

Coins and equal penny values



NC.1.MD.5 | Identify quarters, dimes, and nickels and relate their values to pennies.

A multi-session teaching packet and reusable 60-item bank.

Includes seven teaching sections, worked models, student organizers, 30 choice tasks, 30 performance tasks, full keys and evidence records.

Current NC implementation set, 2026-27 / 2027-28. Revised standards adopted in 2026 are not used here.

Free sample | Contents

NC.1.MD.5 | First Grade mathematics

This sample contains 20 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: 1-17, 32, 49, 59

Representative activities

M01: sample PDF page(s) 18; original page(s) 17

M02: sample PDF page(s) 18; original page(s) 17

O01: sample PDF page(s) 19; original page(s) 32

O02: sample PDF page(s) 19; original page(s) 32

Selected teacher prompts and keys: original page(s) 49, 59

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 and find your pages

Teach in short sessions; do not give all 60 tasks in one sitting. Select only the pages needed. Choice cards provide secondary evidence; open tasks require the actual mathematical performance.

Session 1 (about 20 minutes): Warm-up and I Do. Session 2 (about 20 minutes): We Do and the first collaborative task. Session 3 (about 20 minutes): Finish collaboration and begin independent observations. Session 4 (about 20 minutes): Reteach identified needs and collect an exit sample. Shorten or split observations to match attention and access needs.

Each section gives exact bank IDs. Its minutes describe a selected core, not completion of every listed bank task. The seven core selections together use about 80 minutes across sessions.

Print navigation: teacher guide and scripts first; reusable organizers/templates next; then choice pages and performance pages; evidence record and teacher-only keys at the end. Student pages contain no preparation answers.

Teacher prepares materials from each item's key before distributing the student page. In partnered tasks, retain evidence from each child. Use fresh unused cards for later checks rather than rehearsing the same assessment.

TEACHER GUIDE

Exact standard and coverage

NC.1.MD.5: Identify quarters, dimes, and nickels and relate their values to pennies.

Student learning targets

I can identify actual U.S. quarters, dimes and nickels.

I can relate a nickel to 5 pennies, a dime to 10 pennies, and a quarter to 25 pennies.

Evidence: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Essential question: How can I show my answer is supported by the objects, clock, coin, or data I used?

TEACHER GUIDE

Prepare, support, and notice

Prerequisites: Count to 25 with one-to-one correspondence. Establish that one penny is worth 1 cent. Identity and value are different: the dime is smaller than the nickel but worth more.

Materials: Actual circulating U.S. nickel, dime and quarter; optional actual penny for comparison; 25 large paper penny counters supplied here. Adults handle actual coins when small-object safety is a concern; keep coins out of mouths and use direct supervision. A magnifier or enlarged live camera view of the same coins is an access support.

Vocabulary: penny, nickel, dime, quarter, cent, value, equal value.

Access: Read directions neutrally. Allow oral, signed, AAC, drawn, built or dictated answers. Use high contrast, enlarged print, an accessible surface, or assisted manipulation following the child's exact instructions. Do not lower a rating for handwriting, spelling or accent.

Keep access support separate from mathematical help. Naming a coin, pointing to a correct clock hand, counting a row, or selecting units for the child supplies part of the target; record it as a cue. N/O means evidence was inaccessible or unobserved, not wrong.

Safety: Adults handle cutting and actual coins; use large paper counters where small objects pose a risk.

TEACHER GUIDE

Worked model and anchor

Show a real nickel, front, back and edge. Say: "This is a nickel. It is worth 5 cents. Each penny is worth 1 cent, so five pennies have the same value." Build five penny counters and count them. Repeat with a real dime and 10 counters, then quarter and 25. Show both sides again in a new order; designs on both sides can vary. Explain that our labeled paper tokens are teaching models, not pictures used to test real-coin recognition.

Anchor language: Nickel = 5 cents = 5 pennies. Dime = 10 cents = 10 pennies. Quarter = 25 cents = 25 pennies. Look at actual front, reverse, edge and relative size. Coin size is not its value.



Labeled teaching tokens; not coin images or legal tender.

TEACHER GUIDE

Respond to misconceptions

If the child chooses the largest coin as always having the most pennies, compare real nickel and dime and build their penny values. If recognition depends on face orientation, turn the same coin over and rotate it before asking again. Do not use a labeled teaching token as evidence that the child recognized a real coin.

