

# Grade 3: Midyear

## Universal Screener for Number Sense – **Modified for MOST**

Interview – Detailed Scripts and Rubrics, *print 1 copy/test*

### Number Word Sequence/Place Value 3.NBT.A.2 Number Sense: Backward Number Word Sequences

1. **“Let’s do some counting. Start at the number three hundred-two and count backward. I will tell you when to stop.”** Stop at 298. If the student makes a minor mistake that you think might be corrected on a second attempt ask the student. **“Let me hear that one more time.”**  
- If still incorrect, **“Count forward starting at 98”** (stop at 112)

3	2	1	0
Student counts accurately on first attempt. (minor self corrections allowed)	Students counts accurately but with uncertainties; correct on second attempt, or on first attempt with significant pauses or self corrections	Counts from 98-112.  Student does not accurately count from 302-298.	Does not accurately count from 98-112.

**Commentary:** Backward counts across decade numbers is a skill that is not a “memorization” of the number sequence but reveals an understanding of the number system. It is for that reason that this task aligns with Number in Base Ten.

### Represent Multiplication: 3.OA.A.1 Number Sense: Model Multiplication with Materials

2. Have counters available for the student (more than 12). Present the expression  $3 \times 4$ . **“Read this.”** Correct the student if they misread. **“How could you use these to show 3 times 4?”** Probe the student briefly to ensure that they understand that they have created groups.

3	2	1
Student creates a 3 by 4 array or 3 groups of 4, or 4 groups of 3 and explains clearly.	Student does show three groups of four or four groups of three but only after additional prompting. <b>Or</b> student rotely creates an array or some other accurate configuration, but cannot explain repetitions of equal groupings.	Student does not show <i>either</i> 3 groups of 4 or 4 groups of three.

**Commentary:** The ability to create a model that matches multiplication (and division) problems is an excellent indicator of a conceptual understanding. This learning is essential to the work of third grade. Any students who are unsuccessful should be given ample opportunities to learn and practice this idea. Not that the rote skill of building groups and/or arrays is a stepping stone in the correct direction. Continued work with visual models, along with opportunities to discuss these visual models, supports the conceptual development.

A common thing is for students to create a group of three and a group of 4, then to attempt to somehow put an x. Usually, the explanation falls apart at this point, yet it isn't unusual that the student has memorized the answer of 12. Score as level 1 if the student is unable to create a multiplicative model.

This problem is not assessing whether the student knows the answer 12. It is about whether the student creates a concrete representation of *why*  $3 \times 4$  is 12. For that reason, if a student says the answer is 12, yet has not created a configuration that reflects 12, it is OK to probe. **"I see three here, and four here. You say the answer is 12. I don't see 12 anywhere. Can you show me how this makes 12?"** (See score of 2.).

Subtraction with Addition Scaffold: 3.NBT.A.2 Number Sense: Subtraction – Mental Math

3. Present the Card 200 – 198 and say, **"Read this."** Check to ensure that the student has read the problem accurately. **"How much is 200 minus 198?"**
- If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **"It looks like you are trying to solve the problem the paper and pencil way. Do you have another way you might use to solve this problem?"**
  - If the student is unable to solve  $200 - 198$ , present the expression,  $198 + 2$ . **"Could you use this to help you?"**

3	2	1
Student solves without the need for additional prompt.	Student can solve $200 - 198$ after presented with $198 + 2$	Student cannot solve even when supported with $198 + 2$

**Commentary:** The continued conceptualization of differences and place value are the targets of this task. Students who understand this problem well will choose to count up from 198 to 200 to find the difference, or count back 199, 198 or will simply know that the  $8 + 2$  is 10 and so therefore the answer is two.

