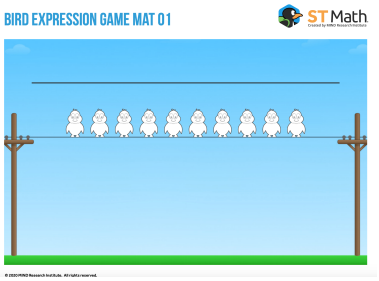
PUZZLE TALK Extensions

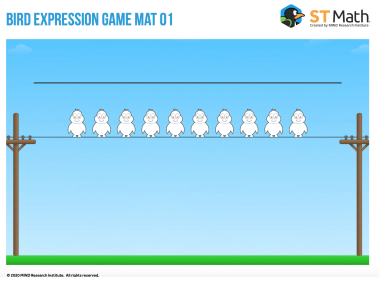
Kindergarten	Understanding Addition and Subtraction within 10	Bird Expression Subtraction

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 a Bird Expressions Game Mat and a dry erase marker. Display the problem 8 – 5.
- Ask students, "What does the number 8 represent on our game mat?"
- Have students shade in 8 birds to show that 8 birds are sitting on the wire.
- Then say to students, "Next in our equation, I see the minus sign and 5. What does this represent on our game mat?"
- Have students Think, Pair, Share with a neighbor.
- Have students share their ideas with the whole class.
- Say to students, "If the minus sign represents subtraction, how could be we represent on our board that we are subtracting 5 birds?" Students may suggest crossing out 5 birds, shading them a different color, etc.
- Represent taking 5 birds away and then ask students to find the answer to 8 – 5. Ask students to erase their mats and then display the problem 6 + 3. Ask students, "What does the number 6 represent on our game mat?" Have students shade in 6 birds to show that 6 birds are sitting on the wire. Then say to students, "Next in our equation, I see the plus sign and 3. What does this represent on our game mat?"
- Have students Think, Pair, Share with a neighbor. Have students share their ideas with the whole class. Say to students, "If the plus sign represents addition, how could be we represent on our board that we are adding 3 birds?" Students may suggest shading in 3 more birds, circling 3 more birds, etc. Have students find the solution to 6 + 3.
- Ask students, "How is a subtraction problem different from an addition problem?" Have students turn and talk to a neighbor to share their ideas.
- Repeat with other addition and subtraction equations.



- Give students a Bird Expressions Game Mat and a dry erase marker. Display the problem 6 + 0 and ask students to represent and solve the equation using their game mat.
- Have students turn and talk to a neighbor about their strategy and solution for this equation. Have a discussion about the number zero.
- Ask students, "What does it mean if zero more birds landed on the wire? How could we represent this on our mat? If 6 birds were on a wire and zero more birds landed on the wire, how many total birds are on the wire? Why?"
- Have students share their ideas with the class. Then display the problem 7 – 0. Ask students to again represent this problem on their game mat and discuss their thinking with a neighbor. Ask students, "What does it mean if zero birds flew away? How could we represent this on our mat? If 7 birds were on a wire and zero birds flew away, how many total birds are on the wire? Why?"
- Repeat with a few more addition and subtraction equations with zero.

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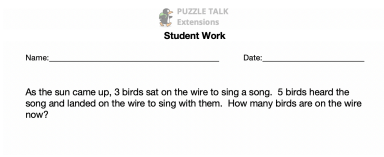
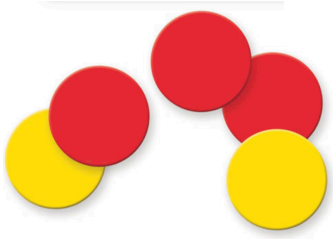
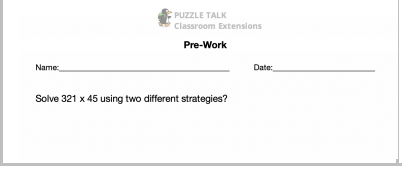
		• Give students a Bird Expressions Game Mat and a dry erase marker. • Pose different story problems about the birds on the wire and ask students to use the game mat to represent and solve the problem. • Challenge students to write an equation that represents the problem as well. • For example: ○ As the sun came up, 3 birds sat on the wire to sing a song. 5 birds heard the song and landed on the wire to sing with them. How many birds are on the wire now? • Have students share their strategies and solutions with the class. **(*Can be done remotely*)**
		• Give students a pile of two-color counters. Pose different part-part-whole situations for students and ask them to use the two-color counters to represent the situation. • For example, say to students, “There are 9 birds sitting on the wire. 4 birds are red birds and the rest are yellow. How many birds are yellow?” Write 4 + ? = 9 on the board and then record the solution as 4 + 5 = 9. • Repeat with other part-part-whole situations. Have students share their strategies and solutions. Record the solutions as equations.
		• **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:_____

As the sun came up, 3 birds sat on the wire to sing a song. 5 birds heard the song and landed on the wire to sing with them. How many birds are on the wire now?

PUZZLE TALK
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Pre-Work

Name:_____ Date:_____

What does the plus sign (+) mean when you see it in an equation? Explain.

What does the minue sign (-) mean when you see it in an equation? Explain.

Michelle has 7 crayons. She gives 3 of her crayons to her little sister. How many crayons does Michelle have now? Can you represent this problem with an equation?