

Three groups, one total



Grade 1 • Operations and Algebraic Thinking **NC.1.OA.2**

Teacher scripts • Models • Student workspaces
30 choice tasks • 30 open/performance tasks
Worked keys • Observation records • Access supports

Use selected tasks across short lessons. This resource bank is not a single test. Aligned to current NC standards for 2026–27 and 2027–28; the 2026 adoption begins in 2028–29.

Free sample | Contents

NC.1.OA.2 | First Grade mathematics

This sample contains 17 complete selected pages from the 62-page resource, plus this sample contents page. Original printed page numbers are retained. Gaps are intentional.

Included original pages: 1-14, 29, 44, 52

Representative activities

M01: sample PDF page(s) 15; original page(s) 14

M02: sample PDF page(s) 15; original page(s) 14

O01: sample PDF page(s) 16; original page(s) 29

O02: sample PDF page(s) 16; original page(s) 29

Selected teacher prompts and keys: original page(s) 44, 52

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

Standard, targets, and evidence

Exact North Carolina standard

Represent and solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, by using objects, drawings, and equations with a symbol for the unknown number.

Learning targets

- Represent and solve a three-addend word problem with sum at most 20

Evidence that matters

The child preserves all three groups in an object model, drawing, and equation, finds the total, and explains which groups were joined. A correct number alone does not demonstrate all representations.

TEACHER GUIDE

Prepare and plan

Before the lesson

Check one-to-one counting to 20, counting on from a given number, and the meaning of $+$, $-$, and $=$. If a prerequisite blocks access, teach it briefly and record the target as N/O until interpretable evidence is available.

Materials: 20 large classroom counters or blocks per child, paper, crayons, and the blank organizer. For three groups use three mats or areas. Use age-appropriate objects; adults handle any cutting. No real food or small loose objects are needed.

Short sessions, not one long sitting

Session 1 (15–20 min): Warm-up M01/O01; I Do M05/O05. Session 2 (15–20 min): We Do M09/O09 and collaborative M14/O14. Session 3 (15–20 min): independent M19/O19, then exit M28/O28. Session 4: targeted reteach M24/O24 and new parallel items chosen from the bank. Pause sooner for attention or access needs.

Each section owns both M and O ranges: 01–04, 05–08, 09–13, 14–18, 19–23, 24–27, 28–30. Select additional items over days so every target is observed. Never use all 60 as one sitting. Student pages can be printed separately; teacher models and keys stay teacher-only.

Choice tasks include block pictures of given quantities for supported practice; no missing group is pre-filled. Open tasks provide fresh performance evidence with blank workspaces. Blocks stand for the objects in each story. Keep teacher demonstrations separate from independent checks.

Access without giving away mathematics

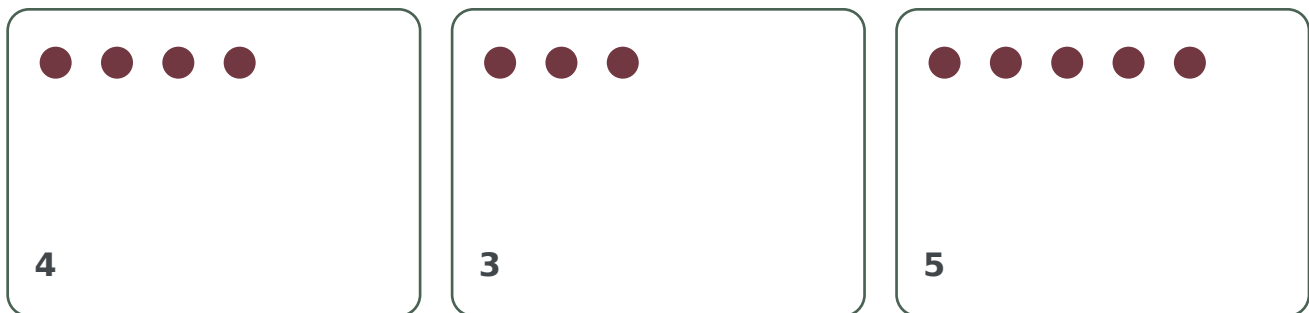
Read prompts exactly and repeat neutrally. Allow pointing, AAC, signed or oral responses, dictation, large counters, and drawings. An adult may transcribe the child's equation without choosing it. Do not tell the child which operation, group, or number is the answer during independent evidence. Log such coaching separately and recheck later with a fresh task.