Addition with Scaffold: 3.NBT.A.2 Number Sense: Addition – Mental Math

Present the expression  $299 + 102$ . **“Read this card.”** Check to ensure that the student has read the problem accurately. Correct students who do not read it correctly. **“How much is 299 plus 102?”** - If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **“It looks like you are trying to solve the problem the paper and pencil way. Do you have another way you might use to solve this problem?”**

- If student is unable to solve, present the card  $299 + 2$  with the first card. **“Could you use this to help you?”**

3	2	1
Student answers 401 without need for additional prompt.	Student can solve after presented with $299 + 2$ .	Student cannot solve even when supported with $299 + 2$ .
<b>Commentary:</b> The ability of students to coordinate hundreds, tens, and ones represents an important developmental milestone for students. Providing anchor problems for students to develop mental anchors can support students who are developing this ability.		

**W1. Write a Multiplication Story: 3.OA.A.1** Number Sense: Problem Posing – Multiplication

3	2	1
The story directly matches the multiplication situation, showing either 8 groups of 4 or 4 groups of 8 and includes a question that matches the situation.	The story is a multiplicative situation but includes slight errors in the syntax or in the formation of the question.	The situation is not multiplicative (e.g. the story is additive).

**W2. Write a Division Story: 3.OA.A.2** Number Sense: Problem Posing – Division

3	2	1
The story directly matches the division situation, showing either a partitive situation (e.g. 56 things in 8 groups, how many in each group?) or quotative (e.g. 56 things with 8 in each group, how many groups?) Story includes a question that matches the story.	The story represents a division situation but includes slight errors in the syntax or in the formation of the question.	The situation is not division (e.g. the story is subtractive).

**W3. Three Equal Parts of a Circle: 3.NF.A.1** Number Sense: Fractions – Partitioning

3	2	1
The student divides the circle approximately accurately into 3 equal parts.	The student has used a method which will result in equal parts, but the parts are significantly disproportionate (i.e. one piece is too big)	The method used will not result in thirds. (e.g. the student use a vertical line to divide the circle).

**W4. Fourths of a Rectangle: 3.NF.A.1** Number Sense: Fractions – Partitioning

3	2	1
The student divides the rectangle into 4 approximately equal parts.	The student has used a method which will result in equal parts, but the parts are significantly disproportionate (i.e. one piece is too big)	The student has not made 4 equal parts, or the sizes of the parts are significantly disproportionate.

**W5. Add: 3.NBT.A.2** Number Sense: Computation -Addition

3	2	1
Student solves both problems accurately, and clearly justifies the answer.	Students solves both of the problems correctly, but can only solve using algorithm Or - student has one correct answer with a non-algorithm strategy.	Both answers incorrect.
<b>Commentary:</b> These problems are included to ensure that students have flexible strategies for solving addition tasks.		

**W6. Subtract: 3.NBT.A.2** Number Sense: Computation -Subtraction

3	2	1
Student solves both problems accurately, and clearly justifies the answer.	Student solves both of the problems correctly, but algorithm is the only strategy Or – student has one correct answer with a non-algorithm strategy.	Both answers incorrect.
<b>Commentary:</b> These problems are included to ensure that students have flexible strategies for solving subtraction tasks.		

# Grade 3: Midyear

## Universal Screener for Number Sense – **Modified for MOST**

Quick Script, *print 1 copy/test administrator*

### Number Word Sequence/Place Value

1. **“Let’s do some counting. Start at the number 302 and count backward. I will tell you when to stop.”**  
Stop at 298.
  - If the student makes a minor mistake on their first attempt second attempt, say, **“Let me hear that one more time. Start at the number 302 and count backward.”**
  - If the student is still unsuccessful say, **“This time let’s count forward. Start at the number 98 and count up. I will tell you when to stop.”** (Stop at 112)

### Represent Multiplication

2. Have counters available for the student (more than 12). Present the expression  $3 \times 4$ . **“Read this.”**  
Correct the student if they misread.  
**“How could you use these to show 3 times 4?”** Probe the student briefly to ensure that they understand that they have created groups.

