180 Days of
Number Sense Routines
Grade 1
Days 121-140

180 Days of
Number Sense Routines

WHY IS DEVELOPING NUMBER SENSE IMPORTANT? Number Sense is the foundational building block for all strands of mathematics. Students who struggle in mathematics do not lack mathematical ability, but rather, they simply do not have a strong number sense on which to build their knowledge. Just as we are not born knowing how to read, we are not born with Number Sense. It must be developed and nurtured over time through a progression of understandings about numbers and their relationships to one another. With time and focused practice, students come to understand that numbers are meaningful, and outcomes are sensible and expected. Number Sense development encourages students to think flexibly and promotes confidence with numbers.

WHAT IS A NUMBER SENSE ROUTINE? A routine is an activity or event that occurs on a regular basis over time. Routines provide a framework for our day to support both the teacher and students. Routines help to build community and create a safe learning environment for students. Routines build a sense of belonging, ownership, and predictability which make the classroom a place to take risks. We learn through risk-taking; we take risks when we feel safe; we feel safe in a supportive learning environment; we create supportive learning environments through routines. Just as we have established routines for bus dismissal and fire drills, we must also establish routines that build mathematical thinking and discourse.

180 Days of
Number Sense Routines

HOW WILL THESE NUMBER SENSE ROUTINES BENEFIT ME AND MY STUDENTS? What teachers do and how they do it is critically important and has a profound impact on the quality of the educational experience of our students. Effective pedagogy, the art and science of teaching, is a key element in the learning process. The Number Sense are models of effective pedagogy and ensure that the critical Number Sense instruction we provide is equitable to all our students regardless of geography, teacher experience, or student circumstance. As we prepare our students to be mathematically proficient in their lives beyond the classroom walls, these Number Sense routines will help to lay the critical foundation for all future mathematical endeavors.

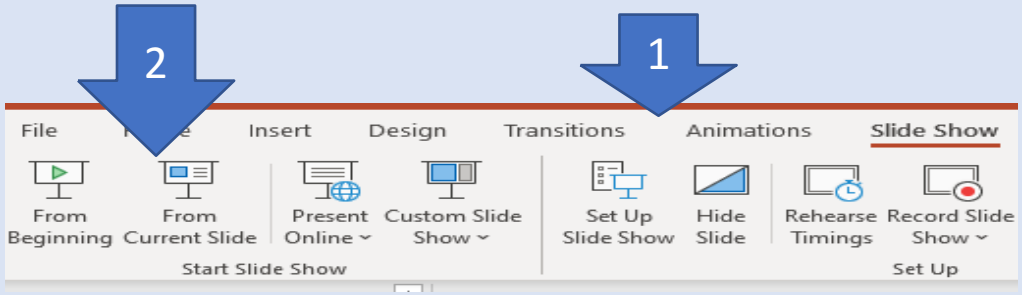
WHAT ARE THE CCPS IMPLEMENTATION EXPECTATIONS? Number sense routines have been developed for all 180 instructional days in grades Prekindergarten through Grade 5. These routines are to be used every day, including early dismissal, late arrival, and field trip days. Because the routines do not require a specific order, it is permissible to trade routines among days within the week to best match the time available. Number Sense must be built over time. With consistency, we can build students' number sense creating a strong mathematical foundation. If students or the teacher is struggling with a routine, the teacher collaborate with colleagues to build capacity in that routine – do not just choose to skip the routine. If additional help is needed, the teacher should seek the assistance of their content specialist or mathematics supervisor.

180 Days of
Number Sense Routines

HOW TO RUN POWERPOINT IN SLIDE SHOW MODE:

Slides with animation features, must run in Slide Show mode of PowerPoint for the animations to work correctly.

1. Select <Slide Show> from the menu at the top
2. Select <From Current Slide>



HOW TO ANNOTATE STUDENT THINKING ON THE SLIDE:

- With the slide in Slide Show mode, right click on the slide
- Select <Pointer Options> then choose <Pen>

180 Days of
Number Sense Routines

Acknowledgements

We are grateful to those who have inspired this project – and there have been many. These slide decks were designed for Grades 1–5 with custom-built daily routines for each grade level. The nine routines blend original creations, adaptations, and OER materials. We have made our work available in Open Educational Resources so that others may benefit as we have from the collaboration of other educators. Our deepest gratitude and respect to all those who helped move our work forward, and a special thank you goes to the following whose own work had such a tremendous impact on our 180 Days of Number Sense Routines:

- *Decide & Defend* and *Quick Count* routines were adapted from templates created by Grace Kelemanik and Amy Lucenta at http://FosteringMathPractices.com
- *Estimation Clipboard, Esti-Mysteries,* and *Splat!* templates created by www.SteveWyborney.com
- *Same But Different* discussion from Developing Grayscale Thinking by Looney Math Consulting at https://www.samebutdifferentmath.com
- *Which One Doesn't Belong* tasks adapted from http://wodb.ca by Mary Bourassa
- *As Close As It Gets* https://www.mathisfigureoutable.com/ascloseasitgets by Pam Harris

SKIP COUNTING BY 10s (not on the decades)

Day 121

CHORAL COUNTING

- **SAY: "**We are going begin with the task of skip-counting by 10's. We'll begin with the number 3. Remember, we will count slowly all together AND we'll use a 120 chart to help us visualize the next number we should say when counting."
- Count together: 3, 13, 23, 33….
- **As students count, CIRCLE the number on the chart (next page)**
- **When you get to 73, STOP to reflect.**
- **SAY: "**Math is all about patterns and relationships. Does anyone see a pattern with the numbers we circled during our count?"
- **DISCUSS:** Take time to discuss the pattern of circled numbers. Ask questions to continue focusing the discussion on the reasons WHY we see those patterns (students might notice, for example, that the ones place always has a 3 or that the tens place increases by 1 ten.
- **SAY:** "Look at the patterns we have already discussed. Do you think if we continue counting that we will circle the number 118?"
- Point to 118 at the bottom of the chart. Allow students to share ideas.
- **SAY**: "Which numbers will be circled next if we keep counting?" Discuss ideas.
- Continue counting from 73 where you left off to confirm students' ideas.
- **CHALLENGE**: "If this chart kept going, what is the next number that we would circle?" (123)
- ASK: "How do you know it will be 123?" (you are looking for students to talk about the mathematical patterns)
- If desired, repeat the choral counting routine beginning on a different number, such as 8.

NOTE: skip-counting by 10s is an important skill for students to learn in preparation for future mathematical concepts based on place value. We typically count by tens on the decade 10, 20, 30… but knowing how to skip count by 10s with other numbers is an important skill, too.

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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	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120

Day 121

Looking for Patterns

Skip Counting by 10s

CHORAL COUNTING

Day 122

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the CHECKLIST on the left side of the problem as a way to help organize the thinking process

- **READ to Understand:** Begin by having students discuss the question being asked. At this time, do NOT focus on the math calculations required or the answer. This step is designed for students to understand the context of the question (What is the gist of the question?)

- **DECIDE**: Pair or group students. Using a consistent pairing will make this routine more fluid so you do not have to take time to pair students every time you want them to discuss. Have students discuss the question and discuss the question and decide which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students draft a statement about their ideas (either as a group or individually and it can be written or oral – teacher's choice)

- **DEFEND**: Students share their ideas and defend their reasoning with the whole group. Encourage active listening and accountable talk.

- **RELECT**: To further develop comprehension, have students use ONE of the sentence starters on the "Reflect on Learning" slide after they have discussed and listened to new ideas with classmates.

