

Strategies Within 20



Grade 1 | Operations and Algebraic Thinking

NC.1.OA.6

Compute within 20 and make the six listed strategies visible in models, actions, or equations.

Seven teaching phases • 30 selected-response prompts • 30 open/performance tasks. Choose brief sessions across days, not a single 60-item test.

Includes exact standard, teacher models and scripts, anchor reminders, reusable tools, student workspaces, observation records, worked keys, and source notes.

Current NC standards for 2026-27 and 2027-28. Revised 2026 standards begin implementation in 2028-29.

Free sample | Contents

NC.1.OA.6 | First Grade mathematics

This sample contains 23 complete selected pages from the 69-page resource, plus this sample contents page. Original printed page numbers are retained. Gaps are intentional.

Included original pages: 1-22, 54

Representative activities

M01: sample PDF page(s) 22; original page(s) 21

M02: sample PDF page(s) 23; original page(s) 22

O01: sample PDF page(s) 22; original page(s) 21

O02: sample PDF page(s) 23; original page(s) 22

Selected teacher prompts and keys: original page(s) 2, 54

Using this sample

Read the preparation and access guidance before using a selected activity.
Keep teacher keys and private preparation pages separate from student copies.
Use the original resource contents to see the scope of the complete packet.

Complete paid download

The complete resource includes the full PDF task bank and teaching materials.

TEACHER GUIDE

Plan short, purposeful sessions

Print selected student pages only; teacher models and answer keys stay with adults. Each bank page contains one choice prompt and one performance task. Cover the unused prompt when needed.

Suggested sequence: Day 1, warm-up and I Do; Day 2, We Do; Day 3, partner practice; Day 4, independent observations and targeted reteach; Day 5, exit checks. Plan 15-20 minutes per session with breaks and repeat opportunities.

Core selections: M01/O01, M05/O05, M09/O09, M14/O14, M19/O19, M24/O24, M28/O28. These are starting points, not all required work. Use remaining bank items on later dates. For OA.6 select additional O items so every named strategy is observed.

Navigation: alignment and access; complete worked models; seven phase scripts; blank organizers and tools; 30 bank pages; scoring and evidence records; inquiry; 15 paired worked-key pages; sources.

Learning focus: Compute within 20 and make the six listed strategies visible in models, actions, or equations.

Use mathematical practices authentically: make sense of a relationship, choose a tool, explain why a method works, and check another representation. Do not require formal terminology before a child can show the idea.

TEACHER GUIDE

Standard, targets, and boundaries

NC.1.OA.6: Add and subtract, within 20, using strategies such as:

- Counting on
- Making ten
- Decomposing a number leading to a ten
- Using the relationship between addition and subtraction
- Using a number line
- Creating equivalent but simpler or known sums

Evidence targets: Compute within 20 and make the six listed strategies visible in models, actions, or equations.

All expression values and quantities in this packet remain within 20. Different expression arrangements are intentional.

Coverage is mapped by item ID and target in the teacher keys. Recognition items start discussion; open tasks supply the required mathematical performance.

TEACHER GUIDE

Prepare and provide access

Prerequisites: connect numbers to quantities, count accurately, act out addition and subtraction, and notice parts and wholes. Check these with a few safe objects before using written symbols.

Materials: 20 large counters or blocks per child, pencils/crayons, blank paper, supplied ten-frames, number line and reasoning organizer. Use age-appropriate materials; adults handle cutting if cards are separated. No measured printed dimensions are required.

Vocabulary: add, subtract, total, part, whole, equal, same value, equation, unknown, strategy. Demonstrate meanings with quantities and actions; accept home-language explanations.

Visual tools: frames and blank mats support building. OA.7 teaching/reteach pages show quantities on both sides as exact square blocks; independent/exit mats are blank for the child to construct. Record visual access and strategy. Fluency pages offer blank frames for explanation or checking after an initial response, not prefilled answers.

Read every prompt and choice neutrally. Allow pointing, oral response, signed language, AAC, tactile models, enlarged print, and adult scribing. Do not supply a missing count, identify a correct choice, or name the required next step during independent evidence.

Access supports alone do not lower ratings. Document answer-supplying mathematical prompts separately. Do not score reading, spelling, handwriting, speech speed, or accent.

If response is unclear, ask "Show me what you mean." If the task is inaccessible or evidence is insufficient, record N/O and adapt access before trying again.

TEACHER MODEL | ADULT ONLY

Count on

$7 + 3 = 10$. Say: "I keep seven in mind and add three counts: eight, nine, ten. Seven is the start, not the first count." Ask what each count represents.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"

Teacher demonstration mat: build the quantities described above.



