Grade 3: Spring

Universal Screener for Number Sense

Instructions

Interview:

Interviews should be conducted one-on-one with students. Do not provide paper and pencil, and only provide materials as directed.

This can be done by sitting with a single student and working through all of the questions, or can be done one or two questions at a time. For example, teachers might find that they can quickly and easily assess counting by moving around the room to listen to students count and then, later, in a separate session, set up a table with the necessary materials and pull students one at a time to complete those tasks that use materials.

- **Who?** Whenever possible, the teacher who works most directly with the child should be the one to administer the interview portion of the screener and score the written portion.
- **Limit Questioning:** It is usually best to attempt to limit questioning and move at a steady pace through the tasks. This improves the efficiency, but also helps to ensure the consistency of administration, and therefore the reliability of the results.
- **Be flexible.** You might find that you can work most efficiently by administering one task at a time, moving from student to student rather than having them come to a station. This can be done with the counting tasks and numeral ID task. Users of Forefront will find that the interview tool can be switched to focus on tasks. Here is a help article for using the interview tool.
- **Collaborate.** Sometimes groups of students can be reorganized in creative ways to provide one teacher with the ability to sit with individual students.
- **Watch carefully and take notes**. Nuances in behaviors that reveal how students make sense.
- **Video tape.** Although it is not necessary for the administration of the assessment, recording an assessment or two to discuss with colleagues can be an excellent way to learn together and build consistency in administration and scoring.

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Interview - Detailed Script and Rubrics, *print 1 copy/test*

1. 7 by 3 Partial Array of Cans: 3.OA.A.1

Number Sense: Multiplication and Division: Mental Math

"Here is a box for cans. The box holds 7 rows with 3 cans in each row. Some cans have already been put into the box. How many cans will there be when the whole box has been filled?" If you are unsure whether the student applied multiplication (either 7 x 3 or 3 x 7) to solve the problem, ask them, "How did you solve that?"

3	2	1
Student uses multiplication to solve. This could also be using another fact to help them to solve. For example, if the student uses 3 x 5 and then adds 3 x 2 or the student uses 7 x 2 + 7. These are all indicative of multiplicative thinking.	Student uses skip counting, repeated addition, or a count-by-one method to solve.	Incorrect
Commentary: This task is intended to assess whether students recognize this as a situation that is best solved using multiplication. In the student's explanation. Listen for an indication that there are 3 sets of 7 or 7 sets of 3 in the box.		

2. Subtract 300 – 102 : 3.NBT.A.2

Number Sense: Place Value – Mental Math

a. "**Read this."** Present 300 – 102. Ensure that the student has read the problem correctly and correct them if they have not. **"How much is three hundred minus one hundred two?"**
   - If the student is unable or incorrect, present the card 300 – 2. **"Could this help you?"**

b. "**Read this."** Present 72 – 34. Ensure that the student has read the problem correctly and correct them if they have not. **"How much is seventy-two minus thirty-four?"**
   - If the student is unable or incorrect, present the card 72 – 4. **"Could this help you?"**

3	2	1
Student solves on first attempt. (198)/(38)	Incorrect at first, but self-corrects when presented with the additional prompt. (300 – 2)/(72 – 4) OR Student replicates a traditional algorithm to solve.	Incorrect on both attempts.
Commentary: This problem seeks to assess the student's understanding of the hundreds or tens and ones involved. Listen for student's explanations. If a student replicates a traditional algorithm to solve the problem, ask them why that strategy works and/or ask them if they have another way to solve the problem. Because a traditional algorithm is a much more cumbersome way to solve this problem, even if the student solves the problem correctly and can explain it, score as a level 2 response. The reason being that the student, rather than thinking about the numbers and choosing a method, the student is applying a rote procedure without first making sense.		

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Modified for MOST – Spring 2025

Use with **CONTINUING** students who were given the Grade 3 Modified MIDYEAR assessment in Fall 2024 (intended for continuing 4th/5th/6th graders)

3. Division Story 24 ÷ 4: 3.OA.A.2

Number Sense: Multiplication and Division - Mental Math & Problem Solving - Division

Show the student the picture of 24 crayons. **"I have 24 crayons that I want to put into 4 boxes. How many crayons should I put into each box?"** If student is struggling to solve, or if they are incorrect or unsuccessful after a brief wait time (about 30 – 40 seconds), present them with a multiplication table. Ask, **"Is this something that would help?"**

3	2	1
Student solves on first attempt (6 crayons) applying multiplication or division to solve, without the use of a multiplication table.	Student solves using the multiplication table, skip counts, or uses another counting method to solve.	Incorrect on both attempts.