NOTE: This is the CCPS adaptation of the original Decide and Defend protocol

DECIDE & DEFEND

Use Numbered Heads

READ to Understand

Decide

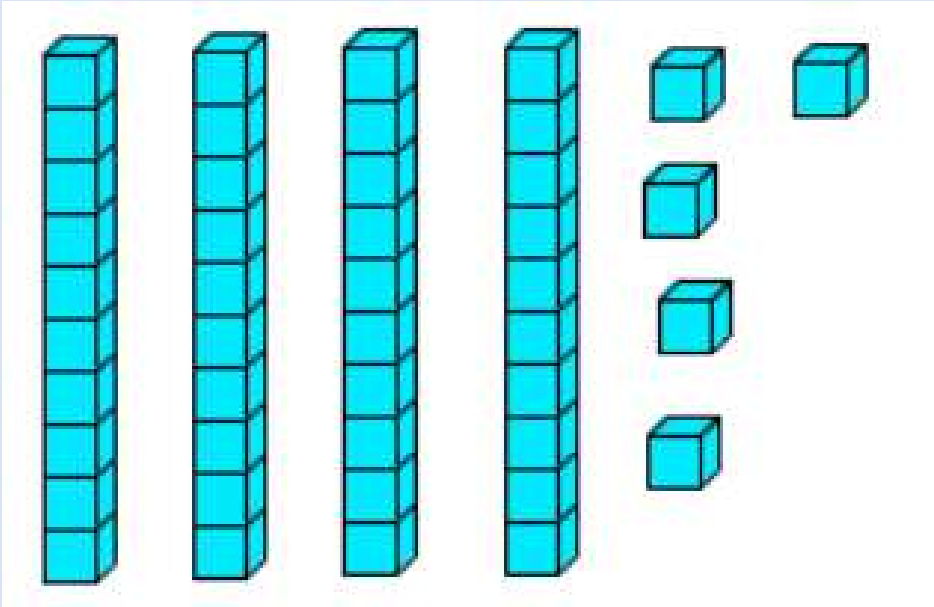
Draft

Defend

Reflect

Day 122

These are Ben's blocks. He wants to give James 7 blocks. Ben said he will have 32 blocks left after he gives some to James. **Is Ben correct?**



DECIDE & DEFEND

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1.NBT.C
1.R.3

Day 122

Reflect on Learning

- A **new** math idea I learned today is…
- A math idea I learned **more** about today was…

DECIDE & DEFEND

Day 123

Esti-Mystery

Estimation Activity with clues!

Students use clues to solve the estimation mystery.
After all of the clues are revealed, students will have enough information to determine if their initial estimate was correct.

Clues are revealed one at a time with time to discuss and refine original estimates after EACH clue is revealed.
No one should be stuck with their original estimate – encourage mindful refinements.

Students may benefit from using paper and pencil to work through possibilities or consider creating a class chart where possibilities are added and crossed off as each clue is revealed.

ESTIMATION

Image Source: Lego.com

How many Legos® are needed to build this dinosaur?

As the clues appear, use the information to narrow the possibilities to a smaller set. Then use estimation to determine which of the remaining answers is the most reasonable.

As a class, you may want to make a chart to keep track of the possible solutions.

Clue #1

It is less than 45

Clue #2

It is more than 36

Clue #3

One of the digits is 3

Clue #4

What are the 4 possibilities?

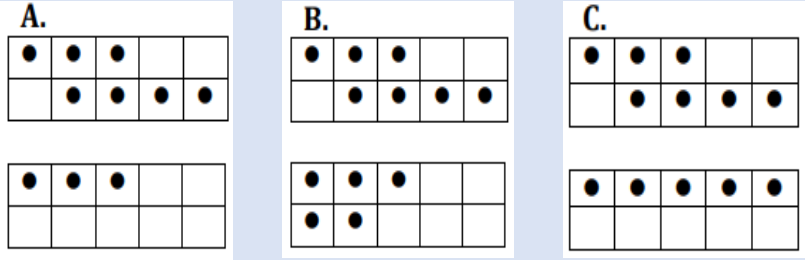
Clue #5

It is the one that is the greatest value

By combining the clues and estimation, you now have enough information to determine the answer.

The Reveal
Click to see the answer.

Day 124



TEACHER NOTES

BEFORE

This slide has the String of expressions that you will use for today's Number Talk. You can use Smart Ink, right click for PowerPoint Pen, or convert this slide to Smart Notebook so you can easily annotate on the slide. The annotation is an important part of the routine. The expressions should be presented one-at-a-time with skills building on one another.

DURING

Making Tens: Double Ten-Frames

- This is not a flash activity. Reveal each 10-frame one at a time and leave the image visible throughout the discussion.
- Ask students, "How many dots?"
- Give Wait Time for all students to have a response ready.
- Record the various answers if there are different responses.
- Then ask students to explain "How they saw the dots".
- As students explain, gesture to show what they saw (remember, do not have students come up to the board; we are working to build their oral language.
- Continue with each frame in this way.
- Encourage a variety of efficient methods to be shared.

Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

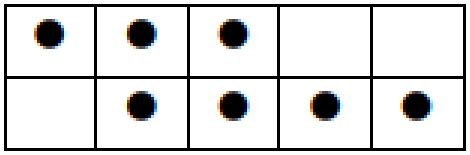
AFTER

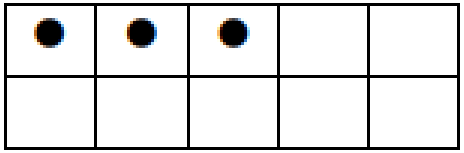
Discuss the various methods that are more efficient than one-by-one counting. Encourage students to UNITIZE the dots into sets of 5 and 10 as this is a foundational skill for all of mathematics.

NUMBER TALK

Day 124

A.





NUMBER TALK

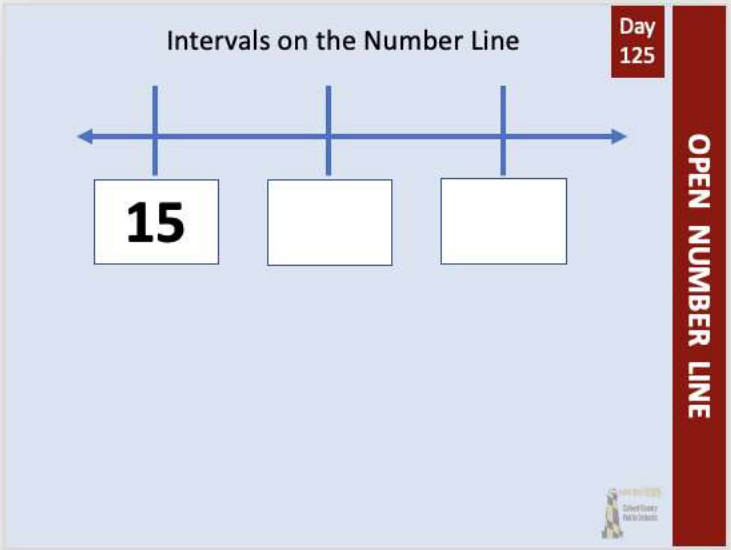
1.OA.C.6
1.OA.A.1

Day 125

OPEN NUMBER LINE

Use the NEXT SLIDE with students.

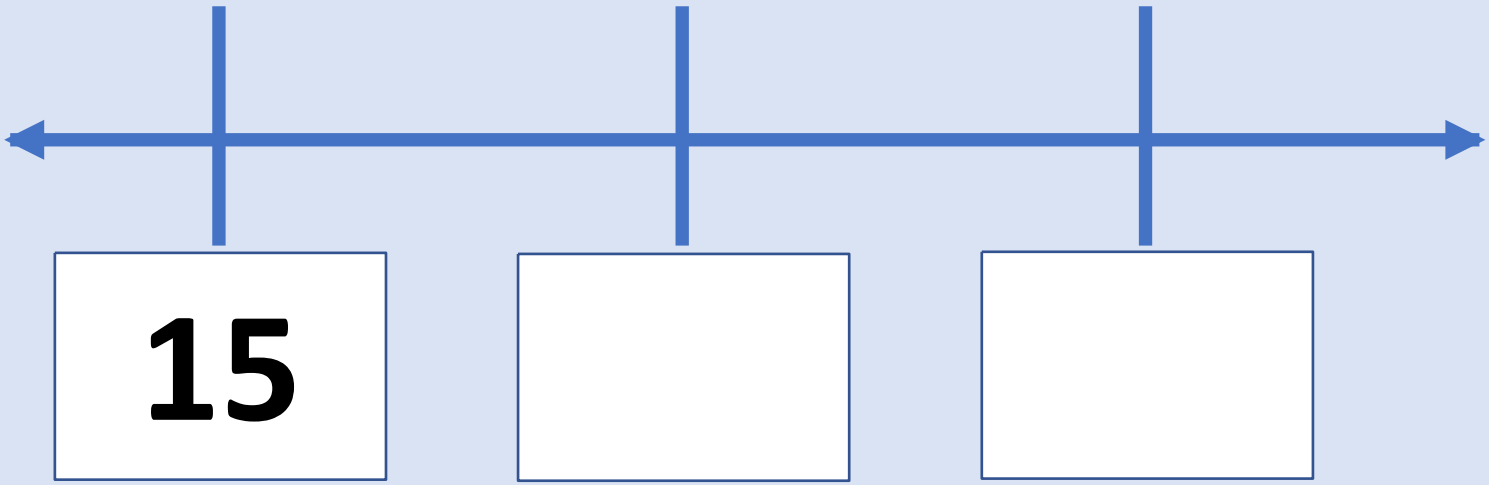
Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!