After instruction, offer a different item. Say, "Show your thinking with these materials." Do not repeat the corrective hint before collecting independent evidence. Record the first response, any self-correction, and what changed.

Extension: Session 1: Make three real-coin/penny-counter matches. Session 2: A partner rearranges the penny counters without adding or removing any; check equal value again. Session 3: Repair a deliberately mismatched tray and explain the correction. Do not introduce mixed-coin totals as an unannounced requirement.

Keep the standard boundary: Identify quarters, dimes and nickels and relate each to pennies. Mixed-coin addition is not required.

TEACHER GUIDE

Warm-up | teach

Selected core: M01 / O01. Optional bank: M01-M04 and O01-O04. About 8 minutes; split if needed.

0-2 min: Invite the materials without naming the solution. Say, "What do you notice that could help?"

2-5 min: Read M01 exactly and let each learner select privately. Ask, "What helped you decide?"

5-8 min: Offer O01. Record initial actions and words. Do not complete the mathematical step for the child.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

I Do | teach

Selected core: M05 / O05. Optional bank: M05-M08 and O05-O08. About 12 minutes; split if needed.

0-3 min: Prepare the worked model on the earlier model page. Say, "Watch how I check each part."

3-8 min: Show a real nickel, front, back and edge. Say: "This is a nickel. It is worth 5 cents. Each penny is worth 1 cent, so five pennies have the same value." Build five penny counters and count them. Repeat with a real dime and 10 counters, then quarter and 25. Show both sides again in a new order; designs on both sides can vary. Explain that our labeled paper tokens are teaching models, not pictures used to test real-coin recognition.

8-12 min: Use M05 and explain its keyed reasoning. Demonstrate O05 with learner participation; label this supported evidence, not independent performance.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

We Do | teach

Selected core: M09 / O09. Optional bank: M09-M13 and O09-O13. About 15 minutes; split if needed.

0-3 min: Ask, "What should we do first? Why?" Wait for a child to select the mathematical step.

3-9 min: Solve M09 together. Test suggested answers against the diagram or materials; do not vote for the most popular answer.

9-15 min: Work O09, pausing before each decision. Ask individuals to show one step, then retell the complete result.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

Collaborative practice | teach

Selected core: M14 / O14. Optional bank: M14-M18 and O14-O18. About 13 minutes; split if needed.

0-2 min: Assign maker and checker. Say, "Each of you will make and explain your own answer."

2-8 min: Use O14, then switch roles on O15. The checker reconstructs rather than copies. Keep separate observations.

8-13 min: Use M14 as a discussion check. Ask each learner, "How can you prove it with what is here?"

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

Independent practice | teach

Selected core: M19 / O19. Optional bank: M19-M23 and O19-O23. About 17 minutes; split if needed.

0-3 min: Provide neutral directions and agreed access supports. Say, "Show your own thinking. You may build, point, talk or draw."

3-12 min: Observe O19 individually, then use an unused task if another sample is needed. Do not coach the target skill.

12-17 min: Offer M19 as secondary evidence. Save the learner's model, drawing, spoken record or exact actions.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

Small-group reteach | teach

Selected core: M24 / O24. Optional bank: M24-M27 and O24-O27. About 10 minutes; split if needed.

0-2 min: Select a misconception from the evidence record rather than a total score.

2-6 min: If the child chooses the largest coin as always having the most pennies, compare real nickel and dime and build their penny values. If recognition depends on face orientation, turn the same coin over and rotate it before asking again. Do not use a labeled teaching token as evidence that the child recognized a real coin.

6-10 min: Try O24 after fading the teaching cue. Use M24 to discuss the changed method. Record which support remains.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER GUIDE

Exit ticket | teach

Selected core: M28 / O28. Optional bank: M28-M30 and O28-O30. About 5 minutes; split if needed.

0-1 min: Make the materials accessible and read the core task neutrally.

1-4 min: Collect O28 individually. If time remains, use M28. Ask, "What is your evidence?"

4-5 min: Record one next teaching step. If there was no interpretable opportunity, mark N/O and plan a fresh observation.

Look/listen for: Record the actual coin shown, sides viewed, name selected, exact number of penny counters, and the explanation of equal value. Include all three coin types across fresh opportunities.

Record item/date, first response, access support, mathematical cues and next step. Early finishers explain a second check or test a changed arrangement; speed is not the target.