TEACHER ONLY | MODEL AND SAY

Worked model: Keep three groups

A tray has 4 red, 3 blue, and 5 green blocks. How many blocks in all?

Say: I need all three groups, not just the first two. I make 4, 3, and 5. I write $4 + 3 + 5 = ?$. First $4 + 3 = 7$. Then $7 + 5 = 12$. The total is 12.



Model quantities shown above: each dot is one object.

Draw each group before joining them. Label the three parts and check that the drawing contains 12 marks. Ask a child to point to each story number in the model.

Watch and respond

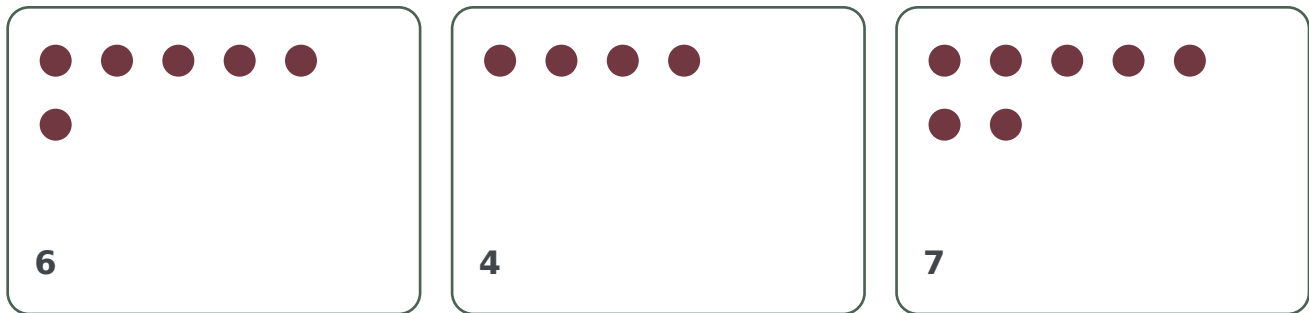
Ask: Point to the known numbers. What does the unknown stand for? Listen before intervening. If the child counts the wrong quantity, return to the model and ask which part answers the question. Then use a different task to check independently.

TEACHER ONLY | MODEL AND SAY

Worked model: Choose a useful pair

A tray has 6 red, 4 blue, and 7 green blocks. How many blocks in all?

Say: I need all three groups, not just the first two. I make 6, 4, and 7. I write $6 + 4 + 7 = ?$. First $6 + 4 = 10$. Then $10 + 7 = 17$. The total is 17.



Model quantities shown above: each dot is one object.

Draw each group before joining them. Label the three parts and check that the drawing contains 17 marks. Ask a child to point to each story number in the model.

Watch and respond

Ask: Point to the known numbers. What does the unknown stand for? Listen before intervening. If the child counts the wrong quantity, return to the model and ask which part answers the question. Then use a different task to check independently.

TEACHER GUIDE

Warm-up teaching script

Bank: M01–M04 and O01–O04. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: There are 2 red books, 3 blue books, and 4 green books. How many in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Invite a first attempt. Ask the child to show one object for each count. Use M01 only after hearing the child's thinking. Do not teach a keyword rule.

Teacher solution

Unknown equation: $2 + 3 + 4 = ?$. 9 books. $2 + 3 + 4 = 9$. Make three separate groups of 2, 3, and 4. Join the first two to make 5, then add 4 to get 9. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

I Do teaching script

Bank: M05–M08 and O05–O08. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: Mia has 6 crayons. Leo has 4. Jo has 1. How many do they have in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Demonstrate the selected task using the exact worked steps below. Think aloud about the unknown. Draw the model and record the equation. Children point to corresponding quantities, then try the next open item.

Teacher solution

Unknown equation: $6 + 4 + 1 = ?$. 11 crayons. $6 + 4 + 1 = 11$. Make three separate groups of 6, 4, and 1. Join the first two to make 10, then add 1 to get 11. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

We Do teaching script

Bank: M09–M13 and O09–O13. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: A box has 5 tiles. Mia puts in 3 more, then 5 more. How many are in the box now? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Ask children to propose the first move. Build their model together. Pause before calculating so they can identify each quantity. Record the equation they suggest and test it.