Commentary: Students should recognize that this is a situation that can be solved with division. There is an expectation for fluency with basic multiplication facts that should be evident in a performance level 3 response. The presentation of the multiplication table as a scaffold helps to identify if the student sees this as a multiplicative situation and helps the teacher see if the student understands how to use this ubiquitous tool to solve the problem.

If the student seems to be confused that there should be the same number of crayons in each box, clarify that each box needs to have the same number. For example, if they say they will put one in this box, and two in the next and then 10 in the next, etc.

4. Add 392 + 110 3.NBT.A.2

Number Sense: Place Value: Mental Math

a. Present the card 392 + 110. **"Read this card."** Ensure that they read the card correctly and correct them if not. "**How much is 392 plus 110?**" After the student responds ask, **"How did you solve it?"**

b. Present the card 66 + 28. **"Read this card."** Ensure that they read the card correctly and correct them if not. "**How much is 66 plus 28?**" After the student responds ask, **"How did you solve it?"** (Allow the student to correct their answer while explaining.)

3	2	1
Student solves on first attempt. (502)/(94)	Incorrect at first, but self corrects when explaining solution. OR Student is only able to apply a traditional algorithm to solve the problem and is unable to clearly explain that a new hundred has been formed.	Incorrect on both attempts.

Commentary: Students should apply place value understanding to fluently add and subtract within 1,000. If a student applies a traditional algorithm to solve this problem, the concern is that the thinking behind it is all digit-based, and that the conceptual understanding of the hundreds, tens, and ones involved is not fully developed.

If a student does apply a traditional algorithm, ask the student if they have another way to solve the problem, or to explain how the strategy works. If they are able to demonstrate another method (e.g. adding the hundred, then the ten) score as a level 3 response. If student is able to explain that by adding another ten to 90 that a new hundred is formed, score as a level 3 response. If student only uses procedural language to explain algorithm (e.g. "I carry the one," or "I put the one here.") score as a level 2 response.

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5. Fraction on Number Line - – 3.NF.A.1

Number Sense: Multiplicative Reasoning

Present the expression 5x8=40. **"Read this card."** Check to ensure that the student has read the problem accurately. Correct students who do not read it correctly. **"If you know 5x8=40, can you use that to help you solve 7x8?"** If student responds only yes or no, ask them to explain.

3	2	1
Student soles 2x8 (16) and adds 16 to 40 to get 56 (seven 8s is two more 8s).	Students starts at 40 and adds 8, then another 8. Might make a minor calculation error, or add using county-by-one strategy.	Student solves 7x8 as a separate problem (no relationship to 5x8) or is unable to solve.
Commentary: Student uses the distributive property to solve 7x8 by adding 16 (two 8s) to 40 (five 8s). If student counts on by 8, they are using additive rather than multiplicative strategy. Developing multiplicative reasoning is a significant 3rd grade benchmark.		

6. Combinations of 13: 2.OA.B.2

Number Sense: Structures, Flexibility and Fluency

For scoring this problem, look for combinations student knows without counting to add.

3	2	1
Correct/fluent: The student demonstrates ready access to combinations of numbers that add to 13.	Correct/works out: Student is able to find numbers that combine to make 13, but is able to with some think time or by counting to find answer.	Incorrect: Student does not accurately identify numbers that add to 13.
Commentary: Students should be able to identify combinations that add to 13 and other numbers under 20. This is an attribute of fluency that is worth practicing. Students who are unable to name these combinations without counting should be assessed more diagnostically (e.g. AVMR Structuring Numbers).		

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Universal Screener for Number Sense

Quick Script, *print 1 copy/test administrator*

1. **"Here is a box for cans. The box holds 7 rows with 3 cans in each row. Some cans have already been put into the box. How many cans will there be when the whole box has been filled?"** If you are unsure whether the student applied multiplication (either 7 x 3 or 3 x 7) to solve the problem, ask them, "How did you solve that?"

