

# Kindergarten Math: A 13-Week Adventure for Finley (Weeks 13-25)

This plan focuses on hands-on activities, creative problem-solving, and fun. Each week is designed to be flexible and engaging, building foundational math skills through play.

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## Week 13: The Great Number Hunt (Numbers 11-15)

- **Learning Objective:** Finley will be able to identify, count, and represent numbers 11-15 using objects.
- **Materials:** Post-it notes, marker, a basket or bag, 15 small objects (like LEGO bricks, animal counters, or pom-poms).

### Lesson Activities:

1. **Warm-Up (5 mins):** Count from 1 to 10 together, forwards and backwards. Use fingers to show numbers 1-10.
2. **Main Activity: The Number Hunt (15-20 mins)**
  1. Before the lesson, write numbers 11, 12, 13, 14, and 15 on separate Post-it notes and hide them around the room.
  2. Tell Finley he is going on a "Number Hunt." His job is to find the hidden numbers.
  3. When he finds a number (e.g., 13), he brings it back to the workspace.
  4. Together, say the number's name. Then, have Finley count out that many objects from the basket to match the number. For 13, he would count 13 LEGOs. Use a ten frame (a simple 2x5 grid drawn on paper) to help organize the count: one full ten frame and three extra objects.
  5. Continue until all five numbers are found and represented with objects.
3. **Wrap-Up & Check for Understanding (5 mins):** Place a pile of 14 objects in front of him. Ask, "Can you count these for me? How many are there?" Then ask him to find the matching written number from his hunt.

**Support Tip:** If counting past 10 is tricky, focus on the concept of "one group of ten and some more." Use the ten frame to make this visual.

**Challenge Finley:** Ask him to find the number that is "one more" or "one less" than a number he found (e.g., "What is one more than 12?").

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## Week 14: Building Block Towers (Numbers 16-20)

- **Learning Objective:** Finley will be able to identify, count, and represent numbers 16-20 and compare which number is greater.
  - **Materials:** Number cards (1-20), at least 20 building blocks (like Duplos or wooden blocks).
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**Lesson Activities:**

1. **Warm-Up (5 mins):** Quickly flash number cards 1-15 and have Finley say the number.
2. **Main Activity: Tower Builders (15-20 mins)**
  1. Introduce the numbers 16, 17, 18, 19, and 20. Lay out the number cards for 16-20.
  2. Give Finley the pile of blocks. Have him pick a number card, for example, 18.
  3. He must then build a tower using exactly 18 blocks, counting aloud as he builds.
  4. After building the tower, he places the number card next to it.
  5. Continue for the other numbers until he has five towers of different heights.
  6. Ask comparison questions: "Which tower is the tallest? That means 20 is the biggest number here. Which tower is the shortest?"
3. **Wrap-Up & Check for Understanding (5 mins):** Place two towers in front of him (e.g., the 16-block and 19-block towers). Ask, "Which tower has more blocks? Which has fewer?"

**Support Tip:** If counting high numbers is a struggle, have him make groups of 10 blocks first, then count on from there. This reinforces place value.

**Challenge Finley:** Ask, "How many more blocks do you need to make the 17-tower into a 20-tower?" Have him physically add the blocks and count them.

**Week 15: Snack Time Addition (Intro to Addition)**

- **Learning Objective:** Finley will understand that addition means "putting together" and will be able to solve simple addition problems using concrete objects.
- **Materials:** Small snacks (goldfish crackers, grapes, cereal), two small bowls, one larger bowl, paper and marker.

**Lesson Activities:**

1. **Warm-Up (5 mins):** Count to 20. Ask, "What number comes after 8? What number comes after 15?"
2. **Main Activity: Combining Snacks (15 mins)**
  1. Tell a story: "You have 3 goldfish crackers in this bowl. I am going to give you 2 more." Place 3 crackers in one small bowl and 2 in another.
  2. Ask, "How many crackers will you have if we put them all together in the big bowl?" Let him guess.
  3. Have Finley pour the crackers from both small bowls into the large one. Then, have him count the total. "3 crackers and 2 crackers make 5 crackers!"
  4. On the paper, write out the equation as you say it: " $3 + 2 = 5$ ." Explain that the '+' sign means "put together" or "add," and the '=' sign means "is the same as."
  5. Repeat with different combinations (e.g.,  $4 + 1$ ,  $5 + 3$ ), letting Finley "act out" the problems with his snacks.
3. **Wrap-Up & Check for Understanding (5 mins):** Set up a problem (e.g., 4 grapes and 4 grapes). Ask, "Can you show me what 4 plus 4 looks like? How many are there all together?" Then, enjoy the snack!

