Read Aloud

*Use the following questions and guidance to engage students in discussing the mathematical concepts featured in Arithmechicks Take Away.*

Prior to reading: Show the cover of the book. Read the title aloud. Ask: What do you think the book will be about? Why? Does the title help you predict what the book will be about? How about the pictures?

Page 1-2: What do you notice? What do you wonder?

Page 3-4: What does "hit the hay" mean? Why do you think the chicks said, "no way"?

Page 5-6: Where is the chick that is hiding? What is on the chick's notebook? What does the picture on the notepad show?
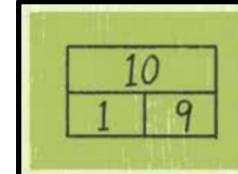

To **decompose** a number, or whole, means to break it into two parts. When one of the parts is subtracted from the whole, the one that remains is the difference or answer. This method is similar to a number bond.

Page 7-8: Where are the three chicks hiding? What does the model the chick drew in the notebook show?
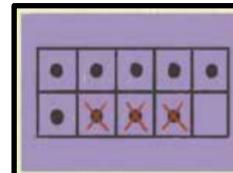
A **ten frame** is a visual tool containing ten squares. The dots represent the total number while the Xs represent the number that has been taken away. The remaining dots equal the difference or answer.

Page 9-10: What strategy is the chick using to figure out how many chicks aren't hiding yet?

Fingers (or feathers) can be used to subtract numbers in an equation. Start with your hands showing the total number. Then fold down fingers as you are taking away the desired number. The fingers that remain are the difference or answer.

Page 11-12: How many chicks aren't hiding yet? How do you know?
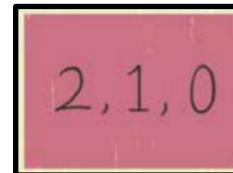
To **count back**, start with the largest number. Then continue to go lower by counting down as you take away the objects, pictures, or numbers.

Page 15-16: How many chicks did the mother find? How many more chicks does she still need to find? How do you know?

Page 17-18: How many animals are in this picture altogether? Can you figure out the number of animals without counting one-by-one?
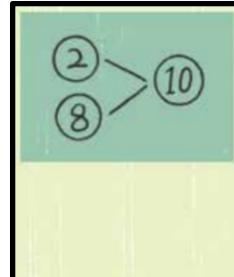
A **number bond** is a picture representation of a number and two parts that make up that number. It is a clear visual of the relationship between addition and subtraction. The large number is the "whole." The two smaller numbers are the "parts" of that whole. In subtraction, you take away one of the parts from the whole and the part that remains is the difference.

Page 19-20: Look at the picture the chick is drawing in the notebook. What does it show? What is another picture the chick could have drawn here that would have shown the same math?

Page 21-22: How do the pictures the chick is drawing in their notebook show what is happening in the story?
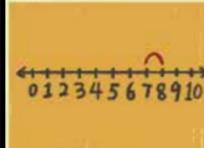
A **number line** is a line of numbers in sequential order. The first number in an equation is the starting point. The second number is taken away from the first by hopping spaces to the left, equaling the value of that number.

A subtraction **equation** is a number sentence that shows the difference between two numbers using a minus sign and an equal sign.

$$7 - 5 = 2$$

Page 23-24: What equation could the chick add to their notebook to explain their picture?
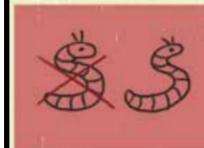
To **draw a picture** for subtraction, is to make an image to represent each number in the whole. Then cross off the desired amount to find the difference or answer.

Page 27-28: How can you use math to explain what is happening in this picture? Use math drawings or numbers to explain the picture.

Page 29-30: What do you notice about this picture?