### Subtraction with Addition Scaffold

3. **“Read this,”** present  $200 - 198$ . Check to ensure that the student has read the problem accurately.  
**“How much is 200 minus 198?”**

If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **“It looks like you are trying to solve the problem the paper and pencil way. Do you have another way you might use to solve this problem?”** If the student is unable to solve  $200 - 198$ , present the expressions,  $198 + 2$ . **“Could you use this to help you?”**

### Addition with Scaffold

4. Present the expression  $299 + 102$ . **“Read this card.”** Check to ensure that the student has read the problem accurately. **“How much is 299 plus 201?”**

If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **“It looks like you are trying to solve the problem the paper and pencil way. Do you have another way you might use to solve this problem?”** If student is unable to solve, present the card  $299 + 2$  with the first card. **“Could you use this to help you?”**

# Grade 3: Midyear

## Universal Screener for Number Sense **Modified for MOST**

Interview Note Catcher, *print 1 copy/student*

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Language: English  Spanish  Other:  \_\_\_\_\_

Number Word Sequence (Place Value)	score
<p>1. Count back from 302 (stop at 298) If unsuccessful, count up 98 – 112 <b>-No materials</b></p> <p><input type="checkbox"/> correct: 3 pts <input type="checkbox"/> correct 2<sup>nd</sup> attempt or uncertain: 2 pts <input type="checkbox"/> counts 98 – 112 1pt <input type="checkbox"/> incorrect count 98 – 112 0 pts</p>	
Operations and Algebraic Thinking	score
<p>2. Show 3 x 4 <b>-15 counters</b> <b>-Expression card</b></p> <p><input type="checkbox"/> correct: 3 pts <input type="checkbox"/> correct after prompting or rote array construction: 2pts <input type="checkbox"/> incorrect: 1pt</p>	

Numbers and Operations in Base Ten	score
<p>3. <math>200 - 198</math> (give <math>198 + 2</math> if necessary)            -Expression cards</p> <p><input type="checkbox"/> solves: 3pts <input type="checkbox"/> solves with additional prompt: 2 pts <input type="checkbox"/> cannot solve: 1 pt</p>	
<p>4. <math>299 + 102</math> (give <math>299 + 2</math>) if necessary            -Expression cards</p> <p><input type="checkbox"/> solves: 3pts <input type="checkbox"/> solves with additional prompt: 2 pts <input type="checkbox"/> cannot solve: 1 pt</p>	

1. "Tell me a story problem for  $8 \times 4 = 32$ ." Present expression card.

Capture student's story in writing

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2. "Tell me a story problem for  $56 \div 8 = 7$ ." Present expression card.

Capture student's story in writing

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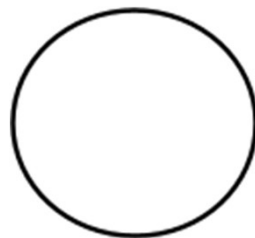
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3. Say, "Three children want to share a cookie. Draw lines to show how to cut the cookie so each child gets the same amount" (Present the card for student to write on. Save as an artifact)



4. Say, "Color one-fourth of the rectangle" (Present the card for student to write on. Save as an artifact)





5. Say, "Read the problem. Solve it." (Present each problem on the corresponding card)

$74 + 48 =$

$456 + 67 =$

"Tell me how you solved it." Write the student's solution strategy for each problem.

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5. Say, "Read the problem. Solve it." (Present each problem on the corresponding card)

$124 - 56 =$

$92 - 85 =$

"Tell me how you solved it." Write the student's solution strategy for each problem.