2.

    a. "**Read this.**" Present 300 – 102. Ensure that the student has read the problem correctly and correct them if they have not. **"How much is three hundred minus one hundred two?"**

        • If the student is unable or incorrect, present the card 300 – 2. **"Could this help you?"**

    b. "**Read this.**" Present 72 – 34. Ensure that the student has read the problem correctly and correct them if they have not. **"How much is seventy-two minus thirty-four?"**

        • If the student is unable or incorrect, present the card 72 – 4. **"Could this help you?"**

3. Show the student the picture of 24 crayons. **"I have 24 crayons that I want to put into 4 boxes. How many crayons should I put into each box?"**

    • If student is struggling to solve, or if they are incorrect or unsuccessful after a brief wait time (about 30 – 40 seconds), present them with a multiplication table. Ask, **"Is this something that would help?"**

4.

    a. Present the card 392 + 110. **"Read this card."** Ensure that they read the card correctly and correct them if not. "**How much is 392 plus 110?**" After the student responds ask, **"How did you solve it?"** (Allow the student to correct their answer while explaining.)

    b. Present the card 66 + 28. **"Read this card."** Ensure that they read the card correctly and correct them if not. "**How much is 66 plus 28?**" After the student responds ask, **"How did you solve it?"** (Allow the student to correct their answer while explaining.)

5. Present the card 5x8=40. **"Read this card."** Ensure that they read the card correctly and correct them if not. "**If you know that 5x8=40, can you use that to help you solve 7x8?**"
    • If the student answers "7x8=56," ask if there is a way 5x8 might help you get the answer if you didn't know it.

6. Present the card with multiple expressions (9+3, 8+5, 7+4, 6+8, 10+3, 6+7) **" Do you see an addition problem that equals 13?**". If the student identifies one ask **"Is there another one?"** If the student identifies one more ask again **"Is there another one?"**

    • If it is not evident each time, ask **"How do you know that makes 13?"**

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Quick Script Spanish, *print 1 copy/test administrator*

Modified for MOST – Spring 2025

Use with **CONTINUING** students who were given the Grade 3 Modified MIDYEAR assessment in Fall 2024 (intended for continuing 4th/5th/6th graders)

1. **"Aquí hay una caja de latas. La caja tiene 7 filas con 3 latas en cada fila. Algunas latas ya han sido puestas en la caja. ¿Cuántas latas habrá cuando toda la caja este llena?"** Si esta inseguro que el estudiante aplico multiplicación (como 7 x 3 o 3 x 7) para resolver el problema, pregúntenle, "**¿Como resolviste eso?"**

2.

    a. "**Lee esto."** Presenta 300 – 102. Asegúrese que el estudiante leyó el problema correctamente y corríjalo si no lo hizo. **"¿Cuánto es 300 menos ciento dos?"** Si el estudiante no puede o está equivocado, presente la tarjeta 300 – 2. **"¿Esto te ayudaría?"**

    b. "**Lee esto."** Presenta 72 – 34. Asegúrese que el estudiante leyó el problema correctamente y corríjalo si no lo hizo. **"¿Cuánto es 72 menos 34?"** Si el estudiante no puede o está equivocado, presente la tarjeta 72 – 4. **"¿Esto te ayudaría?"**

3. Enséñele al estudiante la figura de 24 crayolas. **"Yo tengo 24 crayolas que quiero poner adentro de 4 cajas. ¿Cuántas crayolas puedo poner en cada caja?"**

- Si el estudiante está luchando para resolverlo, o si están equivocado o sin éxito después de un corto tiempo (como 30 – 40 segundos), preséntenles una tabla de multiplicación. Pregunte, **"¿Esto te ayudaría?"**

4.

    a. Presente la tarjeta 392 + 110. **"Lea esta tarjeta."** Asegúrese que el estudiante lea la tarjeta correctamente y corríjalo si no lo hizo. **"¿Cuánto es 392 más 110?"** ¿Después de que el estudiante responda, **"¿Como lo resolviste?"** (Permítale al estudiante corregir su respuesta mientras explicándolo.)

    b. Presente la tarjeta 66 + 28. **"Lea esta tarjeta."** Asegúrese que el estudiante lea la tarjeta correctamente y corríjalo si no lo hizo. **"¿Cuánto es 66 menos 28?"** ¿Después de que el estudiante responda, **"¿Como lo resolviste?"** (Permítale al estudiante corregir su respuesta mientras explicándolo.)

