

THE HERO ACADEMY

The Hero's Quest for Knowledge Curriculum

The Architect's Blueprint

Student Workbook

Mathematics

Veritas. Virtus. Scientia.

Truth. Virtue. Knowledge.

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Edition 0.3 | September 29, 2026

MATH-K-01 | printable section

Includes MATH-K-01. These introductory sections do not constitute a complete kindergarten course or a finished K-12 curriculum.

The four companion books

The Student Book explains concepts through reading, examples, and diagrams. The Adult Teaching Guide provides modeling and supported practice. The Student Workbook holds activities and checks. The Answer and Assessment Guide supplies keys, criteria, and retry guidance.

The K-12 learning roadmap is the plan for future content, not a lesson book. These four growing books contain only the sections listed below.

Using this edition

A beginning reader needs an adult to read the explanatory passages aloud. Independent word reading is expected only for explicitly taught patterns in Reading. An adult supplies safe materials and supports access; oral responses, pointing, or drawings can demonstrate the same skill.

Lesson and activity IDs stay together across the four books. For example, a lesson ending L01 links to the activity ending W01 in the same unit. Each unit finishes with its A01 section check. Matching edition 0.3 components should be used together.

Contents

MATH-K-01 | Counting and quantities

MATH-K-01-L01 - One object, one count

MATH-K-01-L02 - The last number tells how many

MATH-K-01-L03 - Numerals record quantities

Learning at an individual pace

The learner revisits the relevant explanation after feedback, then tries a fresh example. Successful demonstration of each target is a suggested local progression rule, not a validated placement score. Personal beliefs and agreement with the author are never graded.

Counting and quantities

Before this section

No numeral writing or independent reading is required. The learner may point, move objects, or answer orally.

Materials

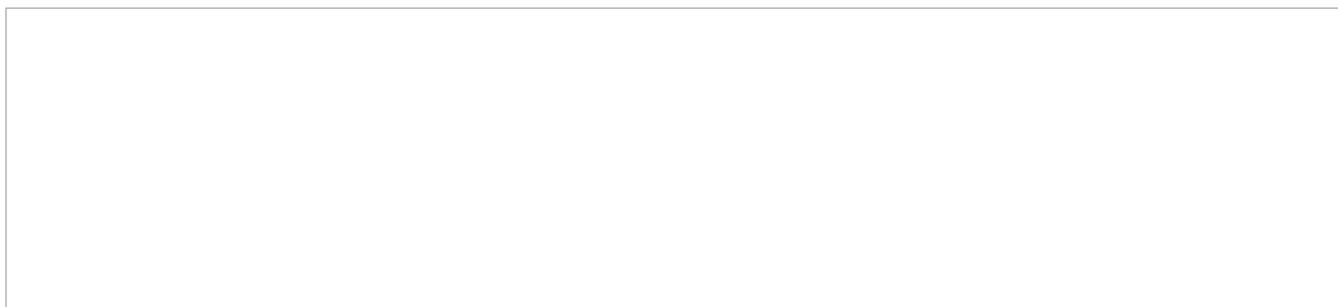
Five large blocks or other age-appropriate counting objects, paper for numeral cards, a pencil, and the workbook. An adult checks that objects are safe to handle.

One object, one count

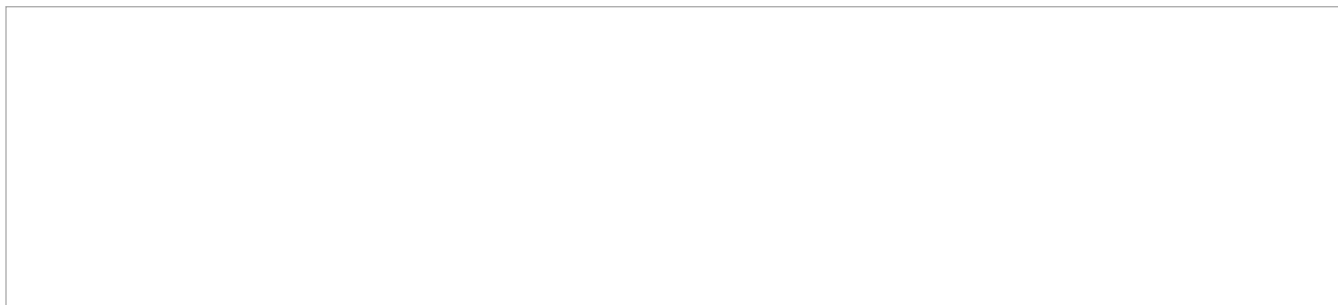
Count a small group without skipping or counting an object twice.

