

**This is a one-week excerpt from the Starfall Kindergarten Mathematics Teacher's Guide.**

If you have questions or comments, please contact us.

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# Cumulative Review

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# Year Review

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# Week 32 Summary

This week, the children will review how many more or less it takes to reach a specific number, composing and decomposing numbers 6-10, plus and minus signs, number representations, and estimation. The children will also:

- play “What’s the Operation?”
- solve addition and subtraction problems
- review shapes (“Shape Game”)
- play “Concentration” with Representation Cards

## Preparation

### DAY 1

In today’s Magic Math Moment the children will play “I Spy” with “Backpack Bear’s Math Dictionary” (See *Backpack Bear’s Math Big Book*, pages 47-56).

Label eight individual sheets of construction paper with one number each from 7 to 10 at the top. You will need two of each number.

### DAY 2

Prepare two sets of index cards with one of the following numbers on each card: 1, 10, 20, 50, 100, and 1000. (Two cards labeled “1,” two cards labeled “10,” etc.)

### DAY 3

For today’s lesson you will need a large ball and a basket or box in which to place Subtraction Equation Cards.

### DAY 4

For today’s Magic Math Moment the children will need their math mats and their math bags that contain bags of coins. You will also need a bag of coins for demonstration purposes.

Have 2 index cards for each child for today’s math lesson.

DAY 5

*Activity Center 1* — Navigate classroom computers to *Starfall.com*.

*Activity Center 2* — The children will need dominoes and 1 or 2 “Parking Lot” game boards.

*Activity Center 3* — The children will need 1 or 2 “Shape Town” game boards, 1 or 2 sets of Shape Cards, and a playing piece for each child in the group.

*Activity Center 4* — The children will need a “Number Grid: Count to 50” game board, dominoes, and a playing piece for each child in the group.

*Activity Center 5* — The children will need a pocket chart and Representation Cards 1-10, (Number Cards 1-10, Domino Cards 1-10, Dice Cards 1-10, and Ten-frame Cards 1-10).

**Note:** If there are enough children in Activity Center 5 for two groups to play simultaneously, they will need two sets of the Number, Domino, Dice, and Ten-frame Cards.



DAY 1

DAY 2

*Daily Routines*

- Calendar
- Weather
- Number Line
- Place Value
- Hundreds Chart

*Magic Math Moment*

"Our Math Dictionary"

*Estimate with Backpack Bear*

*Math Concepts*

Composing and Decomposing Numbers 6-10

Addition Game Day  
Solve addition equations

*Formative / Summative Assessment*

Groups share equations

*Workbooks & Media*

*Math Melodies* CD, Track 23

DAY 3

DAY 4

DAY 5

- Calendar
- Weather
- Number Line
- Place Value
- Hundreds Chart

Learning Centers

Position Words  
*Where Oh Where is Backpack Bear?*

Create patterns using coins

Starfall.com (Any activity)

1

Solve subtraction equations

Review and make plus and minus signs  
Play "What's the Operation?"  
Determine the appropriate operation to use to solve story problems

"Parking Lot"

2

"Shape Town"

3

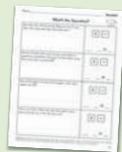
Write and solve equations for story problems (Workbook page)

"Count to 50 Number Grid Game"

4

*Math Melodies* CD, Track 29

Workbook page 45



"Number Concentration"

5

**“Our Math Dictionary”**

Say: **This week we will review some of the math ideas we learned this year. To review means we learned it already, and now we will talk about it again to see how well we remember. Let’s start with a song! If you remember this song, stand and join in.** Play *Math Melodies* CD Track 23, “Ten Bears in the Bed.”

Say: **This year we learned about using a dictionary. Who can tell us what a dictionary is?** (Volunteers respond.) **Right, a dictionary is a place we can look to help us understand, read, and write words.**

Indicate *Backpack Bear’s Math Big Book*, page 47.