TEACHER REFERENCE | CHECKED OCTOBER 19, 2026

Recognize actual coin designs

Use actual circulating U.S. coins and privately verify each denomination before the task. Show both sides and the edge. Start with familiar designs, then offer a verified different design as a fresh recognition opportunity. Do not score a correct unfamiliar coin as wrong because its portrait differs.

Nickel: 5 cents; smooth edge; larger than a dime and smaller than a quarter. Dime: 10 cents; ridged edge; smallest of these three. Quarter: 25 cents; ridged edge; largest of these three. Size and edge are useful together, but coin size alone does not determine value.

Many earlier dimes show Roosevelt and many earlier quarters show Washington. In 2026 the U.S. Mint issued an Emerging Liberty dime and special quarter designs. Do not teach that every dime must show Roosevelt or every quarter must show Washington. The denomination and penny value stay the same across these designs.

Teacher source: U.S. Mint Coin Specifications, accessed October 19, 2026. This source verifies relative diameters and edges and identifies the 2026 design changes.

<https://www.usmint.gov/learn/coins-and-medals/circulating-coins/coin-specifications>

Additional official design references:

<https://www.usmint.gov/learn/coins-and-medals/circulating-coins/dime>

<https://www.usmint.gov/learn/coins-and-medals/circulating-coins/quarter>

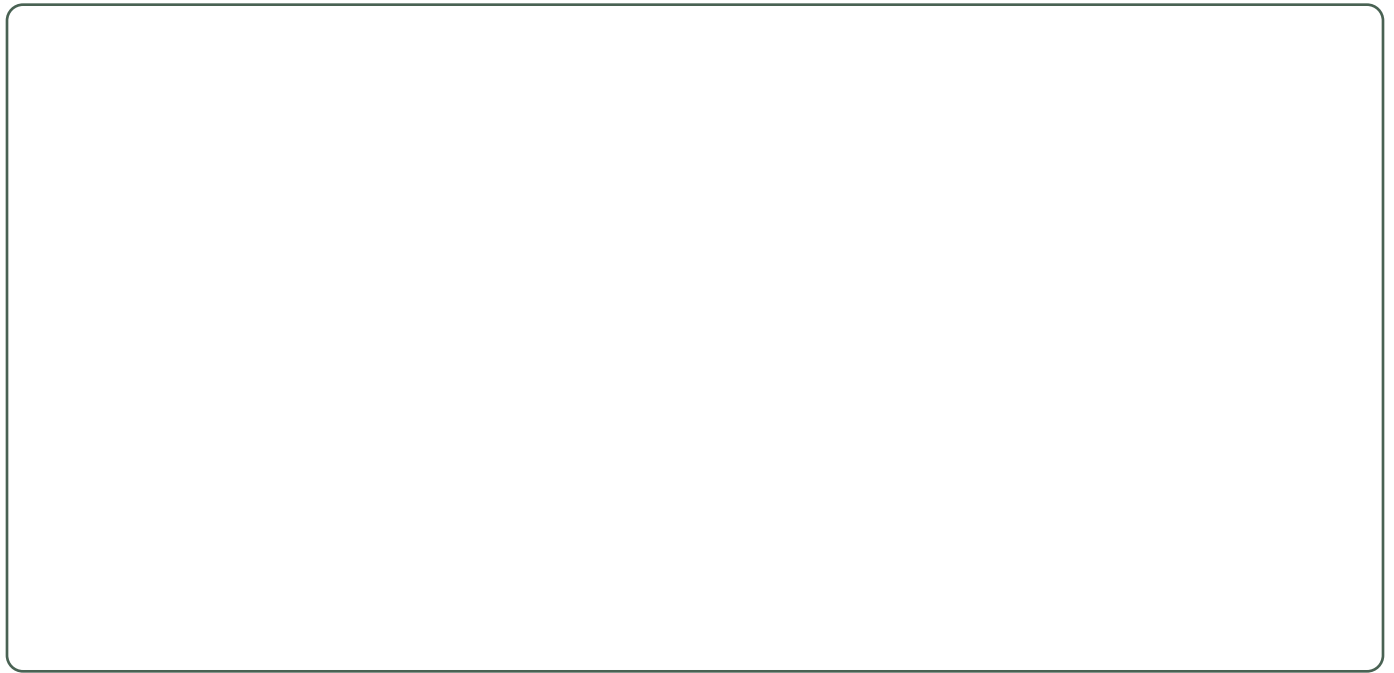
No official coin photographs are reproduced in this packet. Labeled circle tokens model value only; they do not replace real-coin recognition evidence.