Reading and teaching reference: MATH-K-01-L01

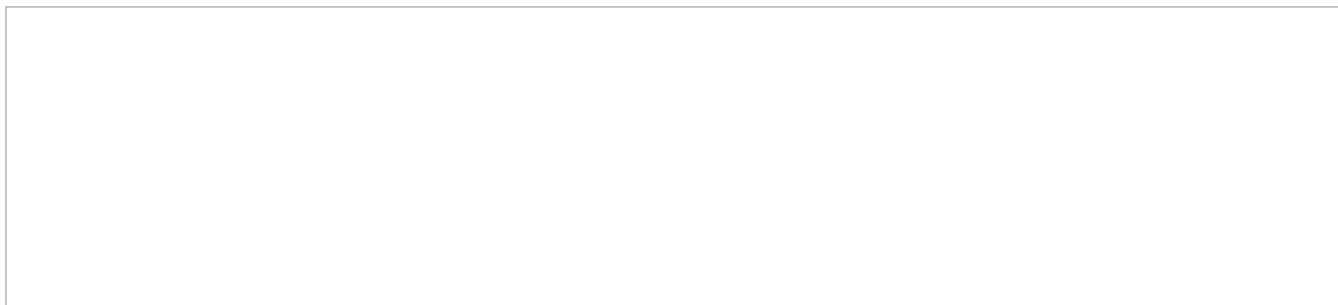
1. The learner draws or places two marks in the response box, counts each once, and states the total.



2. An adult places three large blocks on the table. The learner counts and tells how many blocks there are.



3. An adult touches the first of two blocks twice while counting one, two, three. The learner shows how to check the count.



Response method / adult support: _____

The last number tells how many

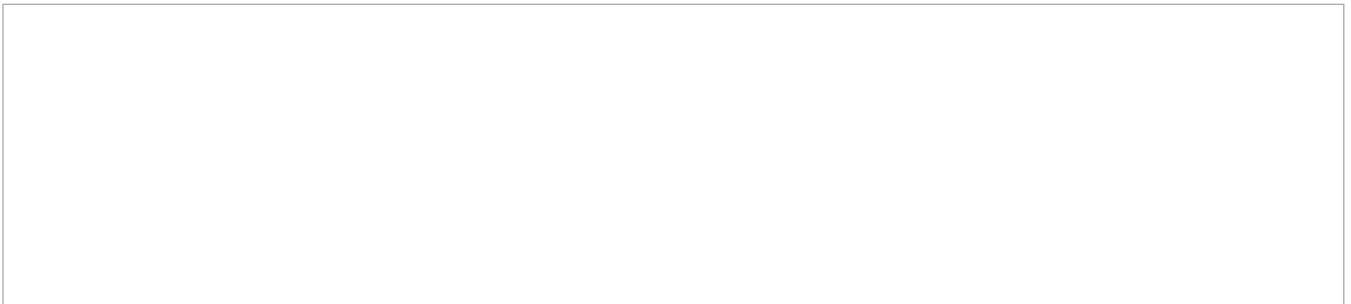
Recognize that rearranging an unchanged group does not change its quantity.