Follow-up: Look back at all of the different ways the chicks showed subtraction in their notebooks. What do you notice? What do you wonder? Can you try using some of these strategies to solve some subtraction problems?
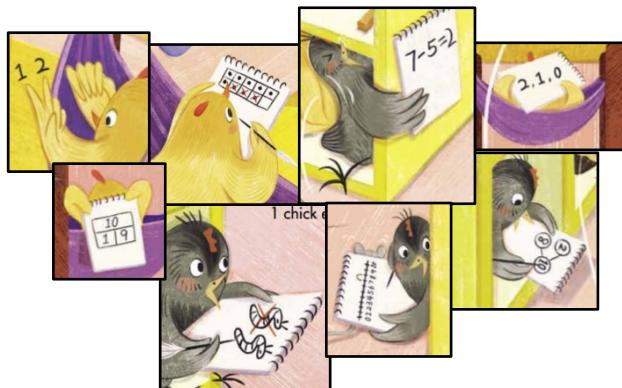
Important Math Words	
Subtraction	Difference
taking something or things away from a group	the answer to a subtraction problem

Reading and discussing <u>Arithmechicks Take Away</u> can help students develop their mathematical understandings related to the following Common Core Mathematics Standards.

K.OA.A.1	K.OA.A.2	K.OA.A.3	K.OA.A.4	K.OA.A.5
1.OA.A.1	1.OA.B.4	1.OA.C.5	1.OA.C.6	1.OA.D.7

Name: _____

Arithmechicks Take Away: Hiding Chicks 1

Directions: Cut out the chicks from the bottom of the page and glue or tape them on the picture to show how many chicks aren't hiding.

10 chicks are out to play. 6 chicks are hiding behind the tree.
Paste the chicks you can see next to the tree.
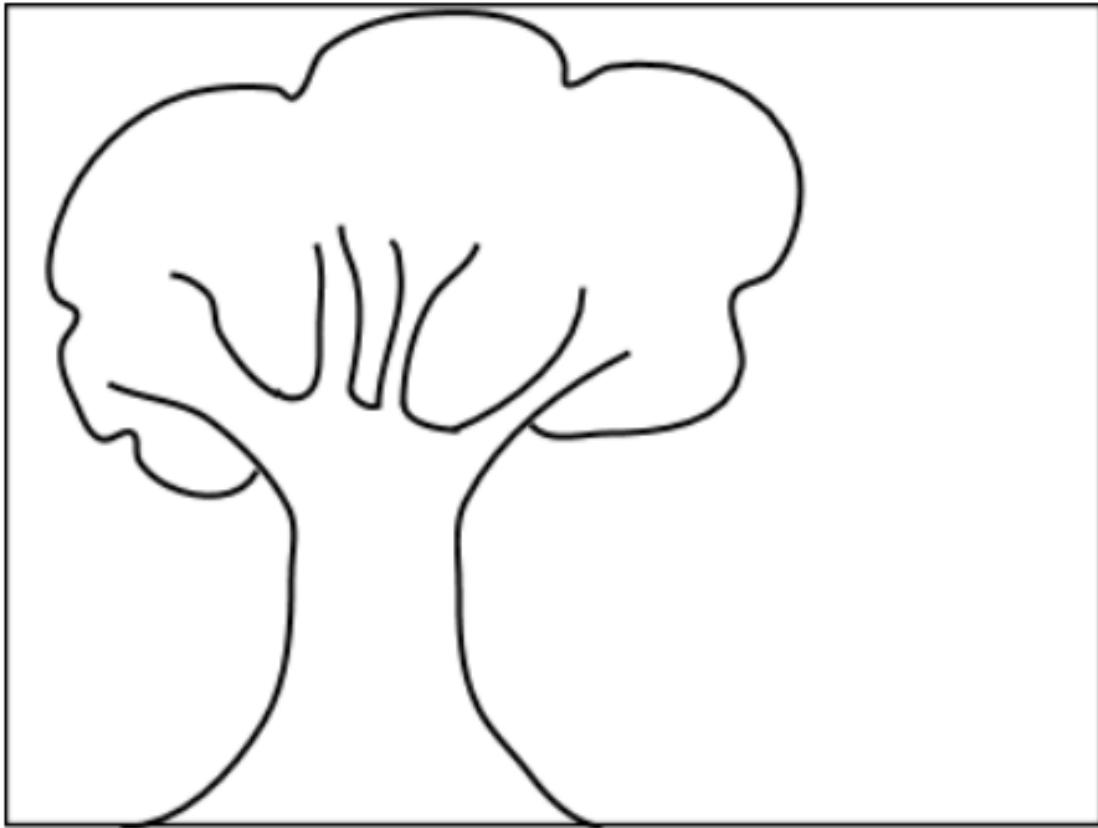
Use the ten frame to represent what is happening in the picture.	Write an equation to show what is happening in the picture.
	☐ **-** ☐ **=** ☐
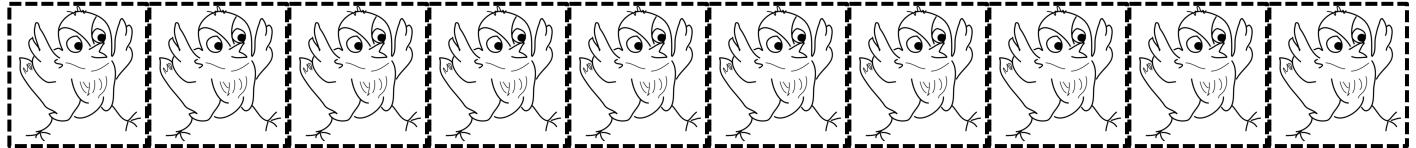
Name: _____