**Support Tip:** Focus entirely on the hands-on action. If the symbols (+, =) are confusing, put them aside for now and just focus on the language: "4 and 2 makes 6."

**Challenge Finley:** Ask him to create his own addition story. "Can you make up a problem for me? How

many crackers should I start with? How many should I add?"

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## Week 16: Addition Story Creator

- **Learning Objective:** Finley will be able to create and solve addition story problems up to 10.
- **Materials:** Small toys (dinosaurs, cars, farm animals), a piece of paper or small whiteboard, marker.

### Lesson Activities:

1. **Warm-Up (5 mins):** Do a few quick "put together" problems with your fingers. "Show me 2 fingers. Now show me 3 more. How many all together?"
2. **Main Activity: Dinosaur Tales (20 mins)**
  1. Set out the dinosaur toys. Start with a story: "There were 4 T-Rexes drinking at the lake." (Place 4 T-Rex toys). "Then, 2 Stegosauruses came to join them." (Place 2 Stegosaurus toys).
  2. Ask, "How many dinosaurs are at the lake all together?" Have Finley count them to find the answer (6).
  3. Write the matching number sentence:  $4 + 2 = 6$ .
  4. Now, it's Finley's turn! Ask him to be the storyteller. He gets to choose the toys and make up the story. For example, "There are 5 cars in the garage, and 3 more cars drive in."
  5. Help him set up the toys for his story, and then solve the problem together, writing the number sentence each time.
3. **Wrap-Up & Check for Understanding (5 mins):** Give Finley a number sentence, like  $3 + 5 = ?$ . Ask, "Can you tell a story about this problem using your toys?"

**Support Tip:** If creating a story is difficult, provide a template: "There are \_\_\_ animals. Then \_\_\_ more come. How many are there now?" He just has to fill in the blanks.

**Challenge Finley:** Try addition with three numbers. "3 raptors, 2 triceratops, and 1 T-Rex are in the forest. How many dinosaurs in all?"

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## Week 17: Addition Action! (Movement Game)

- **Learning Objective:** Finley will be able to solve addition problems by counting on from a number.
- **Materials:** Sidewalk chalk or masking tape for a number line (0-10), one die.

### Lesson Activities:

1. **Warm-Up (5 mins):** Review counting on. Say "Let's start at 6 and count 3 more. Ready? 6... 7, 8, 9!" Repeat a few times.
  2. **Main Activity: Number Line Leap (15-20 mins)**
    1. Create a large number line from 0 to 10 on the floor.
    2. Explain the game: "We're going to solve addition problems with our feet!"
    3. Give Finley an addition problem, like  $4 + 3$ . Have him stand on the number 4.
    4. Tell him the "+ 3" means he needs to take 3 hops forward. Have him hop and count aloud: "One... two... three!"
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5. Ask, "What number did you land on?" (7). "Great! 4 plus 3 equals 7!"
6. Now, use the die. Finley stands on a starting number (e.g., 2). He rolls the die. If he rolls a 5, he hops 5 spaces forward. He calls out the number he lands on to solve "2 + 5".
3. **Wrap-Up & Check for Understanding (5 mins):** Ask Finley to solve a problem without hopping. "If you start at 5 and hop 4 times, where will you land?" See if he can visualize it or count on his fingers.

**Support Tip:** For younger children, just do the hopping part without the die. You call out both numbers to keep it simple ("Start at 3, take 2 hops!").

**Challenge Finley:** Use two dice. He starts at 0, rolls both dice, adds them together (e.g., a 4 and a 2 means he needs to solve  $4+2$ ), and then takes that many hops (6 hops).

## Week 18: The Subtraction Snack Heist (Intro to Subtraction)

- **Learning Objective:** Finley will understand that subtraction means "taking away" and will be able to solve simple subtraction problems using concrete objects.
- **Materials:** 10 small snacks (crackers, fruit snacks), a plate, a "robber" puppet or stuffed animal.