5. Presente la tarjeta 5x8=40. **"Lea esta tarjeta."** Asegúrese que el estudiante lea la tarjeta correctamente y corríjalo si no lo hizo. **"¿Si sabes 5x8=40, ¿Puedes usar eso para ayudarte a resolver 7x8?"**

6. Presente la tarjeta con multiples expresiones (9+3, 8+5, 7+4, 6+8, 10+3, 6+7) "**¿Ves un problema de suma que es igual a 13?"** Si el estudiante identifica uno, preguntar, **"¿Hay otro?"** Si el estudiante identifica uno mas, preguntar otra vez, **"¿Hay otro?"**

- If it is not evident each time, ask "**¿Cómo sabes que son 13?"**

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Grade 3: Spring

Universal Screener for Number Sense
Interview Note Catcher, *print 1 copy/student*

Name: _____

Date: _____ Teacher: _____

Language: ☐ English ☐ Spanish ☐ Other: _____

Multiplication: 3.OA.A.1	*score*
1. Box with 7 rows of 3 cans. ☐ *solves with multiplication: 3 pts.* ☐ *solves with repeated addition: 2 pts.* ☐ *incorrect: 1 pt.*	
Subtraction – 3.NBT.A.2	*score*
2. $300 - 102$ $72 - 34$ ☐ *solves on first attempt: 3 pts.* ☐ *self-corrects or uses traditional algorithm: 2pts.* ☐ *incorrect: 1 pt.*	
Division – 3.OA.A.2	*score*
3. 24 crayons into 4 boxes. ☐ *uses multiplication/division: 3 pts.* ☐ *solves with support: 2 pts.* ☐ *unsuccessful: 1 pt.*	
Addition/Place Value: 3.NBT.A.2	*score*
4. $392 + 110$ $66 + 28$ ☐ *solves 1st attempt: 3 pts.* ☐ *solves w/ self-correct or trad. algorithm: 2 pts.* ☐ *unsuccessful: 1 pt.*	
Multiplicative Reasoning: 3.OA.C.7	*score*

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5. 5x8=40 7x8 ☐ *uses 5x8 (40) plus 2x8 (16): 3pts* ☐ *solves by adding 40+8+8:2 pts* ☐ *solving 7x8 or solves without using 5x8: 1 pt*	
Combinations of 13	*score*
6. 9+3 **8+5** 7+4 6+8 **10+3** **6+7** *Notes:* ☐ *3 correct/fluent: 3 pts* ☐ *3 correct/works out: 2 pts* ☐ *0-2 correct: 1 pt*	

> **Modified for MOST – Spring 2025**
>
> Use with **CONTINUING** students who were given the Grade 3 Modified MIDYEAR assessment in Fall 2024 (intended for continuing 4th/5th/6th graders)

Grade 3 Spring – Modified for MOST (continuing 4th/5th grade students)

Well Below Basic	Below Basic	Basic	Proficient
6–9	10–12	13–15	16–18

**Students having overall proficiency scores from 6–12 are recommended for continuing in the MOST program during Spring 2025.
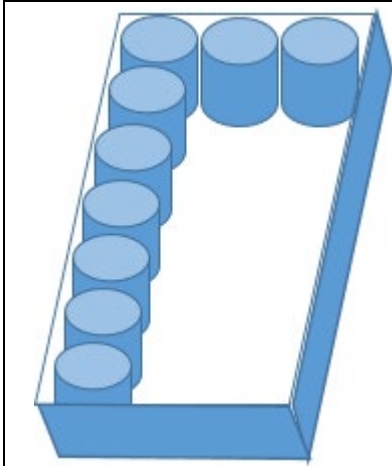
300 - 102

300 - 2

392 + 110

24 crayons
24 lápices de color

66 + 28	**9 + 3**
	8 + 5
72 - 34	**7 + 4**
	6 + 8
72 - 4	**10 + 3**
	6 + 7
5 x 8 = 40	**7 x 8**