

NUMBER SENSE BOOKLET





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Dear Parents:

This Math Before Bed booklet is a collection of prompts that can inspire mathematical discussions that you and your children can have before bed, at dinner, or anytime.

Each page shows you and your child a perplexing problem. Sometimes there is one right answer and sometimes there are **many** right answers. The purpose of each question is to generate a discussion about HOW your child determined an answer. If you find one answer, try to find another. Allow you child to lead the discussion.

Accompanying each prompt is a Parent Guide. The guide gives you helpful verbal prompts to keep the conversation going. The parent guide also shows you how that question connection to curriculum expectations.

Encouraging your child to share their math understanding out loud helps clarify their thinking while at the same time gives you a window into their understanding of the mathematical ideas.

You can listen to a real conversation between a father and his two 6 year old daughters as an example at this link: <u>https://mathbeforebed.com/start-here/</u>

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Ask your child these questions to keep the discussion going.

- What do you notice?
- How could you count the circles differently?

Curriculum Progression

Number Sense						
count forward by 1's, 2's, 5's, and 10's to 100, using a variety of tools and strategies	count forward by 1's, 2's, 5's, 10's, and 25's to 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10	count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies				

Parent Guide

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Ask your child these questions to keep the discussion going.

- How are the covered numbers related?
- How can you determine the covered numbers in a new way?
- Cover a number and have your child tell you what number you covered.

Curriculum Progression

Number Sense						
count forward by 1's, 2's, 5's, and 10's to 100, using a variety of tools and strategies	count forward by 1's, 2's, 5's, 10's, and 25's to 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10	count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies				

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1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44		46	47	48	49	50
51	52	53	54		56	57	58	59	60
61	62	63	64		66	67	68	69	70
71	72	73	74		76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

4 Numbers in the hundreds grid are covered up Which ones? How do you know?

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44		46	47	48	49	50
51	52	53	54		56	57	58	59	60
61	62	63	64		66	67	68	69	70
71	72	73	74		76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

4 Numbers in the hundreds grid are covered up Which ones? How do you know?

Ask your child these questions to keep the discussion going.

- Which side is easier to count?
- What is the value of the coins on each side?
- Can you replace any coins to make the number of coins larger? Smaller? Which coins would you replace?

Curriculum Progression



Parent Guide

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- Which side is easier to count?
- What is the value of the coins on each side?
- Can you replace any coins to make the number of coins larger? Smaller? Which coins would you replace?

Number Sense						
identify and describe various coins (i.e., penny, nickel, dime, quarter, \$1 coin, \$2 coin), using coin manipulatives or draw- ings, and state their value.	estimate, count, and represent (using the ¢ symbol) the value of a collection of coins with a maximum value of one dollar.	represent and describe the relationships between coins and bills up to \$10.				

What do you noice? What do you wonder?





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What do you noice? What do you wonder?





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Ask your child these questions to keep the discussion going.

- Why do you prefer those times?
- Which time lets you stay up later?
- How many hours of sleep would you get?

Curriculum Progression

Measurement						
read demonstration digital and	tell and write time to the quarter-	read time using analogue clocks, to				
analogue clocks, and use them to	hour, using demonstration digital	the nearest five minutes, and using				
identify bench- mark times.	and analogue clocks.	digital clocks.				

Parent Guide

4

Ask your child these questions to keep the discussion going.

- Why do you prefer those times?
- Which time lets you stay up later?
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Taylor and Jaden's bedtime and wake up time are shown. Which do you prefer?



Taylor and Jaden's bedtime and wake up time are shown. Which do you prefer?

Ask your child these questions to keep the discussion going.

- How many dots are on the left side of the lady bug? How did you count them?
- Why can't the answer be 10 dots?

Curriculum Progression



Parent Guide 5

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- How many dots are on the left side of the lady bug? How did you count them?
- Why can't the answer be 10 dots?

Curriculum Progression

Patterning & Algebra determine, through investigation determine the missing number in determine, the missing number in using a "balance" model and whole equations involving addition and equations involving addition and numbers to 10, the number of subtraction subtraction of one- and two-digit identical objects that must be added to 18, using a variety of tools and numbers, using a variety of tools or subtracted to establish equality. strategies. and strategies.



How many more spots are needed on the right side of the lady bug to match the other side?



How many more spots are needed on the right side of the lady bug to match the other side?

Ask your child these questions to keep the discussion going.

- How many are in each of your groups?
- How many groups did you make?
- Try making groups of 2. How many groups will you make?

Curriculum Progression

-	Number Sense	
compose and decompose numbers up to 20 in a variety of ways, using concrete materials.	represent and explain, through investigation using concrete materials and drawings, division as the sharing of a quantity equally	relate multiplication of one-digit numbers and division by one-digit divisors to real- life situations, using a variety of tools and strategies.

Parent Guide

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Organize the robots in groups of equal number Share your thinking



Organize the robots in groups of equal number Share your thinking

Ask your child these questions to keep the discussion going.

- Another child counted the squares in a different way than you did, can you see how they might have counted?
- How many squares are "missing" to complete a rectangle?

Curriculum Progression

-	Number Sense	
count forward by 1's, 2's, 5's, and 10's to 100, using a variety of tools and strategies	count forward by 1's, 2's, 5's, 10's, and 25's to 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10	count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies

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Number Sense count forward by 1's, 2's, count forward by 1's, 2's, count forward by 1's, 2's, 5's, and 10's to 100, using a 5's, 10's, and 100's to 1000 5's, 10's, and 25's to 200, variety of tools and using number lines and from various starting strategies hundreds charts, starting points, and by 25's to 1000 from multiples of 1, 2, 5, starting from multiples of and 10 25, using a variety of tools and strategies

Count the squares. How did you count them?



Count the squares. How did you count them?

Ask your child these questions to keep the discussion going.

- How many triangles do you see?
- What other shapes do you see?
- How many triangles would we need to cover the red shapes?
- How many triangles would we need to cover the blue shapes?

Curriculum Progression

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Parent Guide

Ask your child these questions to keep the discussion going.

- What do you notice?
- What do you wonder?
- How did you know?
- Another child made a different pattern. What could it look like?

Number Sense			
count forward by 1's, 2's, 5's, and 10's to 100, using a variety of tools and strategies	count forward by 1's, 2's, 5's, 10's, and 25's to 200, using number lines and hundreds charts, starting from multiples of 1, 2, 5, and 10	count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies	





How many?

Ask your child these questions to keep the discussion going.

- What is the total value of coins showing already?
- How many different answers can you come up with?

Curriculum Progression

Number Sense			
identify and describe various coins (i.e., penny, nickel, dime, quarter, \$1 coin, \$2 coin), using coin manipulatives or draw- ings, and state their value.	estimate, count, and represent (using the ¢ symbol) the value of a collection of coins with a maximum value of one dollar.	represent and describe the relationships between coins and bills up to \$10.	

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There are two mystery coins in the piggy bank.

What could the coins be to make the total amount of money greater than \$1



There are two mystery coins in the piggy bank.

What could the coins be to make the total amount of money greater than \$1

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Ask your child these questions to keep the discussion going.

- What number would you place in the exact middle?
- What other numbers can you place on the line easily?
- What number would be hard to place? Why?

Curriculum Progression



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- What number would you place in the exact middle?
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Number Sense				
represent, compare, and order whole numbers to 50, using a variety of tools.	represent, compare, and order whole numbers to 100, including money amounts to 100¢, using a variety of tools.	represent, compare, and order whole numbers to 1000, using a variety of tools.		