Arithmechicks Take Away: Hiding Chicks 2

Directions: Cut out the chicks from the bottom of the page and glue or tape them on the picture to show how many chicks aren't hiding.

10 chicks are out to play. 5 chicks are hiding behind the wall.
Paste the chicks you can see in front of the wall.
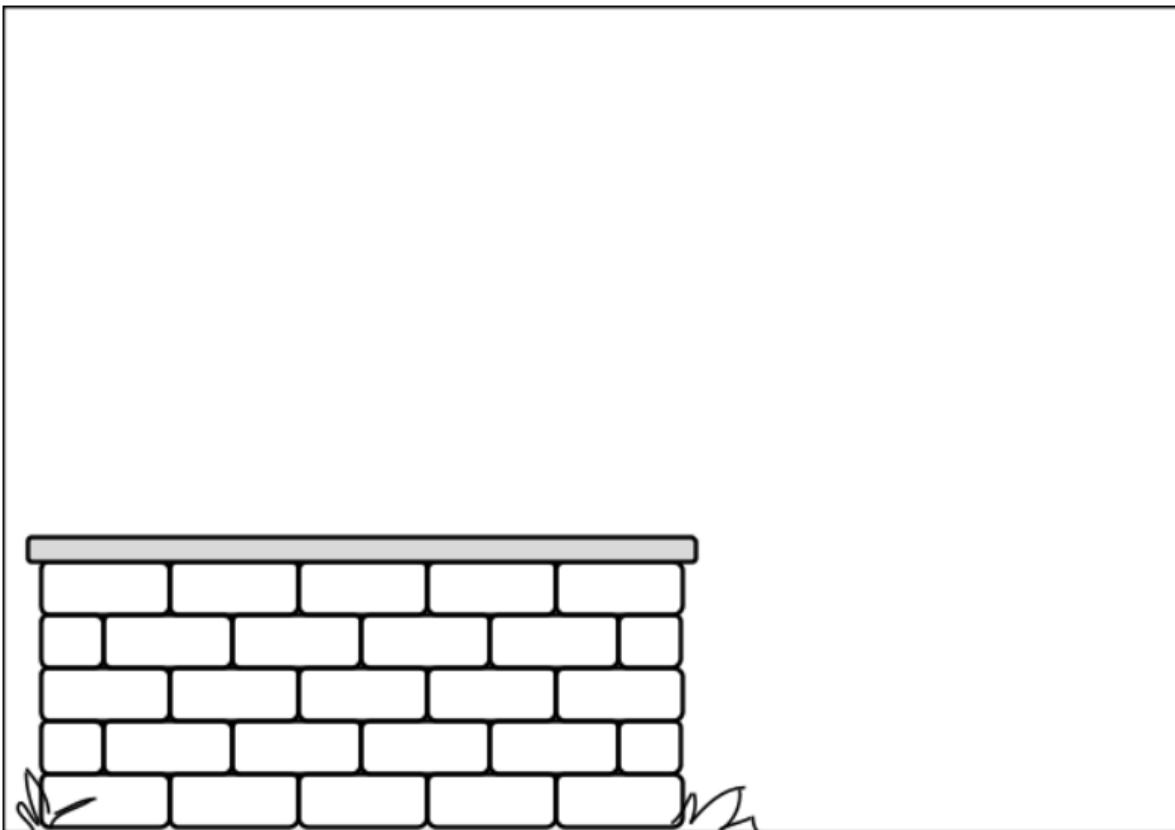
Use the model to show what is happening in the picture.	Write an equation to show what is happening in the picture.
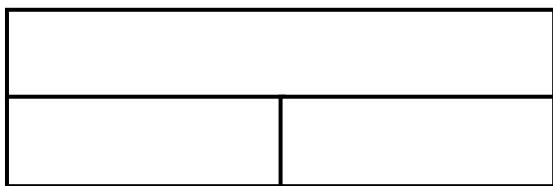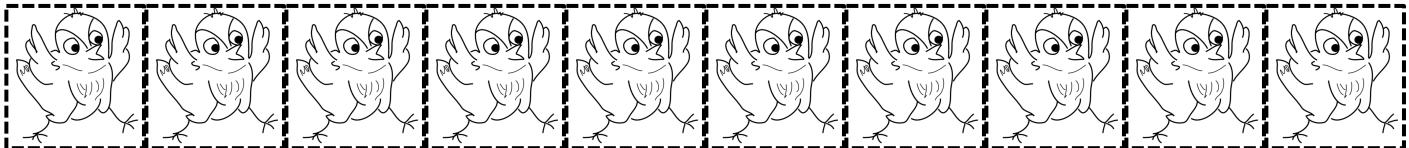
Name: _____

Arithmechicks Take Away: Hiding Chicks 3

Directions: Cut out the chicks from the bottom of the page and glue or tape them on the picture to show how many chicks aren't hiding.