Teacher solution

Unknown equation: $5 + 3 + 5 = ?$. 13 tiles. $5 + 3 + 5 = 13$. Make three separate groups of 5, 3, and 5. Join the first two to make 8, then add 5 to get 13. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

Collaborative practice teaching script

Bank: M14–M18 and O14–O18. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: Mia has 6 shells. Leo has 4. Jo has 7. How many do they have in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Partner A models; Partner B checks that each number is represented and explains the answer. Switch roles with the next item. Each child makes an individual drawing or dictated record.

Teacher solution

Unknown equation: $6 + 4 + 7 = ?$. 17 shells. $6 + 4 + 7 = 17$. Make three separate groups of 6, 4, and 7. Join the first two to make 10, then add 7 to get 17. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

Independent practice teaching script

Bank: M19–M23 and O19–O23. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: There are 4 red tiles, 6 blue tiles, and 2 green tiles. How many in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Present the selected open task before the choice task. Give neutral directions and access tools only. Observe how the child chooses a strategy without supplying a first step.

Teacher solution

Unknown equation: $4 + 6 + 2 = ?$. 12 tiles. $4 + 6 + 2 = 12$. Make three separate groups of 4, 6, and 2. Join the first two to make 10, then add 2 to get 12. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

Small-group reteach teaching script

Bank: M24–M27 and O24–O27. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: A box has 2 shells. Mia puts in 8 more, then 5 more. How many are in the box now? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Use large counters and the blank organizer. Start with a smaller parallel example, then return to this task. Ask the child to move objects and identify the unknown. Record the teaching support; do not score a coached answer as independent.

Teacher solution

Unknown equation: $2 + 8 + 5 = ?$. 15 shells. $2 + 8 + 5 = 15$. Make three separate groups of 2, 8, and 5. Join the first two to make 10, then add 5 to get 15. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

TEACHER GUIDE

Exit ticket teaching script

Bank: M28–M30 and O28–O30. Selected focus: Represent and solve a three-addend word problem with sum at most 20. Use about 5–10 minutes; adjust responsively.

0–2 min | Launch

Say: Listen to the problem. Tell or show me what you know and what you need to find. Read the selected prompt neutrally: There are 5 red cups, 7 blue cups, and 8 green cups. How many in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.

2–5 min | Work and talk

Give one fresh task and ask the child to show why the answer fits. Keep it brief. Use another bank item if the selected task was already modeled. Save the individual evidence.

Teacher solution

Unknown equation: $5 + 7 + 8 = ?$. 20 cups. $5 + 7 + 8 = 20$. Make three separate groups of 5, 7, and 8. Join the first two to make 12, then add 8 to get 20. Keep all three groups in the drawing.

5–8 min | Notice and respond

Look for all three groups. If one is omitted, have the child point to each story number and its objects. If a subtotal is reported, ask whether any group has not yet been joined.

