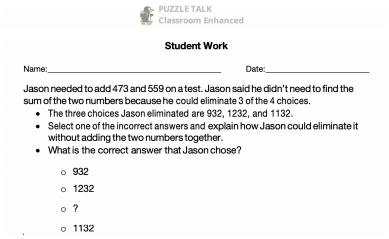
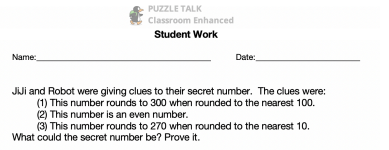
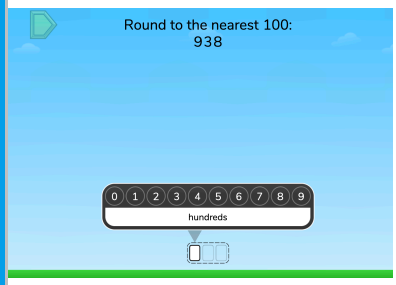
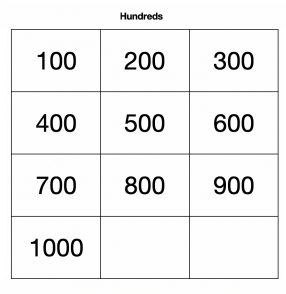
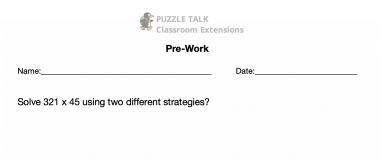
PUZZLE TALK Extensions

Third Grade | **Rounding Three-Digit Numbers** | **Number Funnels Highest Place**

These activities extend the puzzles and the concepts learned in the puzzles throughout the week. The activities might be tasks, word problems, journal writing activities, or hands-on activities designed to deepen student understanding and help students make connections.

Some of the activities listed below work well in a remote environment and can be easily added to your virtual classroom. The activities that can be used remotely are designated as such.

		• Pose the following problem to students: ○ Jason needed to add 473 and 559 on a test. Jason said he didn't need to find the sum of the two numbers because he could eliminate 3 of the 4 choices. These are the three choices Jason eliminated. Select one of the incorrect answers and explain how Jason could eliminate it without adding the two numbers together. What is the correct answer that Jason chose? o 932 o 1232 o ? o 1132 ***(Can be done remotely)***
		• Pose the following problem to students: ○ JiJi and Robot were giving clues to their secret number. The clues were (1) This number rounds to 300 when rounded to the nearest 100. (2) This number is an even number. (3) This number rounds to 270 when rounded to the nearest 10. What could the secret number be? Prove it. ***(Can be done remotely)***
		• Give students whiteboards and dry erase markers. Display the first puzzle in Level 5. • Ask students to follow the directions on the puzzle and write the answers on your whiteboard. Share students' answers and strategies for rounding. • Solve the puzzle, but pause before JiJi crosses the screen. Ask students to now round the number shown to the nearest 10 or 100 (whichever wasn't asked in the puzzle). • Compare the process for rounding to the nearest 10 and nearest 100. • Continue with other puzzles in Level 5.
		• Give students a set of "Hundreds Cards". Explain to students that you are going to display a number that needs to be rounded to the nearest 100. When the number is displayed, students need to first pull out and hold up the two hundreds that number is in between. • Then, after you decide as a class which two hundreds it is in between, students should then keep holding up the answer. For example, write the number 387. • Students should hold up 300 and 400 and then the answer of 400. • Encourage students to explain their answer using number relationships. (e.g., 387 is 13 away from 400 but 87 away from 300.) Repeat with other numbers.
		• **If you are using Puzzle Talks as part of your remote learning plan,** it is important to think about how to maximize the learning in the virtual environment. One strategy might be to do Pre-Work. Pre-Work encourages students to think about the concept prior to the Puzzle Talk.

PUZZLE TALK
Extensions

Student Work

Name:_____ Date:_____

Jason needed to add 473 and 559 on a test. Jason said he didn't need to find the sum of the two numbers because he could eliminate 3 of the 4 choices.

- The three choices Jason eliminated are 932, 1232, and 1132.
- Select one of the incorrect answers and explain how Jason could eliminate it without adding the two numbers together.
- What is the correct answer that Jason chose?
    - 932
    - 1232
    - ?
    - 1132

PUZZLE TALK
Extensions

Student Work

Name:_____ Date:_____

JiJi and Robot were giving clues to their secret number. The clues were:

(1) This number rounds to 300 when rounded to the nearest 100.
(2) This number is an even number.
(3) This number rounds to 270 when rounded to the nearest 10.

What could the secret number be? Prove it.

Hundreds

100	200	300
400	500	600
700	800	900
1000		

PUZZLE TALK
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Pre-Work

Name:_____ Date:_____

What are some examples of a time when just an *estimate* of the number needed rather than the *exact* number needed would be appropriate? Explain.

Give an example of a number that has the same answer whether it is rounded to the nearest 10 OR the nearest 100. Explain.

Mrs. Hanover asked her third graders to write a number that would be 160 when rounded to the nearest 100. When Mrs. Hanover visited Table 1 to check students' answers, all 6 students at the table had a correct answer but every student's answer was different. What could their answers have been? Explain.