10 chicks are out to play. 1 chick is hiding behind the big flowers.
Paste the chicks you can see in front of the flowers.
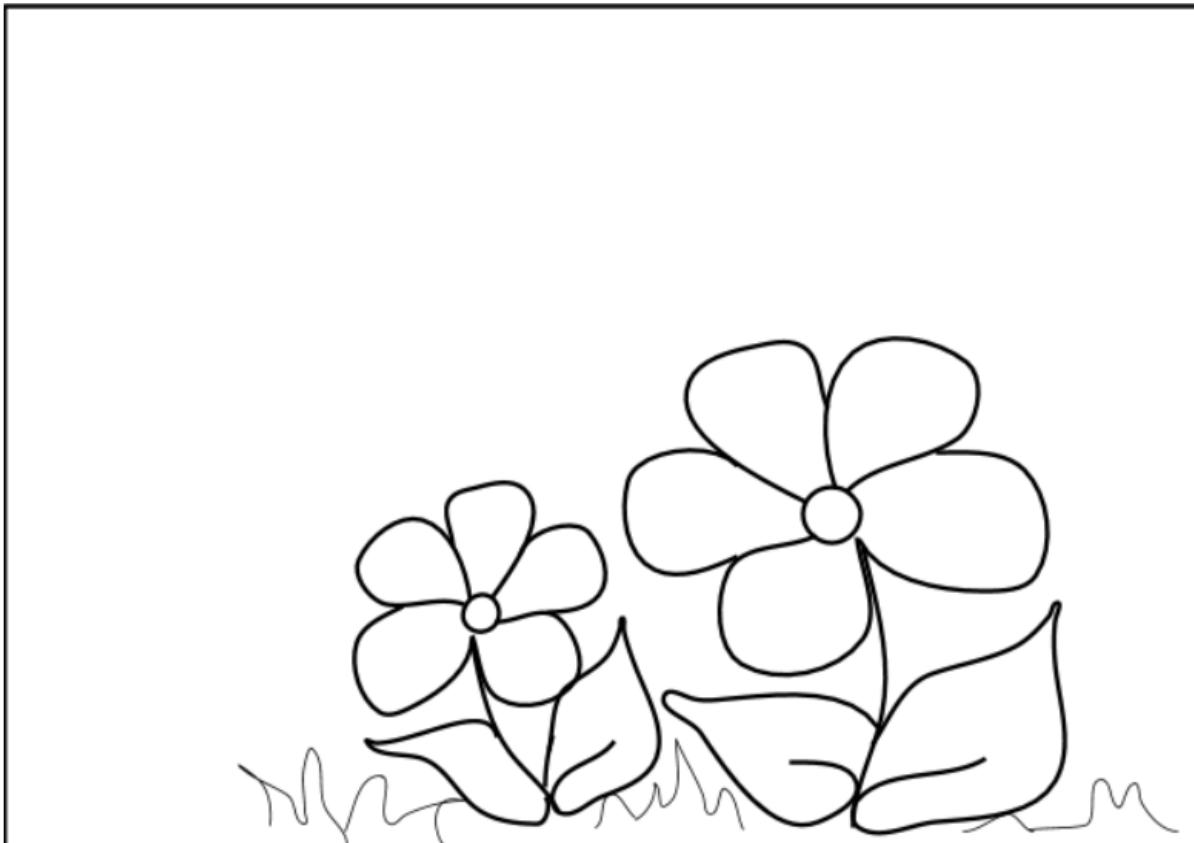
Use the model to show what is happening in the picture.	Write an equation to show what is happening in the picture.
10	☐ − ☐ = ☐
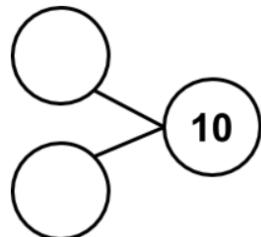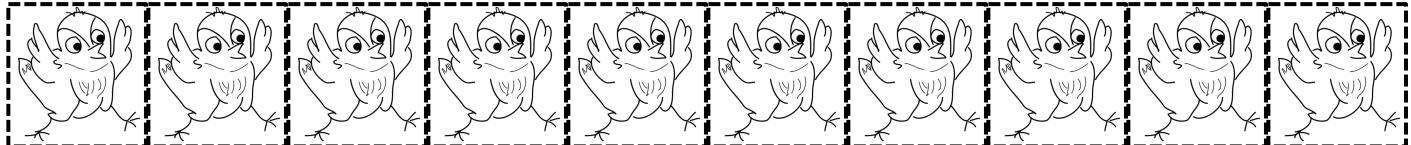
Arithmechicks Take Away: Five and Ten

Before You Play:
1. Cut the *Five and Ten Game Cards* on the dotted lines to make your 40 game cards.
2. Mix up the game cards and place them face down in a pile in the center of the table.
3. Each player should take 5 cards from the pile, then turn one card face up for all players to see.

The Goal of the Game
Make pairs of cards that equal 5 or 10, either using addition or subtraction.

