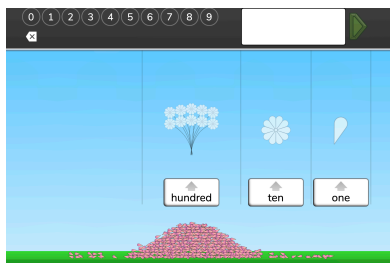


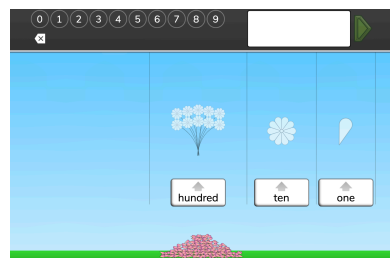


These activities extend the puzzles and the concepts learned in the puzzles throughout the week. The activities might be tasks, word problems, journal writing activities, or hands-on activities designed to deepen student understanding and help students make connections.

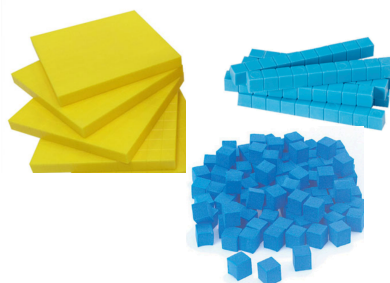
Some of the activities listed below work well in a remote environment and can be easily added to your virtual classroom. The activities that can be used remotely are designated as such.



- Put students into groups of 4. Show a puzzle from Level 3.
- Before solving have students estimate the number of petals. The group selects one of their estimates.
- As you solve the puzzle as a class, allow groups to adjust their estimates. Discuss their strategies for adjusting their estimates.
- Have students find the difference between their estimates and adjustments.
- Find which group had the least, greatest difference between their original estimate and their final estimate.
- As a class, look at each group's final estimate. Work together to write each number in word form and expanded form.
- Then, represent each final estimate with place value blocks. Compare the place value blocks to the petals, flowers and bunches used in the puzzle.




- Display and solve a puzzle in Level 3. Input the numerals to represent the answer but do not press the green triangle.
- Roll a number cube 3 times and record the number rolled each time to create a 3-digit number. Ask students to use place value blocks to build the new number.
- Say to students, "JiJi represented a 3-digit number with flower petals, We rolled a number cube to make our own 3-digit number. Which number is greater? How could you prove it?"
- Have students work in group of 2-3 to answer the question.
- Share groups' answers and strategies. As a whole class. Record the final answer using $<$, $>$, and $=$.



- Put students into groups of 4.
- Give some groups a pile of place value blocks (flats, rods and cubes). Give some groups a large pile of math tools, like centimeter cubes or beans (the total should be between 200-300).
- Tell the groups they are going to race each other – the first group to count the total value of their blocks wins. Let groups count.
- After a couple of the groups with place value blocks finish, have the groups with the math tools stop counting.
- Discuss why it was easier for the groups with place value blocks to count than the others. Explain that this is why we use our system based on 10.



- Go through the steps for making the groups' estimates above.
- When the puzzle is solved, have each group find the difference between their initial estimate and their final estimate.
- As a class, find the group that has the greatest difference and the least difference between their original estimate and their final estimate.


Pre-Work
Name: _____ Date: _____
Solve 321 x 45 using two different strategies?

- **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
Pre-Work

Name: _____

Date: _____

Why might you estimate instead of find an exact amount? Give an example of a time that estimation makes sense.

John is 7 years old and he said he can hold lots of pennies in one hand. Which is a reasonable estimate for the amount of pennies John can hold in one hand?

- 500, 50, 5,000
- Be ready to share your thinking!

Kara and Jenna are keeping track of how many puzzles they solve each week. They estimated that they could solve 275 puzzles total by the end of the week. Kara solved 134 and Jenna solved 129 puzzles. How many more puzzles do they need to solve in order to reach their goal of 275 puzzles? Show your work.