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**3<sup>rd</sup> Grade Midyear Rubric – Modified for MOST**

Well Below Basic	Below Basic	Basic	Proficient
0 – 9	10– 15	16 – 23	24 – 30

# Grade 3: Midyear - Spanish

## Universal Screener for Number Sense – **Modified for MOST**

Interview – Detailed Scripts and Rubrics, *print 1 copy/test*

Number Word Sequence/Place Value 3.NBT.A.2 Number Sense: Backward Number Word Sequences

1. **“Vamos a contar. Comienza del número 302 y cuenta hacia atrás. Yo te avisaré cuando parar”** Stop at 298. If the student makes a minor mistake that you think might be corrected on a second attempt ask the student. **“Déjame escuchar eso. una vez mas”**  
 - If still incorrect, **“Cuenta hacia adelante. Comienza en 98”** (stop at 112)

3	2	1	0
Student counts accurately on first attempt. (minor self corrections allowed)	Students counts accurately but with uncertainties; correct on second attempt, or on first attempt with significant pauses or self corrections	Counts from 98-112.  Student does not accurately count from 302-298.	Does not accurately count from 98-112.

**Commentary:** Backward counts across decade numbers is a skill that is not a “memorization” of the number sequence but reveals an understanding of the number system. It is for that reason that this task aligns with Number in Base Ten.

Represent Multiplication: 3.OA.A.1 Number Sense: Model Multiplication with Materials

2. Have counters available for the student (more than 12). Present the expression  $3 \times 4$ . **“Lee esto.”** Correct the student if they misread. **“¿Cómo podrías usar esto para demostrar 3 veces 4?”** Probe the student briefly to ensure that they understand that they have created groups.

3	2	1
Student creates a 3 by 4 array or 3 groups of 4, or 4 groups of 3 and explains clearly.	Student does show three groups of four or four groups of three but only after additional prompting. <b>Or</b> student rotely creates an array or some other accurate configuration, but cannot explain repetitions of equal groupings.	Student does not show <i>either</i> 3 groups of 4 or 4 groups of three.

**Commentary:** The ability to create a model that matches multiplication (and division) problems is an excellent indicator of a conceptual understanding. This learning is essential to the work of third grade. Any students who are unsuccessful should be given ample opportunities to learn and practice this idea. Not that the rote skill of building groups and/or arrays is a stepping stone in the correct direction. Continued work with visual models, along with opportunities to discuss these visual models, supports the conceptual development.

A common thing is for students to create a group of three and a group of 4, then to attempt to somehow put an x. Usually, the explanation falls apart at this point, yet it isn't unusual that the student has memorized the answer of 12. Score as level 1 if the student is unable to create a multiplicative model.

This problem is not assessing whether the student knows the answer 12. It is about whether the student creates a concrete representation of *why*  $3 \times 4$  is 12. For that reason, if a student says the answer is 12, yet has not created a configuration that reflects 12, it is OK to probe. **“Veo tres aquí y cuatro aquí. Dice que la respuesta es 12. No veo 12. ¿Puede demostrar cómo hace 12?”** (See score of 2.).

Subtraction with Addition Scaffold: 3.NBT.A.2 Number Sense: Subtraction – Mental Math

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3. Present the Card  $200 - 198$  and say, **“Lee esto”** Check to ensure that the student has read the problem accurately. **“¿Cuánto es 200 menos 198?”**

- If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **“Parece que estás tratando de resolver el problema en la manera de papel y lápiz. ¿Tienes otra manera que podrías usar para resolver este problema?”**
- If the student is unable to solve  $200 - 198$ , present the expression,  $198 + 2$ . **“¿Podrías usar esto para ayudarte?”**

3	2	1
Student solves without the need for additional prompt.	Student can solve $200 - 198$ after presented with $198 + 2$	Student cannot solve even when supported with $198 + 2$

**Commentary:** The continued conceptualization of differences and place value are the targets of this task. Students who understand this problem well will choose to count up from 198 to 200 to find the difference, or count back 199, 198 or will simply know that the  $8 + 2$  is 10 and so therefore the answer is two.