### Lesson Activities:

1. **Warm-Up (5 mins):** Do a few quick addition problems with snacks (e.g., 2 crackers + 3 crackers).
2. **Main Activity: The Snack Robber (15 mins)**
  1. Place 5 crackers on a plate. "Look, Finley, you have 5 crackers for your snack."
  2. Introduce the puppet. "Oh no! Here comes the Snack Robber! He is going to take away 2 of your crackers!" Use the puppet to physically remove 2 crackers from the plate.
  3. Ask, "How many crackers are left?" Have him count the remaining crackers (3).
  4. Say the sentence: "You started with 5. The robber took away 2. Now you have 3 left."
  5. On paper, write the equation:  $5 - 2 = 3$ . Explain that the '-' sign means "take away" or "subtract."
  6. Repeat with different starting numbers. Let Finley be the Snack Robber sometimes!
3. **Wrap-Up & Check for Understanding (5 mins):** Set up 7 crackers. Say, "If the Snack Robber takes away 3, how many will be left?" Let him act it out and find the answer.

**Support Tip:** Keep the numbers small (under 5) to start. The focus is on the concept of "taking away," not complex counting.

**Challenge Finley:** Start with a number like 10. Ask, "If you have 10 crackers and you eat 4, how many are left?" Let him be the one to "eat" (take away) the crackers.

## Week 19: Bowling for Subtraction

- **Learning Objective:** Finley will be able to write and solve subtraction number sentences.
- **Materials:** 10 empty plastic bottles or paper towel tubes, a soft ball, paper, and marker.

**Lesson Activities:**

1. **Warm-Up (5 mins):** Use your fingers. "Hold up 7 fingers. Now put 3 down. How many are left?"
2. **Main Activity: Subtraction Bowling (20 mins)**
  1. Set up the 10 bottles as bowling pins. Say, "We are starting with 10 pins." Write "10" on the paper.
  2. Finley rolls the ball and knocks some pins down.
  3. Count how many pins fell. For example, if 4 pins fell, say, "You knocked down 4!" and write "- 4" next to the 10.
  4. Then, count how many pins are still standing. For example, 6 pins are standing. Say, "There are 6 left!" and complete the equation:  $10 - 4 = 6$ .
  5. Set the pins up and play again! Each round creates a new subtraction problem. Let Finley help write the numbers.
3. **Wrap-Up & Check for Understanding (5 mins):** After a great roll where he knocks down 7, ask, "We started with 10 and knocked down 7. How many do you think are left before we even count?"

**Support Tip:** Start with only 5 or 6 pins to work with smaller, more manageable numbers.

**Challenge Finley:** After he writes the subtraction sentence (e.g.,  $10 - 4 = 6$ ), ask him to write the related addition sentence (a "fact family"):  $6 + 4 = 10$ .

**Week 20: Disappearing Dinosaurs (Subtraction Stories)**

- **Learning Objective:** Finley will be able to create and solve subtraction story problems.
- **Materials:** Small toys (dinos, cars), a "hiding place" (like a box or under a blanket), paper, marker.

**Lesson Activities:**

1. **Warm-Up (5 mins):** Review the meaning of the plus (+) and minus (-) signs.
2. **Main Activity: Where Did They Go? (20 mins)**
  1. Start with a story. "There were 8 dinosaurs playing. Oh no, a volcano is erupting! 3 of them had to run and hide." Move 3 dinosaurs into the "hiding place."
  2. Ask, "How many dinosaurs are left?" Have him count the remaining 5.
  3. Write the subtraction sentence together:  $8 - 3 = 5$ .
  4. Now, let Finley be the storyteller. He chooses how many toys to start with. He tells a story about why some of them "disappear" (they go to sleep, drive away, hide).
  5. Help him act out the story and write the matching number sentence.
3. **Wrap-Up & Check for Understanding (5 mins):** Give him a number sentence like  $6 - 2 = ?$ . Ask, "Can you use the toys to tell a story about this problem?"

**Support Tip:** Use a very clear starting and ending point. A five-frame or ten-frame can help visually structure how many you start with and how many are gone.