Continue: **Since this is a special math dictionary all of the words in it are math words. Backpack Bear would like us to play “I Spy” with some of the words in this dictionary.**

Turn to page 46. Say: **Look at the words that begin with Aa. I spy the word “above.” Raise your hand if you can come to the front and point to the word above.** A volunteer does this. The volunteer indicates the word *above* and explains how he or she knows it is the correct word.

Say: **I spy** (a B word). The first volunteer chooses the next volunteer, and the game continues.

**Note:** To make the game more interesting, skip around in the dictionary.

**Materials**

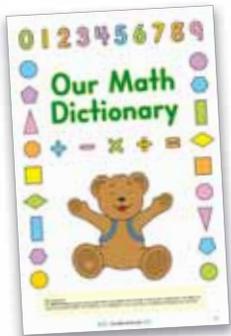
- Backpack Bear’s Math Big Book*, pages 47 and 48
- Math Melodies* CD, Track 23

**Geometry**

A.1 - Describe objects using shapes and relative positions.

**Operations & Algebraic Thinking**

A.3 - Decompose numbers less than 11.

**Composing and Decomposing Numbers 6-10****Materials**

- Prepared paper labeled with numbers 7-10
- Pencils

**1 Composing and Decomposing 6**

Gather the children in front of the classroom whiteboard. Say: **Today let’s write all of the different equations we can for numbers. We’ll try one together.**

Write the number 6 on the board. Ask: **What’s an equation that equals 6?** You or a volunteer write the equation on the board. Volunteers continue naming equations that equal 6 and listing them on the board.

**Note:** If the children are not able to think of several equations for a number, Backpack Bear may suggest one, such as  $7-1=6$ . Encourage the children to create both addition and subtraction equations.

## 2 Composing and Decomposing 7-10

Divide the class into groups of 3 and distribute a sheet of paper with the number 7, 8, 9, or 10 on it to each group. The children in each group work together to create as many equations as possible to equal that number. Assign one child in each group to write the equations on the paper.

**Note:** More than one group may have the same number depending on the size of your class.



## Formative Assessment

### Record Results

Record the equations on the whiteboard as each group shares its results. The class confirms whether or not the equations equal the target number.

**Estimation**

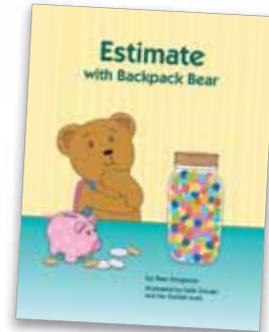
Say: **Today let's do some estimation with Backpack Bear! Who can choose a number between 4 and 40?**

A volunteer does this.

Turn to the corresponding page in *Estimate with Backpack Bear* and lead the children to complete the estimation activity. A different volunteer chooses a number and the children complete the estimation activity on that page. Continue as time allows.

**Materials**

- Estimate with Backpack Bear*

**Estimation**

E.1 - Understand the meaning of estimation.

**Operations & Algebraic Thinking**

A.2 - Solve word problems with addition and subtraction within 10.

**Addition Game Day****Materials**

- Prepared Point Value Cards (2 sets)
- Addition Equation Cards

Divide the class into two teams and write Team 1 and Team 2 on the whiteboard.

Say: **Today we will work in teams. Each team will have a set of point cards with different numbers on them.**

Distribute a set of point cards face down to each team.

Continue: **The teams will take turns. I will show you an equation card. The first person on the team will give the answer. If the answer is correct, he or she will reveal an index card that tells how many points the team receives. You might receive 1 point or you could receive 1,000 points! If your answer is not correct, you may ask other children on your team for help. I'll be the scorekeeper. Ready?**

Continue play as time allows.

## Position Words

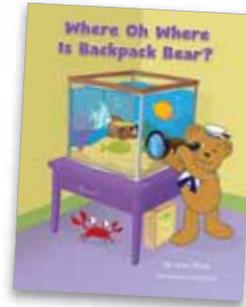
Say: **Today we will review our book about positions. First, let's sing "This Old Man." As we sing, let's create actions to go with the song. Be sure to point to where the old man played knick-knack each time! Ready? Let's stand.**

Play *Math Melodies* CD Track 29, "This Old Man." Encourage the children to sing along.