Addition with Scaffold: 3.NBT.A.2 Number Sense: Addition – Mental Math

4. Present the expression  $299 + 102$ . **“Lee esta tarjeta.”** Check to ensure that the student has read the problem accurately. Correct students who do not read it correctly. **“¿Cuánto es 299 más 102?”** - If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **Parece que estás tratando de resolver el problema en la manera de papel y lápiz. ¿Tienes otra manera que podrías usar para resolver este problema?**
- If student is unable to solve, present the card  $299 + 2$  with the first card. **¿Podrías usar esto para ayudarte?”**

3	2	1
Student answers 401 without need for additional prompt.	Student can solve after presented with $299 + 2$ .	Student cannot solve even when supported with $299 + 2$ .
<p><b>Commentary:</b> The ability of students to coordinate hundreds, tens, and ones represents an important developmental milestone for students. Providing anchor problems for students to develop mental anchors can support students who are developing this ability.</p>		

**Additional Interview Tasks:** Standards Alignment and Scoring Guides, *print 1 copy/test administrator*  
**W1. Write a Multiplication Story: 3.OA.A.1** Number Sense: Problem Posing – Multiplication

3	2	1
The story directly matches the multiplication situation, showing either 8 groups of 4 or 4 groups of 8 and includes a question that matches the situation.	The story is a multiplicative situation but includes slight errors in the syntax or in the formation of the question.	The situation is not multiplicative (e.g. the story is additive).

**W2. Write a Division Story: 3.OA.A.2** Number Sense: Problem Posing – Division

3	2	1
The story directly matches the division situation, showing either a partitive situation (e.g. 56 things in 8 groups, how many in each group?) or quotative (e.g. 56 things with 8 in each group, how many groups?) Story includes a question that matches the story.	The story represents a division situation but includes slight errors in the syntax or in the formation of the question.	The situation is not division (e.g. the story is subtractive).

**W3. Three Equal Parts of a Circle: 3.NF.A.1** Number Sense: Fractions – Partitioning

3	2	1
The student divides the circle approximately accurately into 3 equal parts.	The student has used a method which will result in equal parts, but the parts are significantly disproportionate (i.e. one piece is too big)	The method used will not result in thirds. (e.g. the student use a vertical line to divide the circle).

**W4. Fourths of a Rectangle: 3.NF.A.1** Number Sense: Fractions – Partitioning

3	2	1
The student divides the rectangle into 4 approximately equal parts.	The student has used a method which will result in equal parts, but the parts are significantly disproportionate (i.e. one piece is too big)	The student has not made 4 equal parts, or the sizes of the parts are significantly disproportionate.

**W5. Add: 3.NBT.A.2** Number Sense: Computation -Addition

3	2	1
Student solves both problems accurately, and clearly justifies the answer.	Students solves both of the problems correctly, but can only solve using algorithm Or - student has one correct answer with a non-algorithm strategy.	Both answers incorrect.
<b>Commentary:</b> These problems are included to ensure that students have flexible strategies for solving addition tasks.		

**W6. Subtract: 3.NBT.A.2** Number Sense: Computation -Subtraction

3	2	1
Student solves both problems accurately, and clearly justifies the answer.	Student solves both of the problems correctly, but algorithm is the only strategy Or – student has one correct answer with a non-algorithm strategy.	Both answers incorrect.
<b>Commentary:</b> These problems are included to ensure that students have flexible strategies for solving subtraction tasks.		

# Grade 3: Midyear - Spanish

## Universal Screener for Number Sense – **Modified for MOST**

Quick Script, *print 1 copy/test administrator*

### Number Word Sequence/Place Value

1. **“Vamos a contar. Comienza del número 302 y cuenta hacia atrás. Yo te avisaré cuando parar”**  
Stop at 298.

- If the student makes a minor mistake on their first attempt second attempt, say, **“Déjame escuchar eso. una vez mas. Vamos a contar. Comienza del número 302 y cuenta hacia atrás.”**
- **If the student is still unsuccessful say, “Esta vez, cuenta hacia adelante. Comienza en 98.”**  
(Stop at 112)

### Represent Multiplication

2. Have counters available for the student (more than 12). Present the expression  $3 \times 4$ . **“Lee esto.”**  
Correct the student if they misread.