**Challenge Finley:** Work backwards. Put 4 toys out. Say, "There are 4 left. We started with 9. How many must have hidden?" ( $9 - ? = 4$ ). This is a great introduction to algebraic thinking.

## Week 21: Shape Detectives (2D Shapes)

- **Learning Objective:** Finley will be able to identify and describe 2D shapes (circle, square, triangle, rectangle) by their attributes (sides and corners).
- **Materials:** Construction paper shapes (several of each), a "magnifying glass" (can be a real toy or just made from a paper tube), household objects (a book, a plate, a clock).

### Lesson Activities:

1. **Warm-Up (5 mins):** Sing a shape song (like "Twinkle Twinkle Little Star" but with shapes: "A square is a shape, it has four sides...").
2. **Main Activity: I Spy a Shape (20 mins)**
  1. Introduce Finley as a "Shape Detective." Give him his magnifying glass.
  2. Review the four main shapes: circle, square, triangle, rectangle. Lay out the paper shapes. For each one, count the sides and corners (vertices). Emphasize that a circle has 0 sides and 0 corners. Talk about how a square has 4 \*equal\* sides.
  3. The mission: Find these shapes in the real world!
  4. Call out a shape: "Detective Finley, find me something that is shaped like a rectangle!"
  5. He hunts around the room and might bring back a book. Use the magnifying glass to "inspect" it, counting its sides and corners to confirm it's a rectangle.
  6. Continue the hunt for all four shapes.
3. **Wrap-Up & Check for Understanding (5 mins):** Play "What am I?" Give clues: "I have 3 sides and 3 corners. What shape am I?" (A triangle). "I have no straight sides. What am I?" (A circle).

**Support Tip:** Focus on just two shapes at a time (e.g., circle and square) before introducing the others, to avoid confusion.

**Challenge Finley:** Introduce new shapes like an oval, hexagon, or rhombus. Have him draw the shapes he finds in a "detective notebook."

## Week 22: Building a 3D World (3D Shapes)

- **Learning Objective:** Finley will be able to identify 3D shapes (sphere, cube, cone, cylinder) and describe them as solid.
- **Materials:** 3D shape blocks or common household objects (a ball for a sphere, a block or die for a cube, a party hat or funnel for a cone, a can or paper towel roll for a cylinder), play-doh.

### Lesson Activities:

1. **Warm-Up (5 mins):** Quickly review 2D shapes. Ask, "What shape is flat like a piece of paper?"
2. **Main Activity: Shape Sculptors (20 mins)**
  1. Introduce the 3D shapes one by one. Hold up the sphere (ball) and the circle. Ask, "How are these different?" Guide him to understand that the sphere is "fat" or "solid," and the circle is "flat."
  2. Introduce the other shapes, comparing them to their 2D counterparts (cube vs. square). Use descriptive words: "A cube is made of many squares." "A cylinder has flat circles on the ends."

3. Talk about which shapes can roll and which can stack. Test each one!
  4. Give Finley play-doh and challenge him to become a "Shape Sculptor." Ask him to try and build each of the four 3D shapes. This is a great sensory way to feel the difference between flat faces and curved surfaces.
3. **Wrap-Up & Check for Understanding (5 mins):** Hand him one of the 3D objects (like the can). Ask, "What is this shape called? Do you think it will roll? Can we stack on top of it?"

**Support Tip:** Spend most of the time just playing with the objects and using the vocabulary. Don't worry about perfect memorization; focus on exploration and description.

**Challenge Finley:** Ask him to build a castle or a robot using only the 3D shapes. As he builds, ask him why he chose a certain shape. "Why did you use the cube for the bottom? Oh, because it's good for stacking!"

## Week 23: Dinosaur Measurement (Comparing Length)

- **Learning Objective:** Finley will be able to directly compare the length of two objects and use measurement vocabulary (longer, shorter, taller).
- **Materials:** Various dinosaur toys (or other toys of different lengths), a piece of string, a "starting line" (ruler or piece of tape).