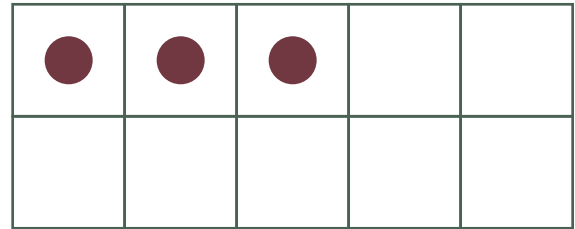
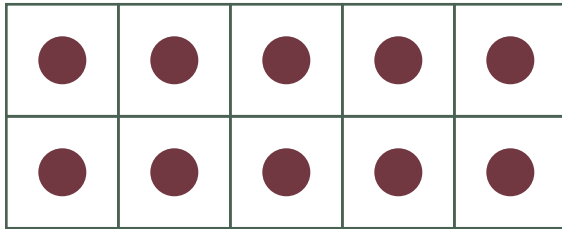
Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER MODEL | ADULT ONLY

Make a ten

$8 + 5 = 13$. Say: "Eight needs two to make ten. I split five into two and three. Eight plus two is ten; ten plus three is thirteen." Fill the first frame with 8 and add 2; place the remaining 3 in the next frame.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"



Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER MODEL | ADULT ONLY

Subtract through ten

$14 - 6 = 8$. Say: "I split six into four and two. Fourteen minus four is ten; ten minus two is eight." The two steps remove six altogether.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"

Teacher demonstration mat: build the quantities described above.



Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER MODEL | ADULT ONLY

Use the inverse relationship

$13 - 8 = 5$. Say: "Eight plus what makes thirteen? Eight plus five is thirteen, so thirteen minus eight is five." Build the whole 13 and show its 8 and 5 parts.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"

Teacher demonstration mat: build the quantities described above.



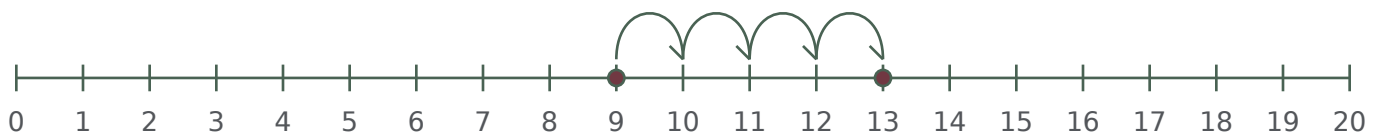
Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER MODEL | ADULT ONLY

Track number-line moves

$9 + 4 = 13$. Say: "Start at nine. Four jumps right land on ten, eleven, twelve, thirteen." For $13 - 4$, reverse the four jumps to land at nine. Count the intervals moved.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"



Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER MODEL | ADULT ONLY

Use an equivalent known sum

$6 + 7 = 13$. Say: "Six plus six is twelve. Seven has one more, so six plus seven is thirteen." Moving one counter does not change the total: $6 + 7$ also equals $5 + 8$. Accept correct efficient alternatives.

Model visibly. Pause after each action and connect the object, drawing, and equation. Say, "What stayed the same? What can we check?"

Teacher demonstration mat: build the quantities described above.



Then hide this completed example and offer a fresh bank task. Record the child's own solution; repeating the teacher's answer is instruction, not independent evidence.

TEACHER GUIDE

Warm-up | teach and observe

Bank allocation: M01-M04 and O01-O04. Core today: M01 and O01. Keep the other items for later practice.

First 1-2 minutes: Invite one familiar example. Ask what the numbers and symbols mean before solving.

Next 2-4 minutes: read " $18 - 9 = \underline{\quad}$ Use number line. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

I Do | teach and observe

Bank allocation: M05-M08 and O05-O08. Core today: M05 and O05. Keep the other items for later practice.

First 1-2 minutes: Say, "Watch me choose a useful way." Model a worked example from the adult model pages, then ask children to describe its steps.

Next 2-4 minutes: read " $14 + 2 = \underline{\quad}$ Use counting on. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

We Do | teach and observe

Bank allocation: M09-M13 and O09-O13. Core today: M09 and O09. Keep the other items for later practice.

First 1-2 minutes: Invite a first step, build it together, and ask a second child to check whether the equation matches.