Read *Where Oh Where Is Backpack Bear?* Pause to discuss illustrations and review position words as you read.

### Materials

- Where Oh Where Is Backpack Bear?*
- Math Melodies* CD, Track 29



### Geometry

A.1 - Describe objects using shapes and relative positions.

### Operations & Algebraic Thinking

A.2 - Solve word problems with addition and subtraction within 10.

## Subtraction Ball Toss

Gather the children in a circle. Say: **Today we will play a subtraction game with a ball and the Subtraction Equation Cards. The game is called "Ball Toss."**

Choose a "helper" to stand next to you with the basket (or box) of equation cards.

Continue: **I will toss the ball to one of you. (Helper's name) will remove an equation card from the basket and show it to you. If you caught the ball, you will tell us the answer. If the answer is correct you will toss the ball to another child and he or she will answer another equation. If the answer is wrong, you will toss the ball back to me and I will toss it to another child. Ready?**

If necessary, remind the children that only the child who caught the ball should answer.

**Note:** You may alternate helpers to give several children a turn.

### Materials

- Ball
- Subtraction Equation Cards in a basket or box

## Patterns Using Coins

Gather the children in a semicircle on a rug or the floor. Say: **Today we will use your math mats and the coins in your math bags to create different patterns. Let's try one together.**

Spread the coins from your bag onto the floor. Continue: **Who can create a pattern using my bag of coins?** A volunteer does this. The children determine the pattern.

Distribute the math mats and math bags.

Say: **Now you will use your own coins to create patterns. Remove all of the coins from your math bag and place them on your math mat.** The children do this.

Say: **Raise your hand if you can tell me which coins you have.** (Volunteers respond.) **Right, you have pennies, nickels, and dimes. Think of a pattern you could create with them.**

The children create patterns and share them with the class.

### Materials

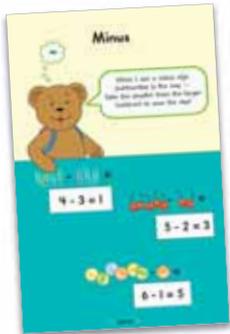
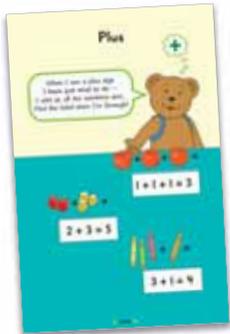
- Math bags with bags of coins
- Math mats
- Teacher bag of coins

### Measurement & Data

B.3 - Classify, count, and sort objects.

### Operations & Algebraic Thinking

A.2 - Solve word problems with addition and subtraction within 10.



## What's the Operation

### 1 Review Plus and Minus Signs

Say: **This year we have learned about the operations of addition and subtraction. Who remembers the difference?** (Volunteers respond.)

**Right, when we add we put numbers together and then we have more. When we subtract we take numbers away and then we have less.**

Indicate *Backpack Bear's Math Big Book*. Review the plus sign on page 43 and the minus sign on page 45. Say: **When we add or subtract we call these operations. The plus and minus signs are very important because they tell us which operation we should do.**

### 2 Make Plus and Minus Signs

Distribute two index cards to each child. Say: **Use your crayon to make a plus sign on one index card and a minus sign on the other.** (The children do this.) **You will use these signs today to play a game called "What's the Operation?"**

### Materials

- Backpack Bear's Math Big Book*, pages 43 and 45
- Backpack Bear's Math Workbook #2*, page 45
- Two index cards per child
- Pencils, crayons

3

### Play “What’s the Operation?”

Say: **Listen closely to this number story and decide which operation, addition or subtraction, we should use to solve the problem. Ready?**

- **Story #1**—One flower has 5 petals. Another flower has only 4 petals. How many petals do the flowers have altogether? What’s the Operation?