- TASK 1: Write 17 in the last box. Ask what number goes in the middle box? Discuss. Erase the 17 (and the 16 if you wrote it)
- TASK 2: Write 17 in the middle box. Ask what number goes in the last box? Discuss how the interval changed to 2s. Erase the 17 (and the 19 if you wrote it).
- TASK 3: Write 20 in the middle box. Ask what number would go in the last box. Discuss the new interval of 5.

Intervals on the Number Line

Day 125



- TASK 1: Write 17 in the last box. Ask what number goes in the middle box? Discuss. Erase the 17 (and the 16 if you wrote it)
- TASK 2: Write 17 in the middle box. Ask what number goes in the last box? Discuss how the interval changed to 2s. Erase the 17 (and the 19 if you wrote it).
- TASK 3: Write 20 in the middle box. Ask what number would go in the last box. Discuss the new interval of 5.

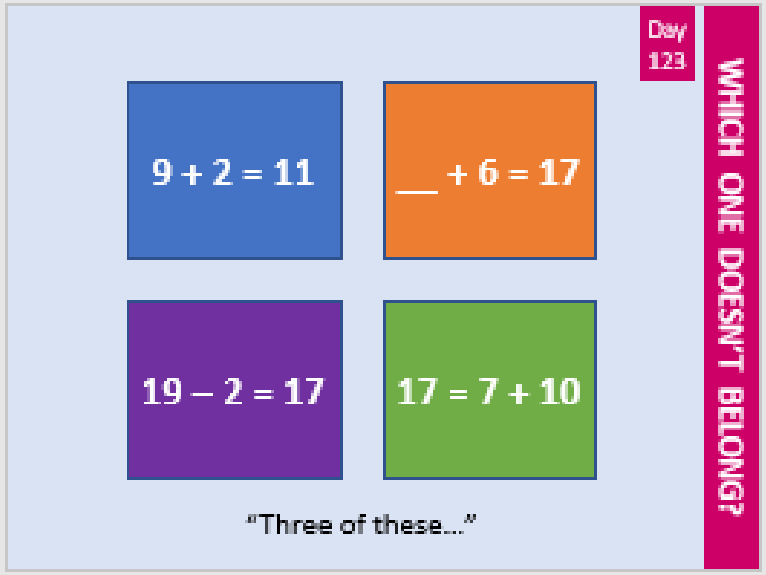
OPEN NUMBER LINE

Day 126

WHICH ONE DOESN'T BELONG?

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive. Additional ideas encouraged!



Possible Responses:

- Three of these equal 17. 9 + 2 does not equal 17.
- Three of these have all of the values written in the equation. ___ + 6 = 17 has an unknown value.
- Three of these are addition. 19 – 2 = 17 is not addition.
- Three of these have the sum/differences as the last part of the equation. 17 = 7 + 10 does not have the sum written last.

Day 126

WHICH ONE DOESN'T BELONG?

$9 + 2 = 11$

$\_\_ + 6 = 17$

$19 - 2 = 17$

$17 = 7 + 10$

"Three of these equations…"

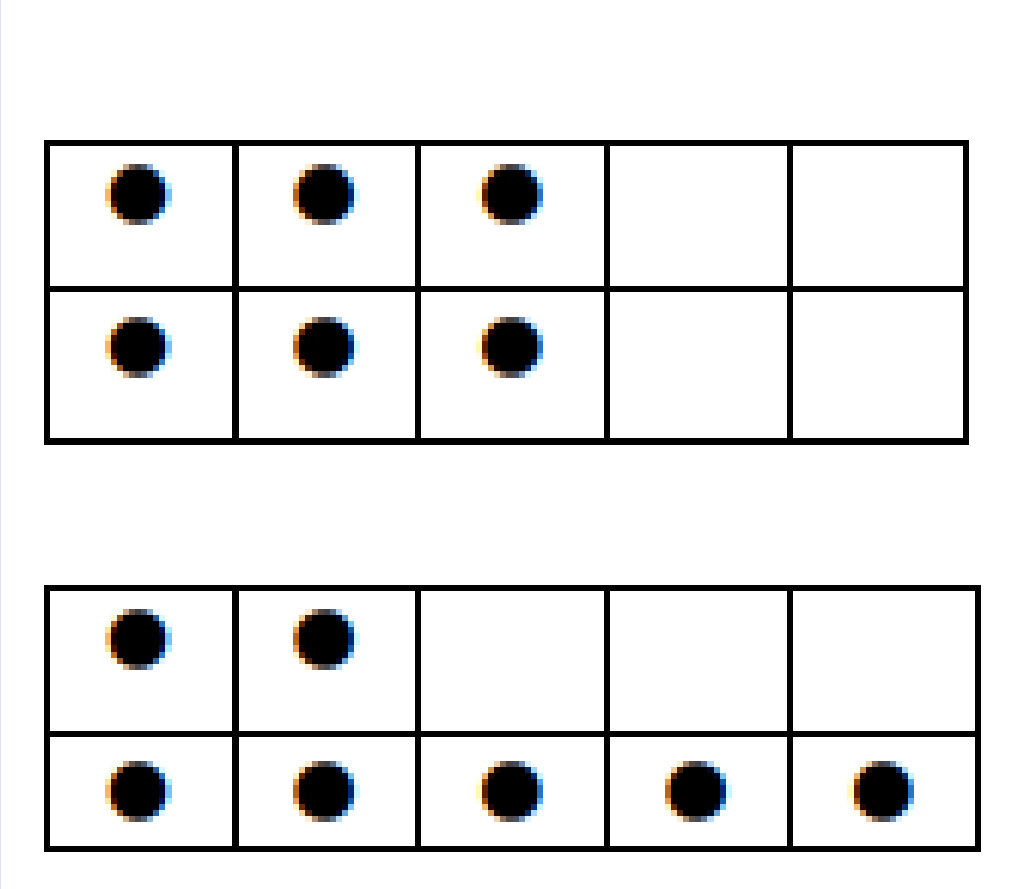
Directions for QUICK COUNT routines

Quick Count is an instructional routine designed to shift attention away from mindless calculations and toward necessary structural interpretations of mathematics. This routine fosters structural thinking, Math Practice 7, and promotes student discourse.

1. Pair students into Numbered Heads (Peanut Butter Jelly partners, etc.)
2. **Show students the first image slide for about 3-5 seconds depending on the complexity of the image and level/experience of the students.**
   After 3-5 seconds, advance the slide to hide the image.
3. With their partner, students discuss everything they can remember about the image.
4. After a minute of partner discussions, have students share ideas to the group.
5. Create a list of student ideas that students can refer to when the image is shown again.
6. Tell students that you are going to put the slide back up without hiding it so they can COUNT the images using some type of **shortcut strategy** (chunking, symmetry, arrays…)
7. Show the image again and leave it displayed as students look for counting shortcuts.
8. With their partner again, students discuss how many objects are in the image and describe the shortcut counting strategy they used. Give time for partner discussions. Listen in and take notes about discussions to determine which students will share.
9. Use the slide with identical images as a comparative visual as students take turns explaining how they counted the objects in the image. This 2-step process is important for building listening comprehension and students' ability to articulate the ideas of others.
   a. Use your notes to select different students with different approaches.
   b. The student explains his/her shortcut as the teacher **gestures** over the image.
   c. A **different student** is asked to **REPEAT the original student's shortcut** as the teacher **annotates** (circles, underlines) on the image to show the shortcut used.
   d. Repeat the process using different student-generated shortcut strategies.
10. End by asking students to explain what was "mathematically important"

Day 127

What do you NOTICE?