Next 2-4 minutes: read " $11 - 7 = \underline{\quad}$ Use addition/subtraction relationship. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

Collaborative practice | teach and observe

Bank allocation: M14-M18 and O14-O18. Core today: M14 and O14. Keep the other items for later practice.

First 1-2 minutes: Partners alternate solver and checker. Each child first solves a fresh item alone; the partner asks for a reason rather than supplying an answer.

Next 2-4 minutes: read "15 - 8 = ____ Use decomposing to a ten. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

Independent practice | teach and observe

Bank allocation: M19-M23 and O19-O23. Core today: M19 and O19. Keep the other items for later practice.

First 1-2 minutes: Read neutrally, offer usual access supports, and wait. Do not point to a helpful part or tell which operation to use.

Next 2-4 minutes: read " $9 + 8 = \underline{\quad}$ Use making ten. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

Small-group reteach | teach and observe

Bank allocation: M24-M27 and O24-O27. Core today: M24 and O24. Keep the other items for later practice.

First 1-2 minutes: Use the recorded error to select a concrete model. Demonstrate one example, then fade the support on a fresh item.

Next 2-4 minutes: read " $8 + 9 = \underline{\quad}$ Use equivalent known sums. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

TEACHER GUIDE

Exit ticket | teach and observe

Bank allocation: M28-M30 and O28-O30. Core today: M28 and O28. Keep the other items for later practice.

First 1-2 minutes: Collect one brief individual solution and explanation. Ask what the child checked; use evidence to choose the next session.

Next 2-4 minutes: read " $4 + 5 = \underline{\quad}$ Use equivalent known sums. Show your steps." Say, "You may draw, build, point, or tell me. Show how you know." For I Do, demonstrate first; for other phases, wait for the child's decision.

Listen/look for: For the named strategy, record the child's actual actions or intermediate equations, not only the final number. A different valid strategy gives computation evidence; invite the named strategy separately.

Final 1-3 minutes: say, "How could we check?" Have each learner respond individually. Record exact response, strategy, access supports, mathematical prompts, and next step.

If stuck: If the child counts the starting tick, put a counter at the start and count only moves. If a ten is lost, build the original amount and physically move the split part; show that the amount added or removed is unchanged.

Early finisher: compare another valid method or representation within the same number range. Explain why the value stays the same. Do not just add harder numbers.

STUDENT REFERENCE | USE DURING LEARNING

Ways to check my thinking

Count on from a known amount.

Make a ten by splitting an addend.

Subtract to ten, then subtract the rest.

Use an addition fact to help subtract.

Count moves on a number line.

Use a nearby known sum.

COPY AS NEEDED | STUDENT TOOL

My reasoning organizer

Name _____ Date _____

My equation: _____

Show the quantities or steps.

Check another way.

My answer: _____

Tell an adult how you know.

COPY AS NEEDED | STUDENT TOOLS

Frames and number line

Use counters or draw marks.

Use the line to show moves.



My equation and explanation

WARM-UP

Think, solve, and explain

Name _____ Date _____

M01 | Choose one

$14 - 6 = \underline{\quad}$

Find the answer. Be ready to share a strategy.

A. 8 B. 9 C. 7

O01 | Show your thinking

$18 - 9 = \underline{\quad}$

Use number line. Show your steps.



Draw or write here. You may also build and explain.

Adult: record visual/tool use separately from mathematical prompts.

TEACHER-ONLY KEYS

Items 01-02

M01 | A: 8

Target: S4: Addition/subtraction relationship within 20.

$14 - 6 = 8$. $6 + 8 = 14$, so $14 - 6 = 8$. The known part and missing part make the whole.

Other choices: Each other number fails the equation. Ask the child to reconstruct the quantity or check a substitution; do not infer a misconception from a choice alone.

001 | Sample response

Target: S5: Number line within 20.

$18 - 9 = 9$. Start at 18 on the number line. Move 9 unit jumps left. Land at 9. Count jumps, not the starting tick.

Accept mathematically equivalent explanations, models, or communication modes. Record support and strategy.

M02 | A: 13

Target: S2: Making ten within 20.

$8 + 5 = 13$. Split 5 into 2 and 3. $8 + 2 = 10$; $10 + 3 = 13$.

Other choices: Each other number fails the equation. Ask the child to reconstruct the quantity or check a substitution; do not infer a misconception from a choice alone.

002 | Sample response

Target: S3: Decomposing to a ten within 20.

$12 - 7 = 5$. Split 7 into 2 and 5. $12 - 2 = 10$; $10 - 5 = 5$.

Accept mathematically equivalent explanations, models, or communication modes. Record support and strategy.