**“¿Cómo podrías usar esto para demostrar 3 veces 4?”** Probe the student briefly to ensure that they understand that they have created groups.

### Subtraction with Addition Scaffold

3. **“Lee esto,”** present  $200 - 198$ . Check to ensure that the student has read the problem accurately.  
**“¿Cuánto es 200 menos 198?”**

If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, **“It looks like you are trying to solve the problem the paper and pencil way. Do you have another way you might use to solve this problem?”** If the student is unable to solve  $200 - 198$ , present the expressions,  $198 + 2$ . **“Could you use this to help you?”**

### Addition with Scaffold

4. Present the expression  $299 + 102$ . **“Lee esto”** Check to ensure that the student has read the problem accurately. **“¿Cuánto es 299 más 102?”**

If the student begins to attempt the use of a traditional algorithm (usually evident when the student starts to draw the problem with their finger on the table.) Say, , **“Parece que estás tratando de resolver el problema en la manera de papel y lápiz. ¿Tienes otra manera que podrías usar para resolver este problema?”** If student is unable to solve, present the card  $299 + 2$  with the first card . **“¿Podrías usar esto para ayudarte?”**

# Grade 3: Midyear - Spanish

Universal Screener for Number Sense **Modified for MOST**

Interview Note Catcher, *print 1 copy/student*

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Teacher: \_\_\_\_\_

Language: English  Spanish  Other:  \_\_\_\_\_

Number Word Sequence (Place Value)	score
<p>1. Count back from 302 (stop at 298) If unsuccessful, count up 98 – 112 -No materials</p> <p><input type="checkbox"/> correct: 3 pts <input type="checkbox"/> correct 2<sup>nd</sup> attempt or uncertain: 2 pts <input type="checkbox"/> counts 98 – 112 1pt <input type="checkbox"/> incorrect count 98 – 112 0 pts</p>	
Operations and Algebraic Thinking	score
<p>2. Show <math>3 \times 4</math> -15 counters -Expression card</p> <p><input type="checkbox"/> correct: 3 pts <input type="checkbox"/> correct after prompting or rote array construction: 2pts <input type="checkbox"/> incorrect: 1pt</p>	

Numbers and Operations in Base Ten	score
<p>3. <math>200 - 198</math> (give <math>198 + 2</math> if necessary)            -Expression cards</p> <p><input type="checkbox"/> solves: 3pts <input type="checkbox"/> solves with additional prompt: 2 pts <input type="checkbox"/> cannot solve: 1 pt</p>	
<p>4. <math>299 + 102</math> (give <math>299 + 2</math>) if necessary            -Expression cards</p> <p><input type="checkbox"/> solves: 3pts <input type="checkbox"/> solves with additional prompt: 2 pts <input type="checkbox"/> cannot solve: 1 pt</p>	

1. “Díme un cuento de matemáticas que demuestra  $8 \times 4 = 32$ .” Present expression card.

Capture student’s story in writing

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2. "Dime un cuento de matemáticas que demuestra  $56 \div 8 = 7$ ." Present expression card.

Capture student's story in writing

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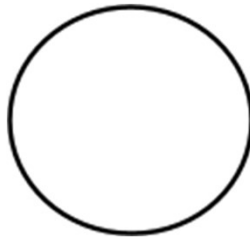
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3. Say, "Tres niños quieren compartir una galleta. Dibuja líneas para mostrar cómo deben cortarla para cada niño recibirá una cantidad igual." (Present the card for student to write on. Save as an artifact)



4. Say, "Colorea un cuarto del rectángulo." (Present the card for student to write on. Save as an artifact)



$$299 + 102$$

$$198 + 2$$

$$200 - 198$$

$$3 \times 4$$

$$299 + 2$$



$$56 \div 8 = 7$$

$$74 + 48$$

$$124 - 56$$

$$8 \times 4 = 32$$

$$456 + 67$$

$$92 - 85$$