QUICK COUNT

1.OA.C.6

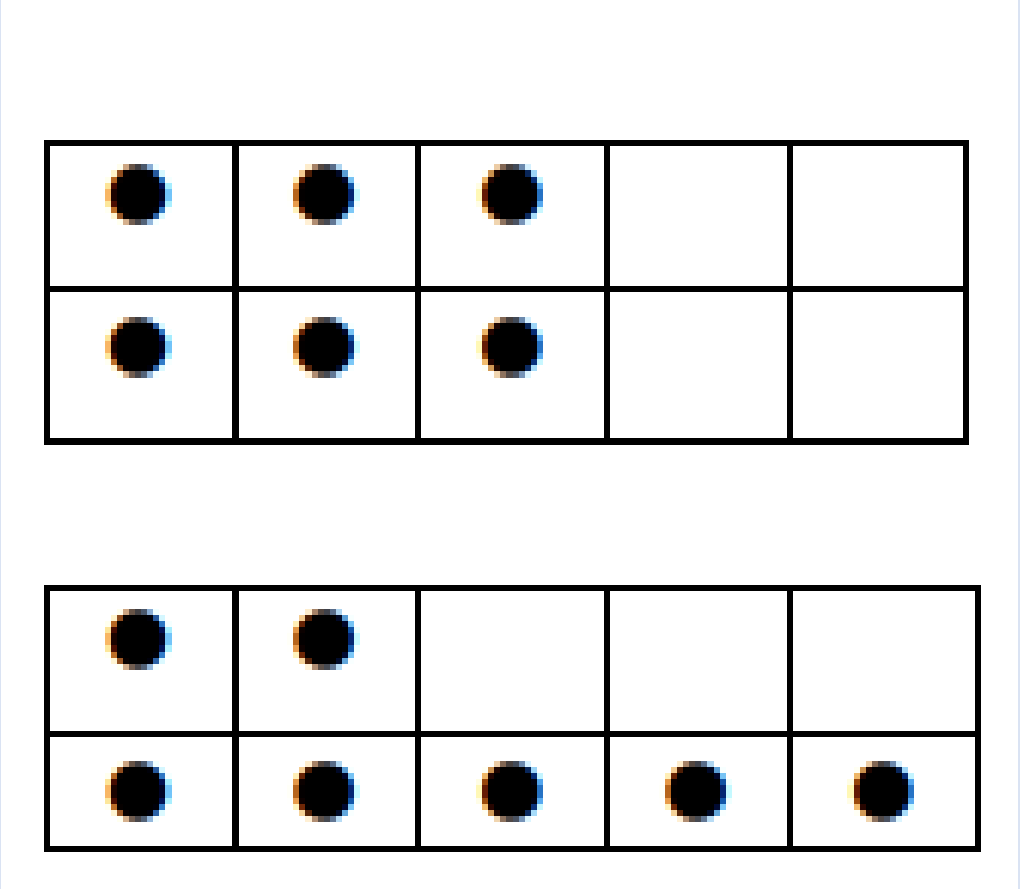
Day
127

QUICK COUNT

What did you NOTICE?

Day 127

How many dots?
What counting shortcut did you use?



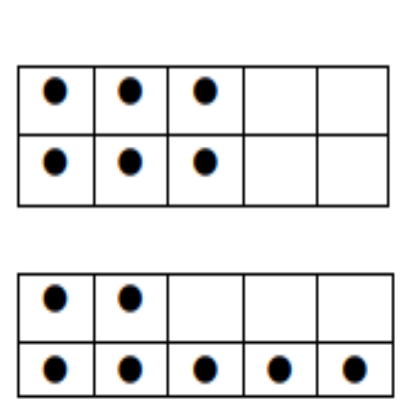
QUICK COUNT

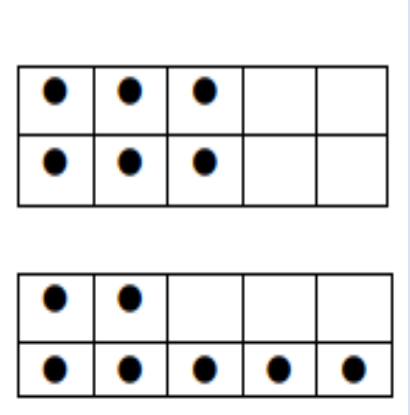
I noticed _____ so I _____

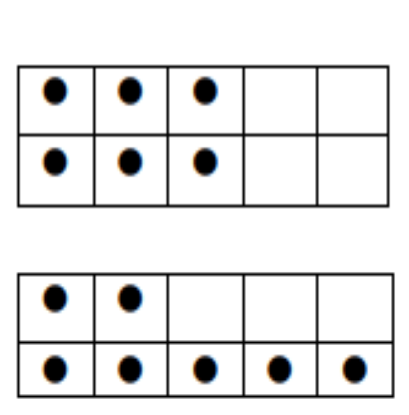
(They) noticed _____ so they___

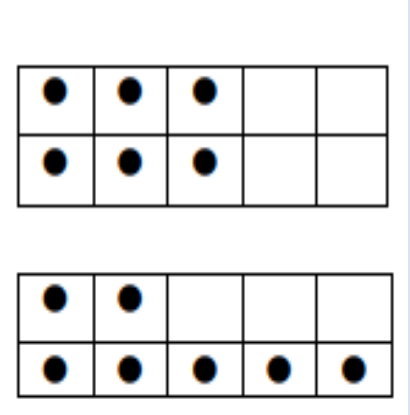
Day 127

QUICK COUNT









Day 127

Reflect

What was mathematically important?

QUICK COUNT

Intro

SAME BUT DIFFERENT

About the SAME BUT DIFFERENT Routine

Same But Different is a powerful routine for use in math classrooms. The *Same but Different* routine compares two things **calling attention to both how they are the same and how they are different**. This apparent paradox is the beauty of the activity. In this analysis, *instead of making a choice and trying to prove that these are the same or prove that they are different, **students consider how two items can be both**.* This is a critically important distinction from many other tasks.

One of the reasons students struggle in math is that they struggle to make connections. Someone who has poorly developed number sense might see each number as its own thing, and not part of the larger network of mathematical ideas. A mathematical conversation using the language *same but different* that calls attention to how a new concept in math is the same as another familiar and comfortable concept but different in a specific way is a useful conversation in growing a student's network of connections. Building these connections could also reduce anxiety as children become the sense-makers in the conversation.

Source: www.samebutdifferent.net.com/about

Facilitating the SAME BUT DIFFERENT Routine

1. Present the slide
2. Ask students to THINK about how the two items are both the SAME AND DIFFERENT.
3. Do not allow conversation at this time -- give ample think time for students to consider the possibilities
4. After some time has been given (a minute or so), ask students to talk with their Number Head partner or small group about their ideas -- allow this conversation to dominate the time dedicated to this routine
5. As students talk with partners/groups, walk around and listen to the conversations. Resist jumping in; let them grapple with the ideas with their peers.
6. As you walk around listening, take notes. You will use these notes to help direct the whole group conversation.
7. Refocus student attention to the front of the room for a whole group debriefing session. Ask students to share some of their ideas about how the two were both the SAME and DIFFERENT – use the notes you took to bring out important ideas that will benefit the entire room.

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Day 128

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

- Students may simply recognize a component that makes them the “same” OR “different”
- Some students may state a same/different relationship and say that they are the “same because…. But different because….”

