

Fourth Grade

Helicopter Table

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.

	 Give students whiteboards and dry erase markers. Display a puzzle from Level 2 with the rule of x 3. Ask students to work together to solve the puzzle, complete the table and write the rule. Have students explain how they can prove the rule is x 3. Ask students, "What if there were 5 helicopters? 6? 7? 10?" Have students work together to solve. Share students' answers and thinking.
	 Pose the following problem to students: The total number of cubes carried is 24. What are all of the possible number of cubes in each load? Have students work together with a partner to solve. Share solutions and strategies (e.g., 4 helicopters with 6 cubes in each load is 24 total cubes). Discuss with students how they know if they have found all of the possible solutions.
	 Give students whiteboards and markers. Display the first puzzle in Level 3 where the missing number in the table is the number of helicopters. Ask students to copy the table they see in the puzzle on their whiteboards. Ask students to turn and talk to a neighbor about how this puzzle is different than the other puzzles we've solved. Have students work together to solve the puzzle. Share students' strategies for finding the missing number. Ask students, "What is the rule for this puzzle? How can we use the rule to help us find the missing number?" Solve the puzzle. Repeat with the other puzzle(s) in Level 3 with a missing number of helicopters.
PUZLETALK Classroom Enhanced Student Work Marcer The Avlift Helicopter company has 3 helicopters. Each helicopter can carry a tidferent toad. Helicopter C can carry up to 3 boxes, Helicopter B can carry up to 4 boxes, Helicopter C can carry up to 5 boxes. Example C can carry up to 5 boxes. Societ with the company's best use of the helicopters might be. Justify your reasoning.	 Pose the following problem to students: The Airlift Helicopter company has 3 helicopters. Each helicopter can carry a different load. Helicopter A can carry up to 3 boxes, Helicopter B can carry up to 4 boxes, Helicopter C can carry up to 5 boxes. How many trips would be needed to carry 34 boxes? Explain what the company's best use of the helicopters might be. Justify your reasoning. Have students share their work with the whole group. <i>(Can be used remotely)</i>
Pro-Work Pro-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.



Name:	Date:

The Airlift Helicopter company has 3 helicopters. Each helicopter can carry a different load.

- Helicopter A can carry up to 3 boxes, Helicopter B can carry up to 4 boxes, Helicopter C can carry up to 5 boxes.
- How many trips would be needed to carry 34 boxes?
- Explain what the company's best use of the helicopters might be. Justify your reasoning.



Name:	Date:

What is the difference between a repeating pattern (e.g., 1, 2, 3, 1, 2, 3, 1, 2, 3, 1, 2, 3...) and a growing pattern (e.g., 3, 6, 9, 12, 15...)?

Look at the following shape pattern. O OOO OOOOO OOOOOO How could you express this pattern using numbers? What would be the next two steps in the pattern?

Choose any number between 0 and 10. Create a pattern from that number by adding 5 each step. What do you notice about the numbers in the pattern you create? Is this always true with an add 5 pattern? Explain.