$7 - 2 = 5$ $5 + 5 = 10$ $9 - 4 = 5$
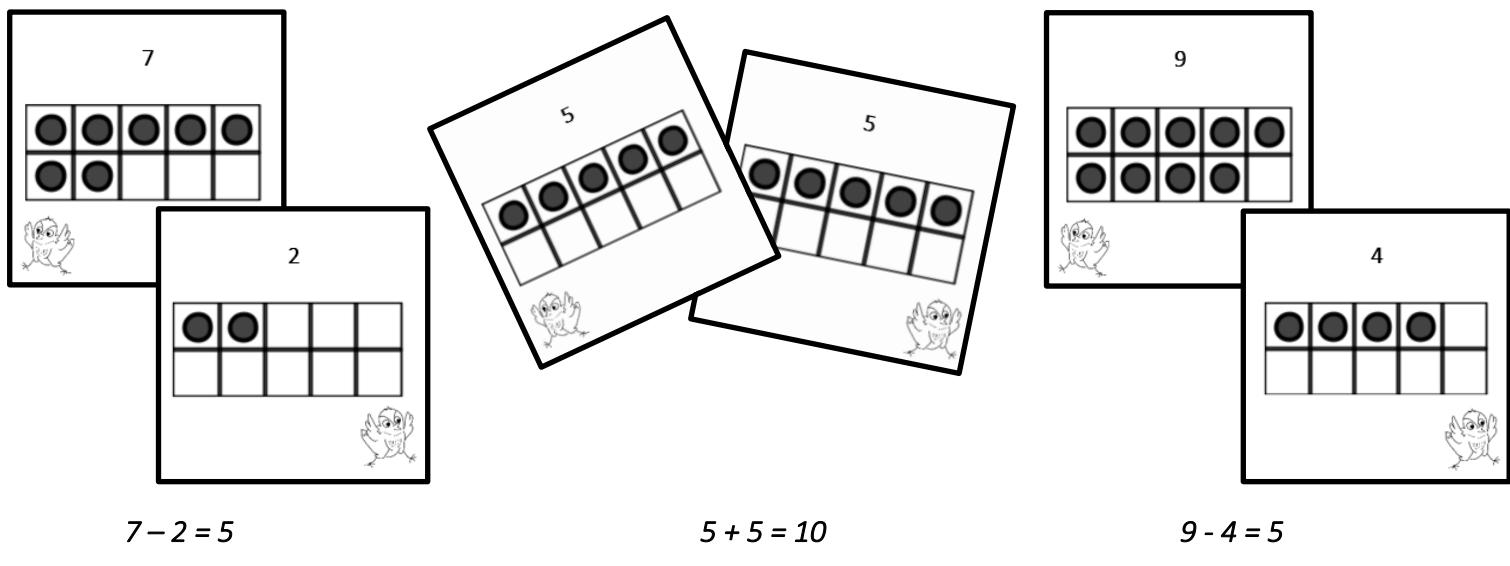
To Play:
1. After dealing the cards, choose who goes first. The first player takes a card, either the card that is face up or a card from the face-down pile.
2. That player adds the new card to their hand and tries to find a pair that creates an equation that equals 5 or 10. If they have a pair that equals 5 or 10 they remove the pair from their hand and place it face up in front of them.
3. That player then discards one of the cards from their hand into the face up pile.
4. After discarding, if a player has less than 5 cards in their hand they can draw to restock their hand.
5. Then the next player takes a card, tries to create an equation that equals 5 or 10, and then discards a card from their hand to end their turn.
6. Continue until there are no more cards remaining in the face-down card deck.

How to Win:
1. When there are no more cards in the deck, the person with the most pairs that total 5 or 10 wins.