This image supports standard 1.MD.A.2 – measuring items as they relate to a smaller item

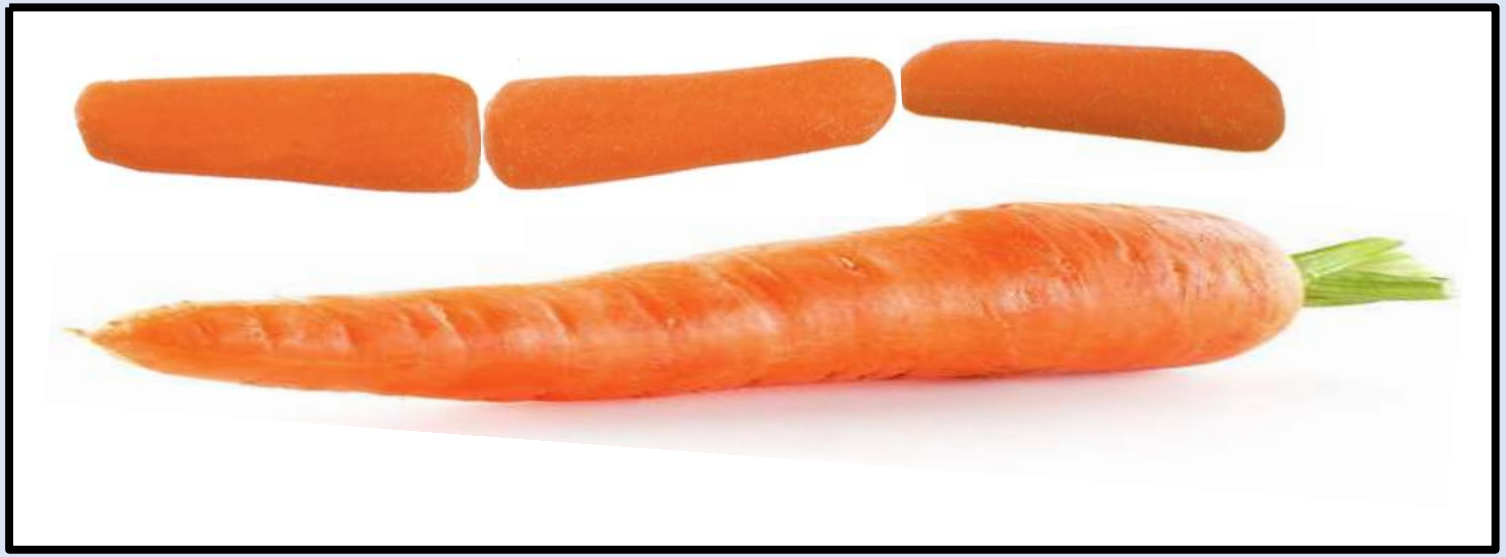
POSSIBLE RESPONSES

- They are both carrots but are different sizes.
- They both are about the same length, but one needed 3 carrots to be about the same length as just one whole carrot.
- They are both orange in color, but the whole carrot has a green stem on the end.

SAME BUT DIFFERENT

How are the baby carrots the SAME but DIFFERENT from the big carrot?

Day 128



SAME BUT DIFFERENT

1.MD.A.2

Day 129

16

Each splat has the same amount hiding underneath.

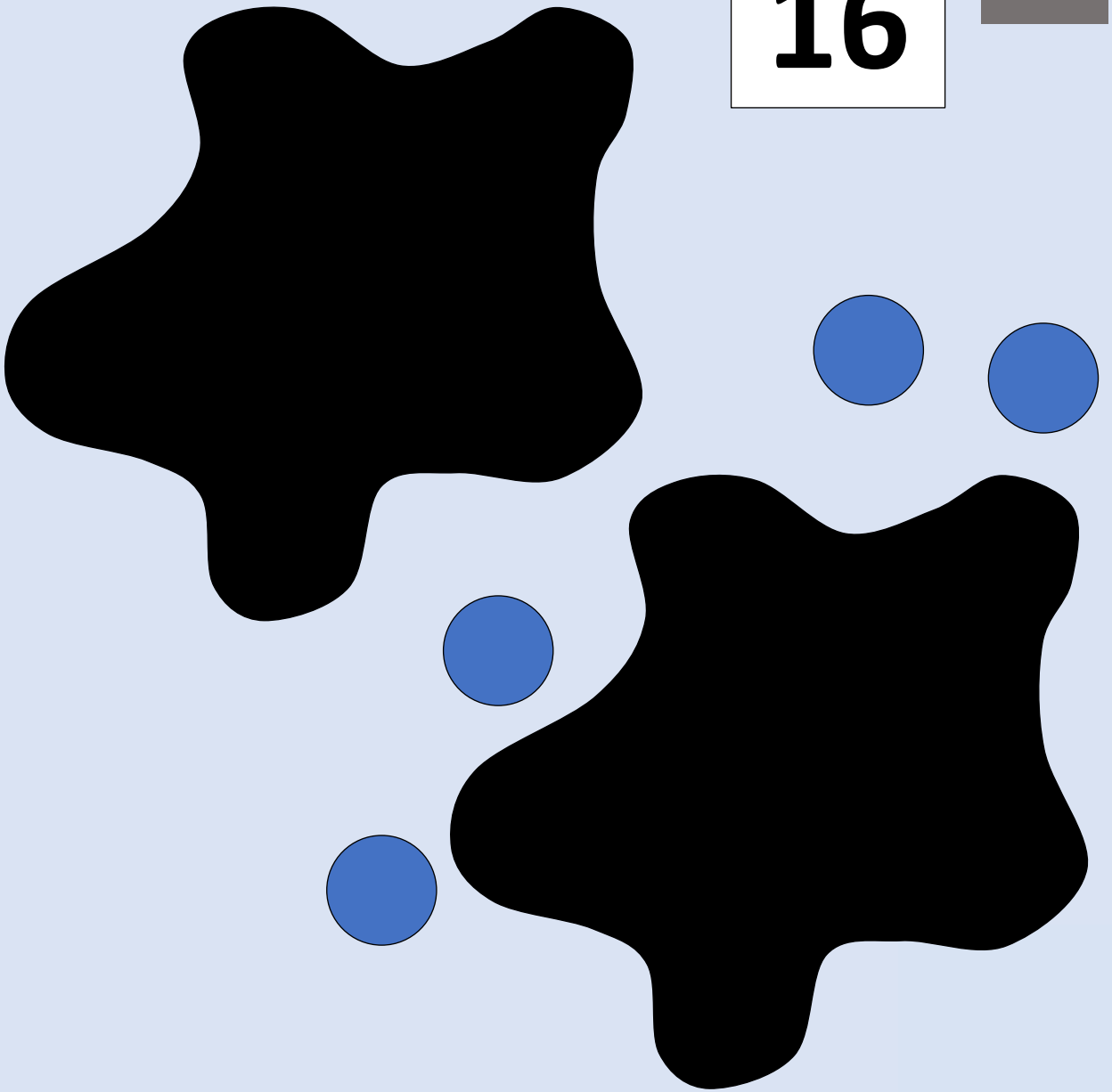
How many are under <u>each</u> splat?

How did you know?

are hiding?

ow many blue circles are there.

hat can we learn from this picture?



SPLAT!

1.OA.C.5
1.OA.C.6

Day 130

Which answer is

As Close as it Gets?

Explain that NONE of the answers shown are the exact solution.

- Students should use **mathematical reasoning** to select the answer that is **closest** to the actual answer. **Discourage complex calculations, encourage estimation and reasoning.**
- Students are expected to **explain the reasoning they used** to select the answer that they think is closest to the actual answer.

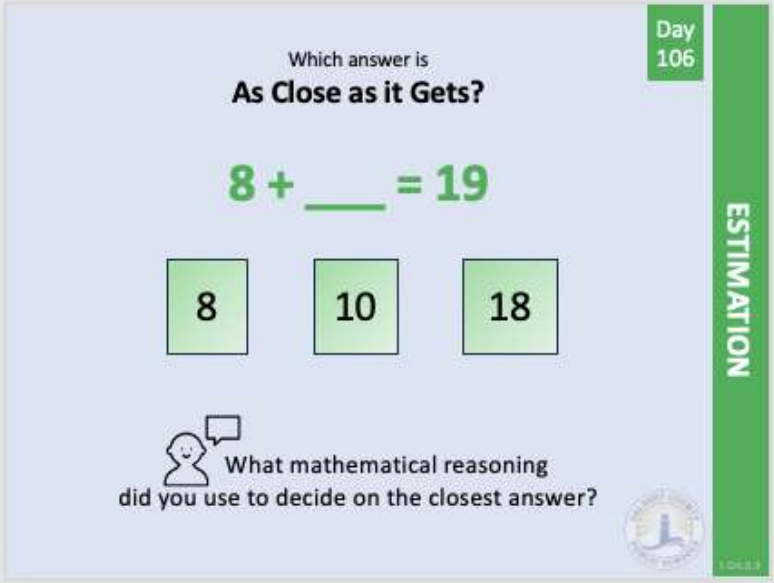
ESTIMATION

Use the NEXT SLIDES with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

Day 130

ESTIMATION



10
8 + 8 is a doubles fact that equals 16
But 8 + 10 is closer equaling 18 (just 1 away from the target 19).
18 is very close to 19, but not after you add it to 8

Day 130

ESTIMATION

Which answer is

As Close as it Gets?

$$8 + \_\_\_ = 19$$

8	10	18

What mathematical reasoning did you use to decide on the closest answer?

