
2.) Glue down the back of the left side strip (where the pencil is) into your notebook.
3.) Under each flap complete the problem on it. Remember to split the numbers up and subtract each place separately. You may need to borrow numbers.
4.) When finished, write the answer on the front.


Directions:
I.) First cut out the interactive notebook piece by cutting along the solid black lines and folding on the dotted line.
2.) Glue down the back of the left side strip (where the pencil is) into your notebook.
3.) Under each flap complete the problem on it. Remember to split the numbers up and subtract each place separately. You may noed to row num
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3.) Under each flap complete the problem on it. Remember to split the numbers up and subtract each place separately. You may need to borrow numbers.
4.) When finished, write the answer on the front.



## Directions:

1.) Decide who is going first.
2.) A player will draw a card and solve the problem on it using the split strategy.
3.) Once the problem has been solved, that player will look for the answer in a nut below. If it is available, the player will mark it. If it is not, their turn is over. It is the next player's turn. Repeat steps two and three. The winner is the first person to get 4 nuts in a row vertically, horizontally, or diagonally.


$\qquad$
Directions: Solve each problem below using the split strategy. Remember to show your work and to check it by estimating when finished.

Going NUTS for

Q: How do you catch a squirrel?


Name
Directions: Solve each problem below using the split strategy. Remember to show your work and to check it by estimating when finished.

Q: How do you catch a squirrel?






## CATCH A WAVE

## DiRections

1.) On your turn, solve the problem in the start square. Show your work on another sheet of paper. Your partner should use a calculator to confirm if it is correct.
2.) If it's correct, spin the spinner to decide how many spaces forward you may move. Follow the arrows and move that number of boxes. If your answer was incorrect, do not move your marker. The first player to reach the island is the winner.


# CATCH A WAVE 

## DiRECTIONS

## KEY

1.) On your turn, solve the problem in the start square. Show your work on another sheet of paper. Your partner should use a calculator to confirm if it is correct.
2.) If it's correct, spin the spinner to decide how many spaces forward you may move. Follow the arrows and move that number of boxes. If your answer was incorrect, do not move your marker. The first player to reach the island is the winner.



Name $\qquad$



Directions: Solve each problem below using the traditional subtraction algorithm. Remember to show your work and check it when you are finished. Then solve the riddle below!
(D)
$6.3-3.45$
(0) $11.54-8.56$
(L) $8.67-4.89$
(G) $6.2-2.68$
(E) $8-3.25$
(S) $9.08-5$
(A) $8.4-4.66$
(0) $5.59-2.27$
(N) 7.89-5.33
(T) 8.32-6.21

Q: what did the beach say to the wave?

4.08
4.7
4.75
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Name Key


Directions: Solve each problem below using the traditional subtraction algorithm. Remember to show your work and check it when you are finished. Then solve the riddle below!
(D) $6.3-3.45$
(0) $11.54-8.56$
2.98
(L) $8.67-4.89$
2.85
(G) $6.2-2.68$
(E) $8-3.25$
3.52
(N). 32
1.22
(A) $8.4-4.66$
(0) $5.59-2.27$
(N) $7.89-5.33$
2.56
(S) $9.08-5$
3.69
4.08
3.74
3.32
(T) $8.32-6.21$

Q: What did the beach say to the wave?
$\boldsymbol{A}: \frac{\mathrm{L}}{3.78} \frac{\mathrm{O}}{3.32} \frac{\mathrm{~N}}{1.22} \frac{\mathrm{G}}{3.52} \quad \frac{\mathrm{~T}}{2.11} \frac{\mathrm{I}}{3.69} \frac{\mathrm{D}}{2.85} \frac{\mathrm{E}}{0.94} \quad \frac{\mathrm{~N}}{2.56} \frac{\mathrm{O}}{2.98} \quad \frac{\mathrm{~S}}{4.08} \frac{\mathrm{E}}{4.75} \frac{\mathrm{~A}}{3.74}$ !