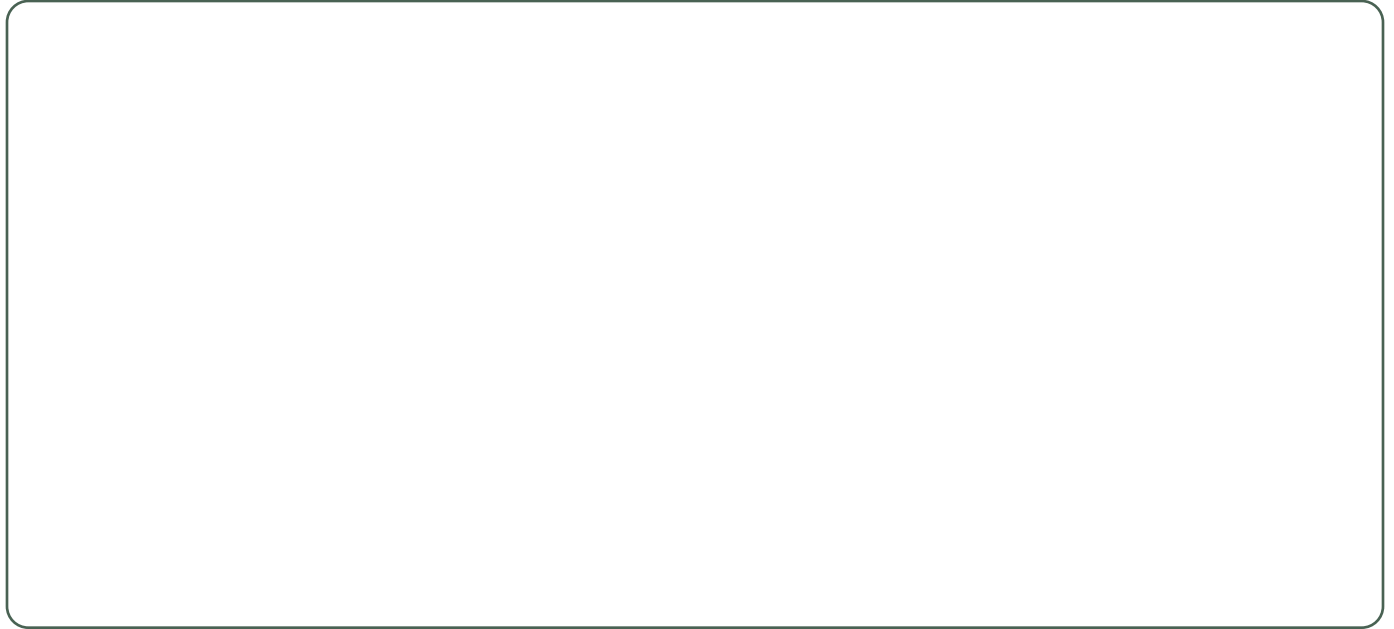
Extend: Ask for a second valid representation or strategy and explain how it matches. Record item/date, representation, strategy, result, explanation, neutral access, answer-supplying cues, and the next task. Invite a partner to question the model respectfully (MP3); connect objects and equations (MP2/MP4).

STUDENT TOOL | REUSE WITH ANY OPEN TASK

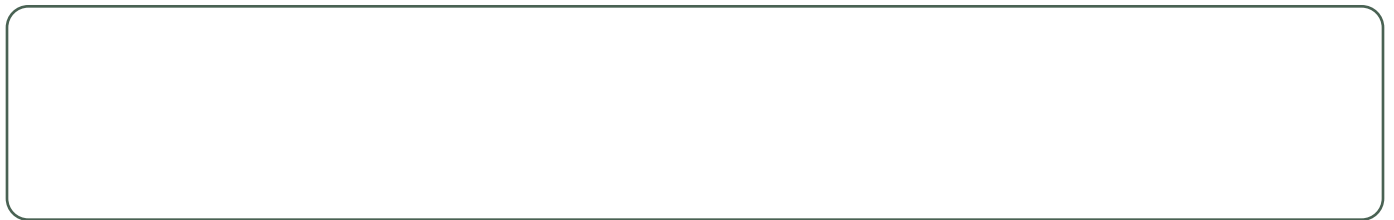
My math organizer

Name: _____ Item: _____

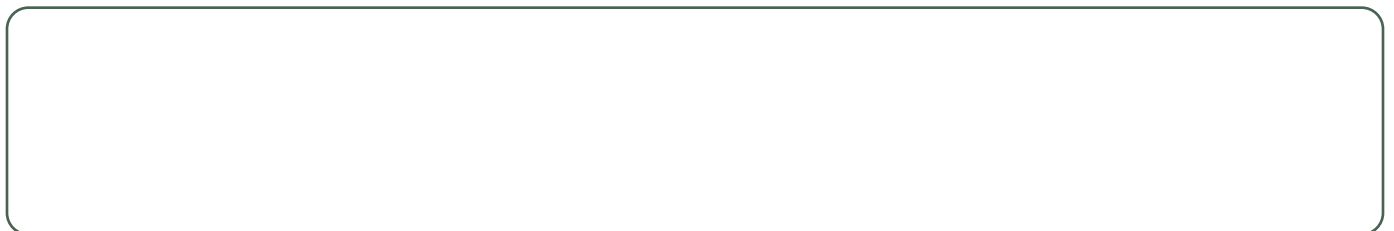
Show the groups or the change.



My equation:



Tell or show how you know.



STUDENT TASKS | ADULT MAY READ

Choose and explain

Name: _____

M01 There are 2 red books, 3 blue books, and 4 green books.
How many in all?