Day 131

CHORAL COUNTING

What Comes Next?

Today's Choral Counting will be a little bit different than usual. There is a number line on the next page. This activity will only run in Slide Show mode of PowerPoint.

You will notice that the number is blank. As the teacher hits the RETURN key on the keyboard or clicks the mouse, the next random number will be revealed. When the number is revealed, the students state the number that is 1 more than the number showing. Continue to click to reveal the numbers. Keep the activity moving. Slow down if students struggle (i.e. as they cross a decade number 29_30),

You will notice that the number 9 is showing when you begin. Use the number 9 as your model when explaining the activity. Say, "We see the number 9 on the number line. What number comes AFTER 9 on the number line when we count by 1s?". Discuss and then click the button to reveal the number. The number set ends when the number 100 is revealed. Consider the challenge below after seeing 100.

1 LESS CHALLENGE: Once all of the numbers have been revealed, you can challenge students by doing the activity in reverse – press the back arrow button and the each number will revealed again in reverse order. Ask students what number is 1 LESS than the number that is showing on the chart. When you click the back arrow button, the number will change. The challenge activity ends when you are back on the number 9.

NOTE: The last number in this series of "one more" is 100

Remember: Be sure to use the PowerPoint version of the activity today.
This activity will only run correctly in PowerPoint using SLIDE SHOW "from current slide".

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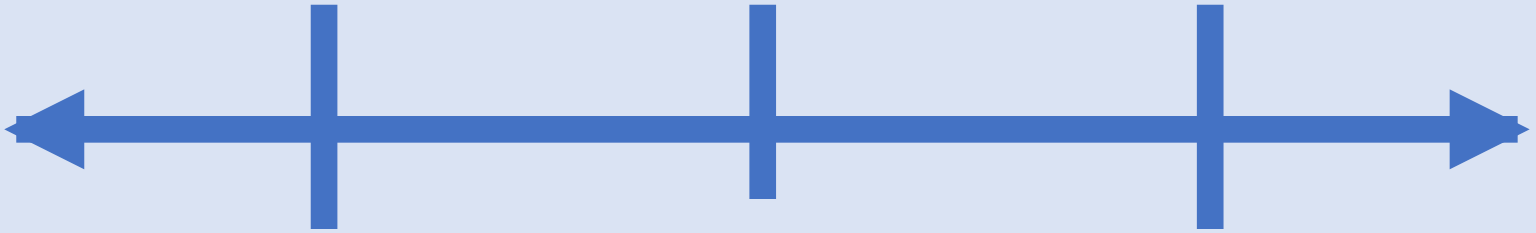
Day 131

What Comes Next?



100

CHORAL COUNTING

CHALLENGE: Once all of the numbers have been revealed, you can challenge students by doing the activity in reverse – Ask students what number is 1 LESS than the number showing.

1.NBT.A.1

Day 132

Esti-Mystery

Estimation Activity with clues!

Students use clues to solve the estimation mystery.
After all of the clues are revealed, students will have enough information to determine if their initial estimate was correct.

Clues are revealed one at a time with time to discuss and refine original estimates after EACH clue is revealed.
No one should be stuck with their original estimate – encourage mindful refinements.

Students may benefit from using paper and pencil to work through possibilities or consider creating a class chart where possibilities are added and crossed off as each clue is revealed.

ESTIMATION

How many crayons?

As the clues appear, use the information to narrow the possibilities to a smaller set. **Your class may want to create a chart and use the number line to keep track of the possible solutions.**

Clue #1
The number is between 88 and 98 on the number line

Clue #2
The number has 9 bundles of ten

Clue #3
There are also some ones

Clue #4
If you get 4 more crayons, you will have 100 crayons

By combining the clues and estimation, you now have enough information to determine the answer.

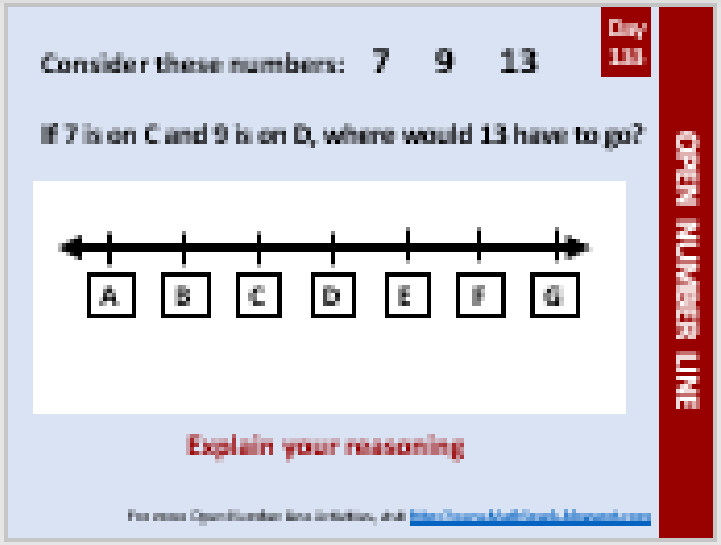
The Reveal
Click to see the answer.

Use the NEXT SLIDE with students.

Teacher Reference Page

Day 133

OPEN NUMBER LINE



7, 9, 13

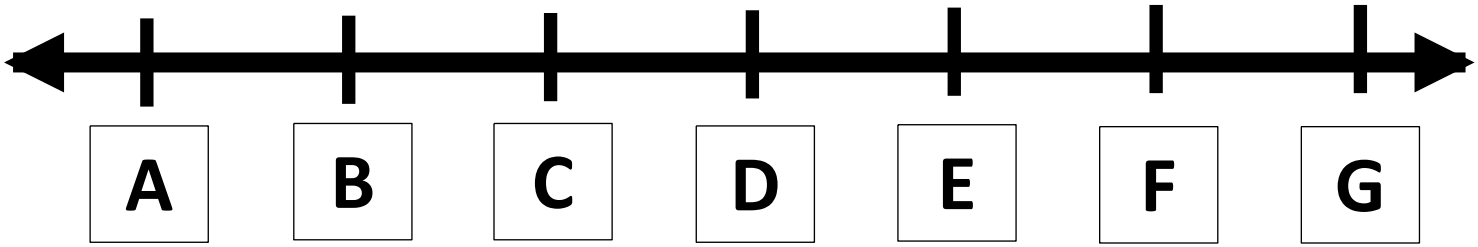
If 7=C and 9=D then 13=F because the intervals are by 2

For more Open Number Line Activities, visit http://www.MathSnack.blogspot.com

Day 133

Consider these numbers: 7 9 13

If C is 7 and D is 9, which letter represents 13?



Explain your reasoning

OPEN NUMBER LINE

1.OA.A.1
1.R.1

Day 134

Using the DECIDE & DEFEND routine

As you do this routine with students, USE the CHECKLIST on the left side of the problem as a way to help organize the thinking process

- **READ to Understand:** Begin by having students discuss the question being asked. At this time, do NOT focus on the math calculations required or the answer. This step is designed for students to understand the context of the question (What is the gist of the question?)

- **DECIDE**: Pair or group students. Using a consistent pairing will make this routine more fluid so you do not have to take time to pair students every time you want them to discuss. Have students discuss the question and discuss the question and decide which solution is correct (note: partners may not agree and that is fine provided they can justify their own thinking).

- **DRAFT**: Students draft a statement about their ideas (either as a group or individually and it can be written or oral – teacher's choice)

- **DEFEND**: Students share their ideas and defend their reasoning with the whole group. Encourage active listening and accountable talk.