STUDENT ORGANIZER

My reusable work mat

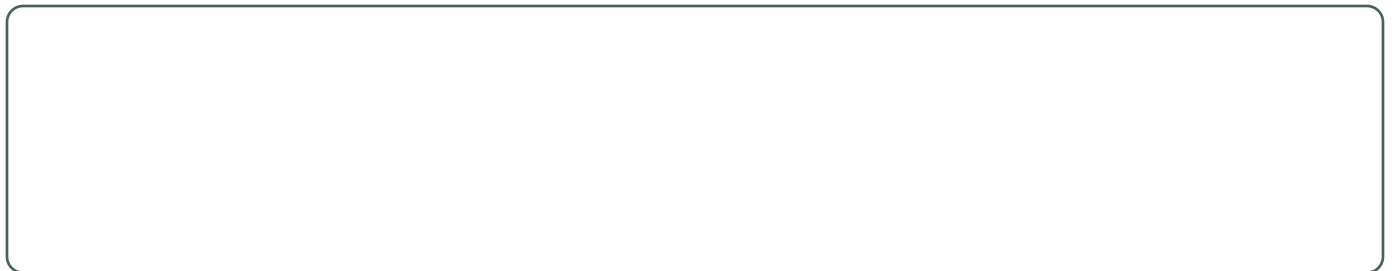
Actual coin I named: _____

Show the equal value in penny counters.



One _____ = _____ pennies.

How I know:



ADULT CUTS | TEACHING MODELS

Large penny counters

Each large circle represents one penny worth 1 cent. These are original labeled teaching counters, not images of currency or legal tender. Use these for value models and actual coins for identification. Adults cut; reuse counters.



LISTEN AND CHOOSE

M01 and M02**M01 | Warm-up**

Coin puzzle 1: One nickel is worth how many pennies?

- A. 10
- B. 1
- C. 25
- D. 5

M02 | Warm-up

Coin puzzle 2: Which coin has the same value as 10 pennies?

- A. penny
- B. dime
- C. quarter
- D. nickel

SHOW YOUR THINKING

001 and 002

001 | Warm-up

Coin tray 1: Name the coin. Build the same value with penny counters. Explain. Turn the coin over to check.

002 | Warm-up

Coin tray 2: Sort the three coins. Name each and record its value in pennies. Turn the coin over to check.

TEACHER ONLY | DO NOT DISPLAY DURING ASSESSMENT

M01-M03 | full keys

M01 - D. 5

A nickel is worth 5 cents; a penny is worth 1 cent, so 5 pennies have the same value.

M02 - B. dime

10 pennies are worth 10 cents. One dime is worth 10 cents.

M03 - B. 25

A quarter is worth 25 cents; a penny is worth 1 cent, so 25 pennies have the same value.

TEACHER ONLY | DO NOT DISPLAY DURING ASSESSMENT

001-003 | full keys

001 - sample performance

Preparation: Privately supply one real dime, both sides available, and at least 25 large penny counters. No name or value labels on the coin.

Names dime, selects exactly 10 penny counters, and explains each penny is 1 cent, so 10 pennies match one dime. Observe both recognition and equivalence. The additional check preserves coin identity and total penny value; rearranging or rotating does not add or remove value. Record the check as well as the initial response.

Target: Identify actual coin and construct penny equivalence. Accept equivalent correct explanations and valid response routes.

002 - sample performance

Preparation: Supply one actual circulating U.S. nickel, dime and quarter, shuffled. Vary faces shown and orientation; do not arrange by value.

Names all three: nickel = 5 pennies; dime = 10 pennies; quarter = 25 pennies. Correctly associates each real coin with its name and builds or records its penny value. The dime is physically smaller than the nickel but worth more. The additional check preserves coin identity and total penny value; rearranging or rotating does not add or remove value. Record the check as well as the initial response.

Target: Identify all three coins and penny relationships. Accept equivalent correct explanations and valid response routes.

003 - sample performance

Preparation: Supply actual nickel, dime and quarter, shuffled, plus 25 large penny counters. Adult handles coins if small objects are unsafe.

Selects the actual nickel and builds 5 pennies. Checks by counting each penny once or grouping and counting all pennies. Value is 5 cents; physical coin size alone does not determine value. The additional check preserves coin identity and total penny value; rearranging or rotating does not add or remove value. Record the check as well as the initial response.

Target: Select an actual named coin and relate to pennies. Accept equivalent correct explanations and valid response routes.