Arithmechicks Take Away: Five and Ten Game Cards
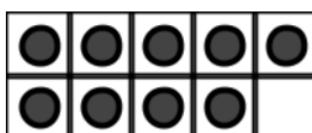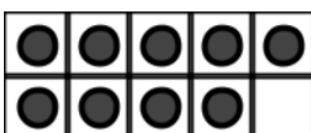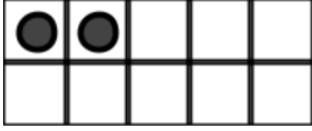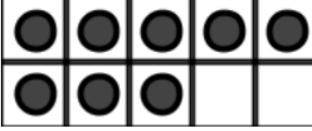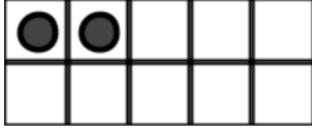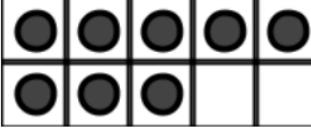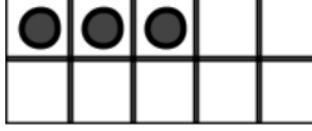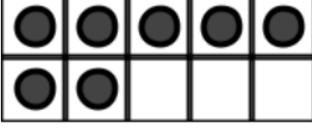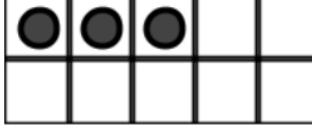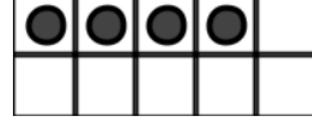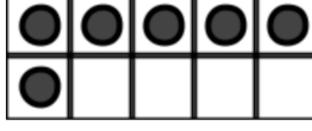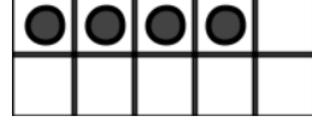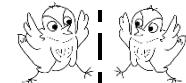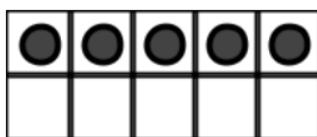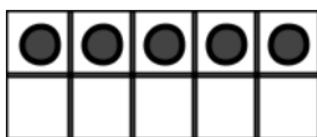
1	9	1	9
2	8	2	8
3	7	3	7
4	6	4	6