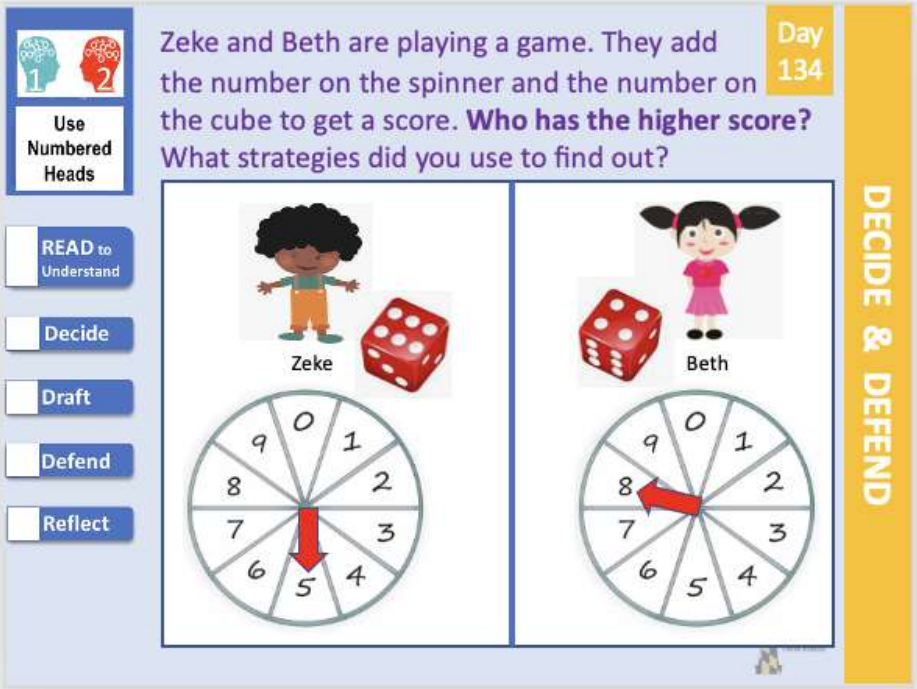
- **RELECT**: To further develop comprehension, have students use ONE of the sentence starters on the "Reflect on Learning" slide after they have discussed and listened to new ideas with classmates.

NOTE: This is the CCPS adaptation of the original Decide and Defend protocol

DECIDE & DEFEND

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!



Zeke scored 6 + 5 = 11
Beth scored 4 + 8 = 12
Beth scored more points.
Be sure to discuss the various **strategies** and reasonings students have.

Day 134

DECIDE & DEFEND

Use Numbered Heads

READ to Understand

Decide

Draft

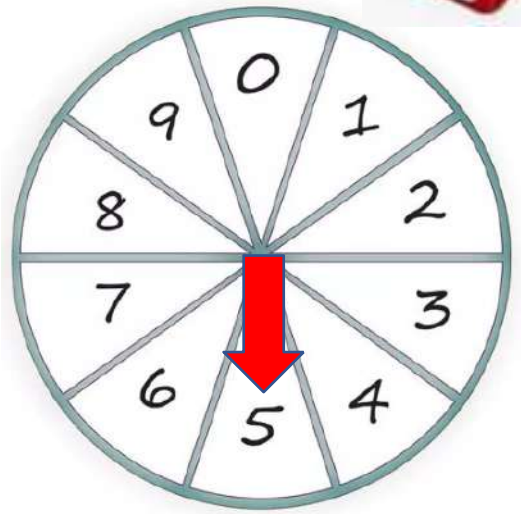
Defend

Reflect

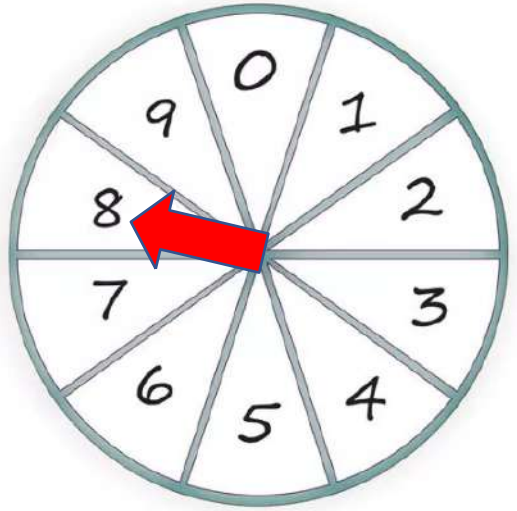
Day 134

Zeke and Beth are playing a game. They add the number on the spinner and the number on the cube to get a score. **Who has the higher score?** What strategies did you use to find out?

Zeke



Beth



DECIDE & DEFEND

1.OA.C.6
1.R.4

Day 134

Reflect on Learning

- A new math idea I learned today is…

DECIDE & DEFEND

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!

Day 135

SAME BUT DIFFERENT

A Few of the POSSIBLE RESPONSES

- Both numbers have the same digits 1 and 7 but they are not in the same place.
- Both numbers have the same digits 1 and 7 but they are called different names (seventeen and seventy-one)
- Both numbers have the same digits 1 and 7 but 71 has a greater value than 17
- Both numbers have 2 digits, but the value of the numbers is not the same

CALVERT COUNTY PUBLIC SCHOOLS

How are these the SAME but DIFFERENT?

Day 135

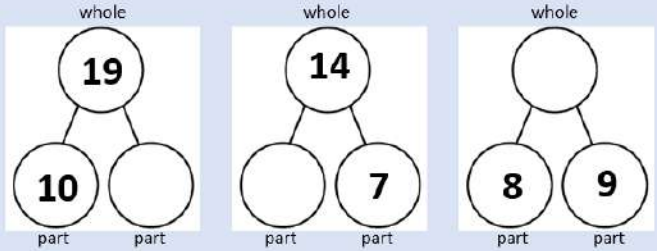
17

71

SAME BUT DIFFERENT

1.NBT.B.2

Day 136



TEACHER NOTES

BEFORE

This slide has the String of expressions that you will use for today's Number Talk. You can use Smart Ink, right click for PowerPoint Pen, or convert this slide to Smart Notebook so you can easily annotate on the slide. The annotation is an important part of the routine. The expressions should be presented one-at-a-time with skills building on one another.

DURING

Using strategies to determine missing values in Number Bonds

- students may use the "ten and some more" strategy to recognize that a ten and 9 ones equals 19
- students may recall their "doubles facts" to quickly determine that 7 is missing
- Students may use a "doubles plus one" strategy to determine that 17 is the missing value

Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

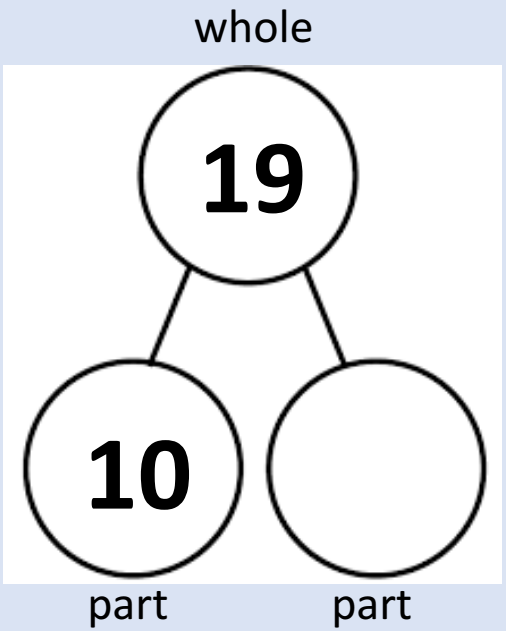
AFTER

Discuss the various strategies used and discuss how using a strategy is more efficient than counting one-by-one

NUMBER TALK

What Number is Missing?