The children hold up their plus or minus signs to indicate the correct operation to solve the problem.

Repeat the story problem. A volunteer solves it and explains how he or she knew which operation to use.

Continue the above procedure for the following story problems. Emphasize key terms (*altogether, how many are left, etc.*) as you read the problems, and remind the children to use these clues to help them make their choices.

- **Story #2**—One tree has 3 apples. Another tree has 4 apples. If Tommy picks all the apples from both trees how many apples will he have? What’s the Operation?
- **Story #3**—Eight children were riding bikes. Two of the children needed to go home. How many children were still riding their bikes? What’s the Operation?
- **Story #4**—Susi and John each have two balloons. How many balloons do they have altogether? What’s the Operation?

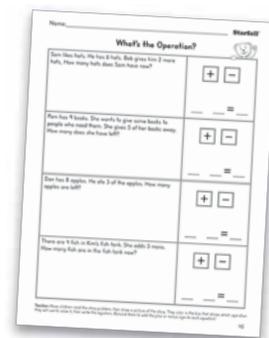


## Formative Assessment

### What’s the Operation?

Distribute *Backpack Bear’s Math Workbook #2*. Instruct the children to turn to page 45. If you have projection capabilities, project this page for demonstration purposes.

Say: **We will work the first problem together as an example. Who can read the first problem?** A volunteer does this, with your assistance if necessary. The children draw pictures to represent the story. They color the box that shows the correct operation to use to solve the problem. Then they write the corresponding equation and solve the problem.



## Learning Centers

## 1 Computer

The children explore their favorite *Starfall.com* math activities.

**Note:** The children may enjoy being allowed to explore the first grade math online activities in addition to the kindergarten activities they have explored this year.

## Materials

- Classroom computer navigated to *Starfall.com*

## Operations &amp; Algebraic Thinking

A.1 - Represent addition and subtraction in a variety of ways.

A.3 - Decompose numbers less than 11.

## Geometry

A.2 - Correctly name shapes.

## 2 "Parking Lot"

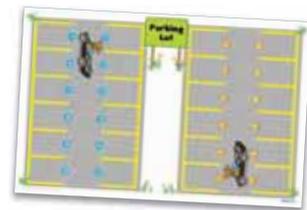
The first child selects a domino, adds the dots on the domino, then "parks" the domino in the appropriate parking space.

If the child chooses a domino that equals the same value as one already on his or her board, he or she stacks it on top.

The children take turns. The first child to fill all of his or her parking spaces wins, or the game continues until both children fill their spaces.

## Materials

- 1 or 2 "Parking Lot" game boards
- Dominoes placed face down



## 3 "Shape Town"

The children take turns drawing from a stack of Shape Cards. They move to the next corresponding shape on the game board. Play may end when a player reaches the star, or play may continue until both players reach the star.

## Materials

- 1 or 2 two-dimensional "Shape Town" game boards
- Shape Cards (1 or 2 sets)
- One playing piece per child



## 4 "Count to 50 Number Grid Game"

The children place the dominoes face down. They place their playing pieces at 0 on the game board.

For each turn the player turns over a domino and adds together the dots on both sides then moves his or her playing piece the corresponding number of spaces.

Play ends when the first player reaches 50.

**Note:** For a more challenging game use the Count to 100 side of the game board.

### Materials

- "Count to 50" game board
- Playing piece for each player
- Dominoes



## 5 "Number Concentration"

**Note:** If two groups play simultaneously, they will need two sets of Number, Domino, Dice, and Ten-frame Cards.

The children mix together the different sets of cards and arrange them face down in a pocket chart. They take turns to reveal two of the cards.

The goal is to find two cards that represent the same number. If a match is made the child places the cards on a table or on the floor and takes another turn.

If a match is not made, the child turns the cards face down and play continues with the next player. You may vary the game by forming two groups.

### Materials

- Pocket chart
- Number Cards 1-10
- Domino Cards 1-10
- Dice Cards 1-10
- Ten-frame Cards 1-10