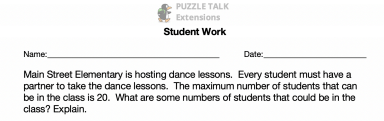
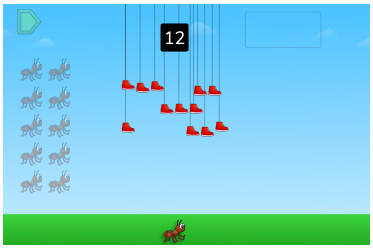
PUZZLE TALK Extensions

Second Grade | **Equal Groups** | **Bouncing Shoes**

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: ○ Main Street Elementary is hosting dance lessons. Every student must have a partner to take the dance lessons. The maximum number of students that can be in the class is 20. What are some numbers of students that could be in the class? Explain. • Have students use math tools, drawings, etc. to determine all of the different numbers of students what would able to be enrolled in the dance class. • Share students' solutions and define all of the correct answers as even numbers: numbers that can be split into two equal groups with no leftovers.
		• Give students a set of Creature Cards. Display a puzzle from Level 3. • Ask students to determine which other creature could wear the shoes with no leftover shoes. • Share students' ideas and prove that the creature they choose could wear all of the shoes. • Ask students to share their strategies for finding other creautures that would work.
		• Give students math tools and a piece of paper and pencil. Ask students to draw a line splitting their paper in half. • Ask them to label one side "even" and write a few even numbers down. • Then ask them to label the other side "odd" and write a few odd number down. • Have students share a few of the numbers they wrote down in each column and prove together that the number is correctly sorted. • Then ask students, "What kind of number do you get when you add an even number plus an even number? Why?" • Let students explore this question for a while and then discuss that adding two even numbers always gives an even sum. • Let students explore an even number plus an odd number as well as an odd number plus an odd number as well.
		• Give students a set of Creature Cards. • Ask students to use the Creature Cards to complete this sentence: ○ If the number of shoes will go on ___ without leftovers, then it will also go on ___. • Have students explore the relationship between the creatures to discover and prove creatures that will make this open sentence true. • Answers included Dog and Ostrich, Octopus and Dog, Ant and Robot, School Bus and Robot, etc.
		• **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.

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PUZZLE TALK
Extensions

Student Work

Name:_____ Date:_____

Main Street Elementary is hosting dance lessons. Every student must have a partner to take the dance lessons. The maximum number of students that can be in the class is 20. What are some numbers of students that could be in the class? Explain.

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Pre-Work

Name:_____ Date:_____

Explain how fair sharing can help you determine if a number is even or odd.

When something is equal or fair, people sometimes say it is *even*. What does the word *even* mean in math?

Lacey had a collection of dolls. Her mom was making pink shoes for each of her doll's feet. If her mom made 12 shoes, how many dolls does Lacey have?

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