### Lesson Activities:

1. **Warm-Up (5 mins):** Ask comparison questions. "Who is taller, you or me? Is your arm longer or shorter than your leg?"
2. **Main Activity: Dino Races (15-20 mins)**
  1. Line up two dinosaurs at the starting line. Ask Finley to predict, "Which dinosaur do you think is longer?"
  2. Show him how to check by making sure their tails (or noses) are perfectly lined up at the start. He can then see which one "sticks out" more.
  3. Introduce the vocabulary: "The T-Rex is **longer** than the Stegosaurus. The Stegosaurus is **shorter** than the T-Rex."
  4. Continue comparing pairs of dinosaurs.
  5. Now, introduce non-standard measurement. Pick one dinosaur (e.g., the raptor). Say, "Let's measure this string. How many raptors-long is it?" Line up the raptor toy again and again along the string, counting how many times it fits. "The string is 5 raptors-long!"
3. **Wrap-Up & Check for Understanding (5 mins):** Hand Finley two toys. Ask, "Can you show me which one is longer? Can you show me which one is shorter?"

**Support Tip:** Make sure he always lines up the objects at a common starting point. This is the most critical skill for direct comparison.

**Challenge Finley:** Give him three or four dinosaurs and ask him to put them in order from shortest to longest.

## Week 24: How Heavy Is It? (Comparing Weight)

- **Learning Objective:** Finley will be able to directly compare the weight of two objects and use measurement vocabulary (heavier, lighter).
- **Materials:** A simple balance scale (can be homemade with a hanger, string, and two paper cups), various small objects of different weights (e.g., a cotton ball, a rock, a toy car, a crayon, a block).

### Lesson Activities:

1. **Warm-Up (5 mins):** Review longer/shorter. Hold up a pencil and a crayon. "Which is longer?"
2. **Main Activity: The Weight Detective (20 mins)**
  1. Introduce the balance scale. Show him how it's perfectly balanced when empty.
  2. Give him two objects, like a cotton ball and a rock. Ask, "Which one do you think is heavier?" This is his hypothesis.
  3. Let him hold one in each hand to feel the difference first. Introduce the words "heavier" and "lighter."
  4. Now, test his hypothesis on the scale. Place the cotton ball in one cup and the rock in the other. The scale will dip down on the side with the rock.
  5. Explain: "The side that goes down is **heavier**. The side that goes up is **lighter**. The rock is heavier than the cotton ball."
  6. Let Finley be the detective. He chooses two objects, makes a guess, and then uses the scale to check his answer.
3. **Wrap-Up & Check for Understanding (5 mins):** Hand him two final objects (like a block and a crayon). Ask, "Which one do you predict will be heavier? Why do you think so?" Then test it one last time.

**Support Tip:** If you don't have a scale, you can just use hands. The goal is the concept and vocabulary, not precision. The scale just makes it more visual and fun.

**Challenge Finley:** Ask him to find an object that is "heavier than the crayon but lighter than the rock." This requires more complex comparison and problem-solving.

## Week 25: Math Carnival (Review and Celebration)

- **Learning Objective:** Finley will demonstrate his skills in counting, addition, subtraction, shapes, and measurement through a series of fun games.
- **Materials:** All the materials from the past few weeks! (Blocks, toys, number cards, dice, scale, shapes, etc.), small prizes or stickers (optional).

### Lesson Activities:

1. **Set up "Carnival Booths" (different stations around the room):**
  - **Booth 1: Number Toss.** Lay out number cards 10-20. Finley tosses a beanbag. He has to say the number it lands on and build it with blocks.
  - **Booth 2: Addition Bowling.** Set up 10 pins. He rolls a ball. He has to say an addition sentence for the pins. (e.g., "4 down plus 6 up equals 10 total pins!").
  - **Booth 3: Subtraction Smash.** Make 8 small balls of play-doh. He "smashes" 3 of them. He has to say the subtraction sentence: "8 take away 3 is 5."
  - **Booth 4: Shape Hunt.** Quickly hide a 2D and 3D shape. He has 30 seconds to find the

"triangle" or the "sphere."

- **Booth 5: Weight Guess.** Put two objects by the balance scale. He has to guess which is heavier, then check his work.

2. **Main Activity: Carnival Fun! (25 mins)**

Let Finley move from booth to booth, playing the games. This is a celebration of everything he has learned. You are there to guide and cheer him on. Hand out a sticker or a small prize after he completes each booth's challenge.

3. **Wrap-Up (5 mins):** Celebrate his success! Ask him, "What was your favorite math game we played today? What part of math do you think is the most fun?" This reinforces a positive attitude toward learning.