A. 9

B. 10

C. 11

D. 12

Picture help: given amounts

**2****3****4**

Draw or tell why.

M02 Mia has 5 blocks. Leo has 1. Jo has 2. How many do they have in all?

A. 8

B. 5

C. 7

D. 6

Picture help: given amounts

**5****1****2**

Draw or tell why.

STUDENT TASKS | ADULT MAY READ

Build, draw, and solve

Name: _____

O01 There are 2 red books, 3 blue books, and 4 green books. How many in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.



O02 Mia has 5 blocks. Leo has 1. Jo has 2. How many do they have in all? Use objects. Draw all three groups. Write an equation with ? for the total, then solve.



TEACHER ONLY | WORKED SOLUTIONS

Choice keys

M01 | Three-addend story

A: Unknown equation: $2 + 3 + 4 = ?$. 9 books. $2 + 3 + 4 = 9$. Make three separate groups of 2, 3, and 4. Join the first two to make 5, then add 4 to get 9. Keep all three groups in the drawing.

Other choices: $B = 10$, $C = 11$, $D = 12$. These do not satisfy the stated quantities; ask the child to check each group or count rather than infer a misconception from a choice alone.

M02 | Three-addend story

A: Unknown equation: $5 + 1 + 2 = ?$. 8 blocks. $5 + 1 + 2 = 8$. Make three separate groups of 5, 1, and 2. Join the first two to make 6, then add 2 to get 8. Keep all three groups in the drawing.

Other choices: $B = 5$, $C = 7$, $D = 6$. These do not satisfy the stated quantities; ask the child to check each group or count rather than infer a misconception from a choice alone.

M03 | Three-addend story

D: Unknown equation: $3 + 4 + 3 = ?$. 10 cards. $3 + 4 + 3 = 10$. Make three separate groups of 3, 4, and 3. Join the first two to make 7, then add 3 to get 10. Keep all three groups in the drawing.

Other choices: $A = 12$, $B = 11$, $C = 9$. These do not satisfy the stated quantities; ask the child to check each group or count rather than infer a misconception from a choice alone.

M04 | Three-addend story

B: Unknown equation: $4 + 2 + 5 = ?$. 11 shells. $4 + 2 + 5 = 11$. Make three separate groups of 4, 2, and 5. Join the first two to make 6, then add 5 to get 11. Keep all three groups in the drawing.

Other choices: $A = 12$, $C = 9$, $D = 10$. These do not satisfy the stated quantities; ask the child to check each group or count rather than infer a misconception from a choice alone.

TEACHER ONLY | WORKED SOLUTIONS

Open / performance keys

001 | Three-addend story

Unknown equation: $2 + 3 + 4 = ?$. 9 books. $2 + 3 + 4 = 9$. Make three separate groups of 2, 3, and 4. Join the first two to make 5, then add 4 to get 9. Keep all three groups in the drawing.

Accept equivalent correct drawings, object arrangements, equations, or explanations. Observe the requested strategy/representations; an answer alone is not full performance evidence.

002 | Three-addend story

Unknown equation: $5 + 1 + 2 = ?$. 8 blocks. $5 + 1 + 2 = 8$. Make three separate groups of 5, 1, and 2. Join the first two to make 6, then add 2 to get 8. Keep all three groups in the drawing.

Accept equivalent correct drawings, object arrangements, equations, or explanations. Observe the requested strategy/representations; an answer alone is not full performance evidence.

003 | Three-addend story

Unknown equation: $3 + 4 + 3 = ?$. 10 cards. $3 + 4 + 3 = 10$. Make three separate groups of 3, 4, and 3. Join the first two to make 7, then add 3 to get 10. Keep all three groups in the drawing.

Accept equivalent correct drawings, object arrangements, equations, or explanations. Observe the requested strategy/representations; an answer alone is not full performance evidence.

004 | Three-addend story

Unknown equation: $4 + 2 + 5 = ?$. 11 shells. $4 + 2 + 5 = 11$. Make three separate groups of 4, 2, and 5. Join the first two to make 6, then add 5 to get 11. Keep all three groups in the drawing.

Accept equivalent correct drawings, object arrangements, equations, or explanations. Observe the requested strategy/representations; an answer alone is not full performance evidence.