Day 136



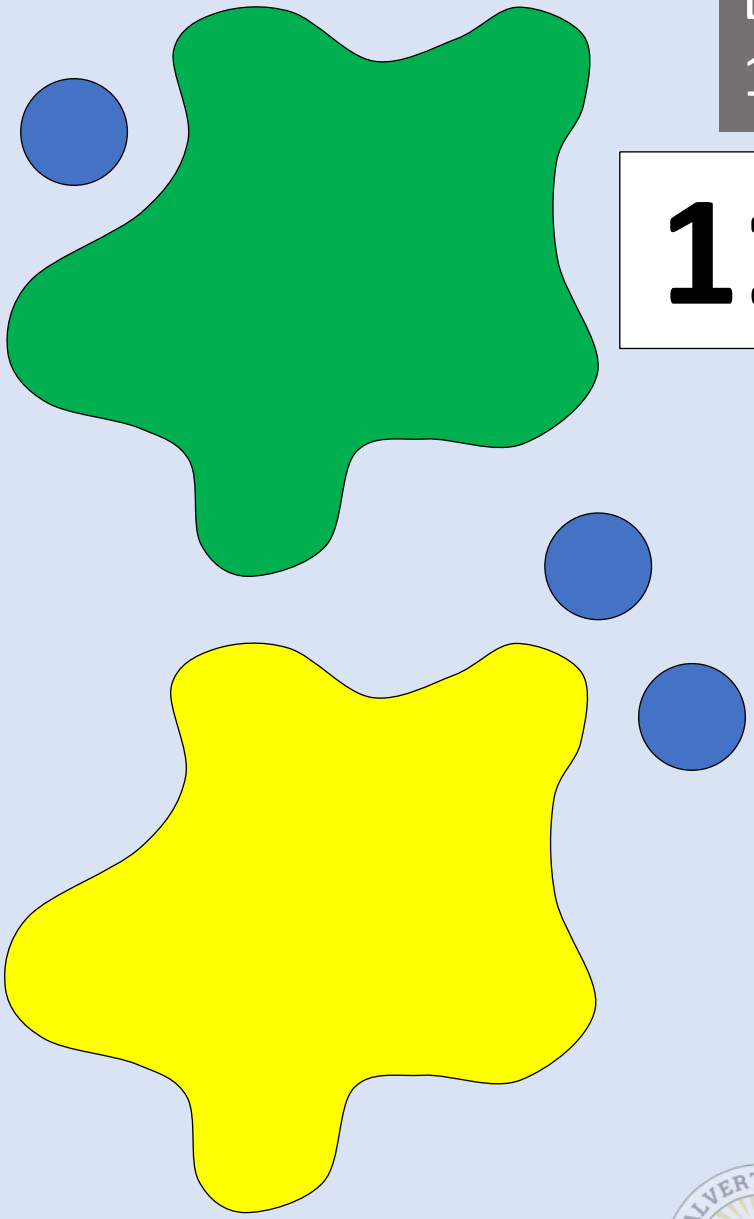
NUMBER TALK

1.OA.C.6

Day 137

SPLAT!

11



How many blue dots do you see?

How did you count them?

How else could you count them?

Let's look under one splat to see how many dots are there.

colors.

colors

ing different

uld be under the

w many would

the yellow splat?

ions are possible?

other splat?

1.OA.C.5
1.OA.C.6

Day 138

Ten Less – Ten More

Today's Choral Counting will be a little bit different than usual. There is a number line on the next page. This activity will only run in **Slide Show mode of PowerPoint.**

You will notice that the page has a number line with "one jump" before and after indicated. The interval we will use today is +/-10.

When the number is revealed, a +10 or -10 arrow will appear above the number line. Students will say the number that is +10 or -10 from the given number on the number line.

Remember, go slowly enough for students to respond with a choral response.

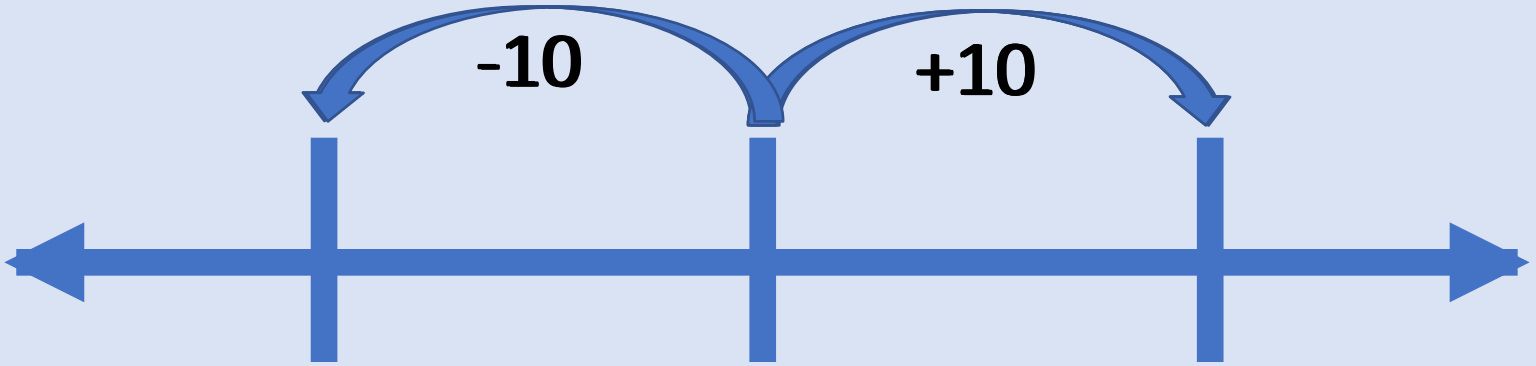
REMINDER: Be sure to preview the activity in Slide Show mode before using it with students

CHORAL COUNTING

CALVERT COUNTY PUBLIC SCHOOLS

Day 138

TEN LESS – TEN MORE



79 **90** **100**

*This activity will only run correctly in PowerPoint using SLIDE SHOW “from current slide”

CHORAL COUNTING

1.NBT.C.5

Day 139

9 + 1
9 + 3 + 1
9 + 5 + 1
7 + 9 + 1

TEACHER NOTES

BEFORE

This slide has the String of expressions that you will use for today's Number Talk. You can use Smart Ink, right click for PowerPoint Pen, or convert this slide to Smart Notebook so you can easily annotate on the slide. The annotation is an important part of the routine. The expressions should be presented one-at-a-time with skills building on one another.

DURING

Making Tens

- The goal of this string of expressions is to support (1) making tens, (2) making teen numbers, (3) understand that we can ADD numbers in any order, and (4) that using the changing the order that we add numbers (commutative property) can make addition more efficient
- All three example are intended to encourage students to first add 9 + 1 = 10 then to add the additional quantity

Remember, students will come with a variety of strategies. Help students to understand a wide variety and guide them into understanding that some strategies work better in some situations, so knowing more than one way to solve an equation like this one is important so they can later choose the method that is most efficient.

AFTER

Discuss the shortcut strategy of decomposing numbers to create friendly numbers or known values.

NUMBER TALK

9 + 1

Day 139

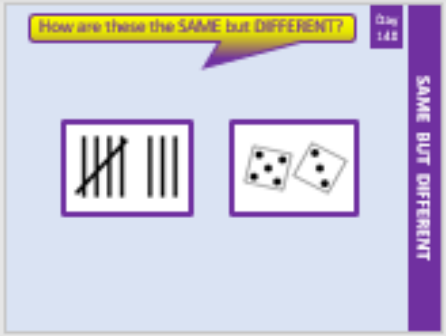
NUMBER TALK

1.OA.C.6

Day 140

Use the NEXT SLIDE with students.

Here is are some possible responses. This list is not all-inclusive.
Additional ideas encouraged!



A Few of the POSSIBLE RESPONSES

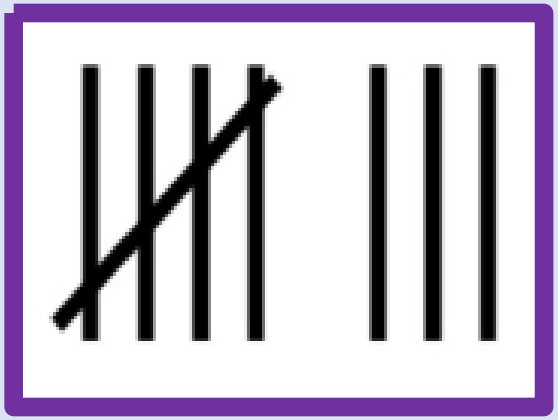
- Both represent the number 8, but one is tally marks the other is on dice
- Both represent the number 8 as 5 and 3, but one uses lines the other uses dots (pips)
- Both have decomposed the number eight into two parts, but one is two groups of lines the other is two dice

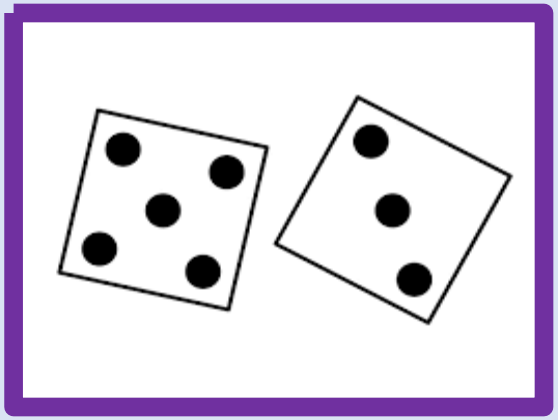
SAME BUT DIFFERENT

CALVERT COUNTY PUBLIC SCHOOLS

How are these the SAME but DIFFERENT?

Day 140





SAME BUT DIFFERENT