5	5	0	10

Arithmechicks Take Away: Five and Ten Game Cards

1	9	1	9
2	8	2	8
3	7	3	7

4	6	4	6

5	5	0	10
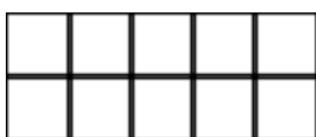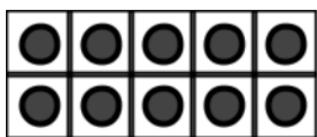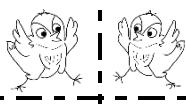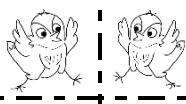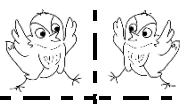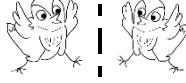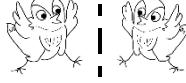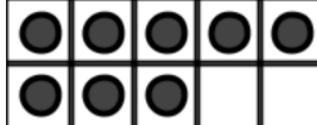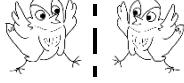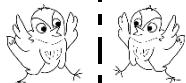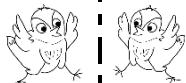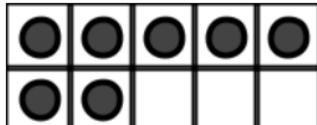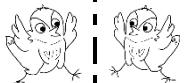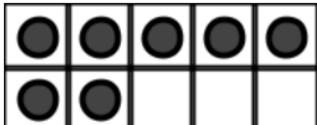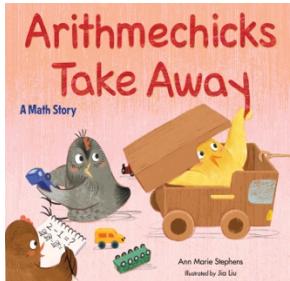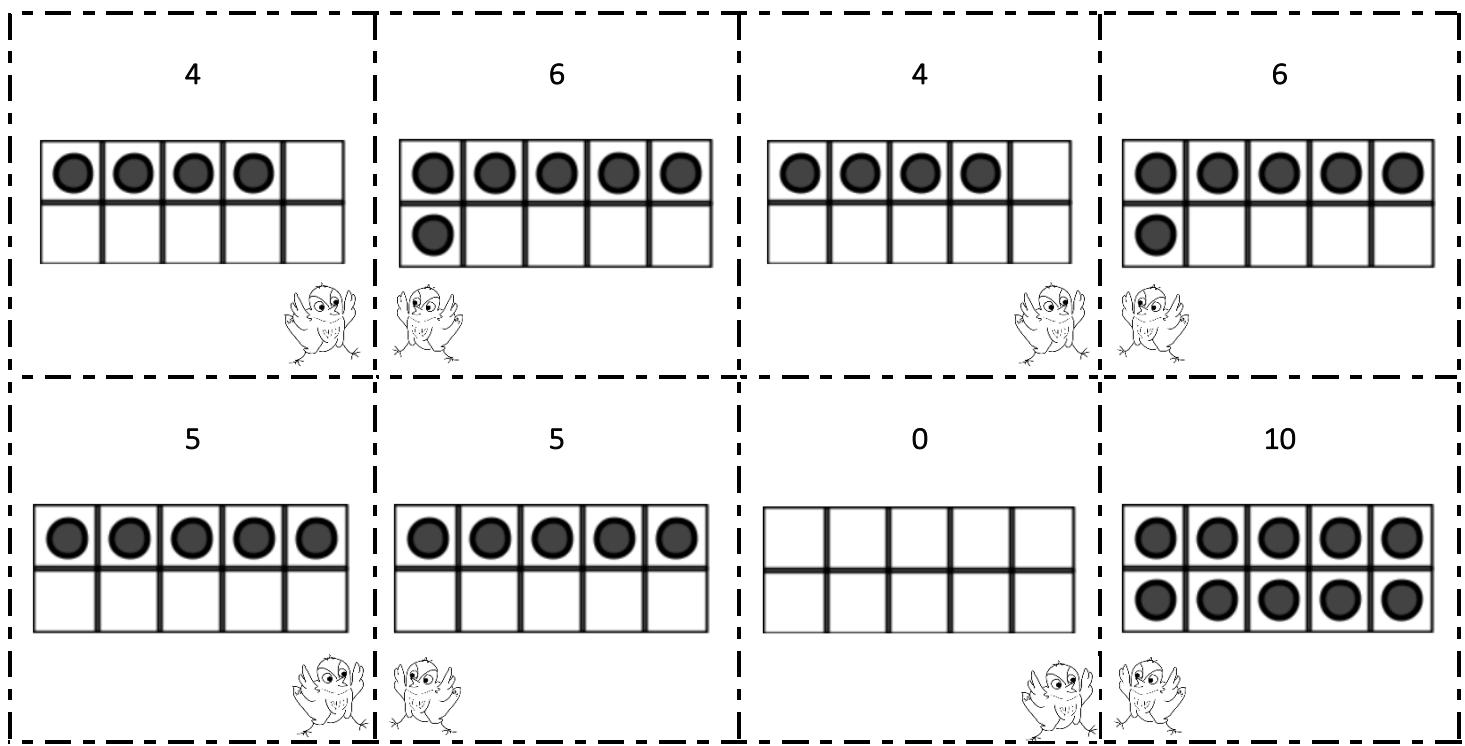
ARITHMECHICKS TAKE AWAY: A Math Story
By Ann Marie Stephens; illustrated by Jia Liu
9781629798080/Ages 4 – 8/$17.99 US * $23.99 CAN

"Arithmechicks discover that (as Stephens puts it) 'bedtime – chicks = later bedtime!' 10 diversely hued and patterned chicks respond to Mama's 'Time to hit the hay!' with a wild scramble to hide… Stephens uses alliteration and internal rhymes to set up a cozy rhythm, and she brings the brouhaha to an end with a final henhouse snuggle. Feathery fun for the newly numerate. Take it away, Arithmechicks!" —*Kirkus Reviews*