Reading and teaching reference: MATH-K-01-L02

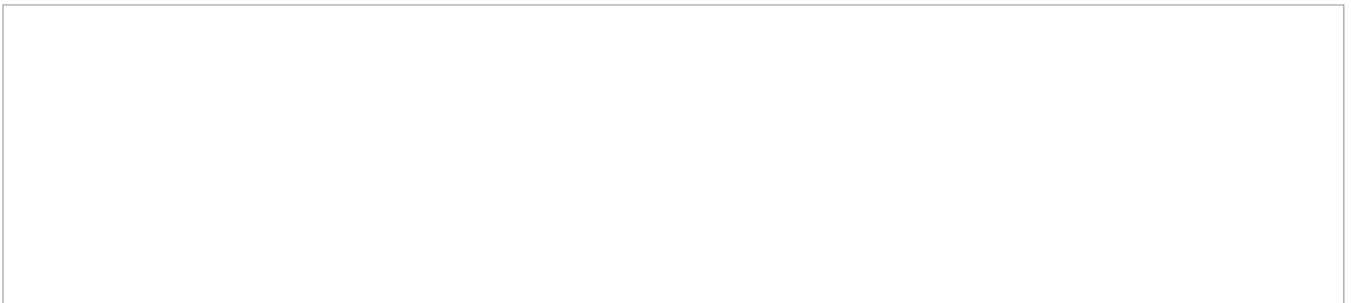
1. The learner counts four objects, draws their first arrangement, then draws a different arrangement of the same four objects.



2. An adult spreads the four objects apart without adding or removing any. The learner states the new total.



3. An adult adds one object to those four. The learner counts the new group and states the total.



Response method / adult support: _____

Numerals record quantities

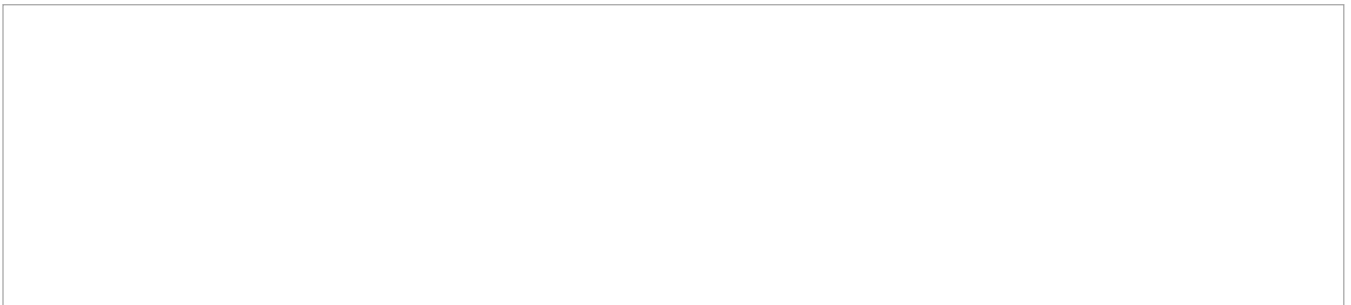
Match the numerals 0-5 to small quantities.

Reading and teaching reference: MATH-K-01-L03

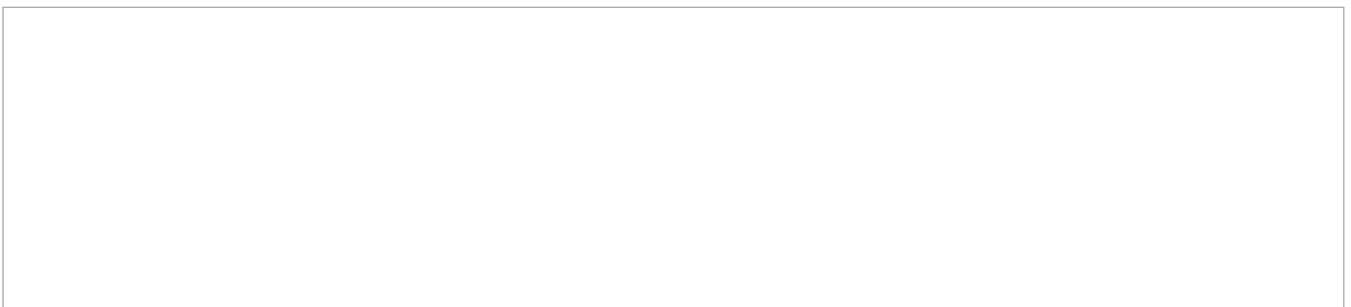
1. The learner points to the numeral for a group of three: 0, 3, 5.



2. An adult presents the numeral 5. The learner makes a group of that size.



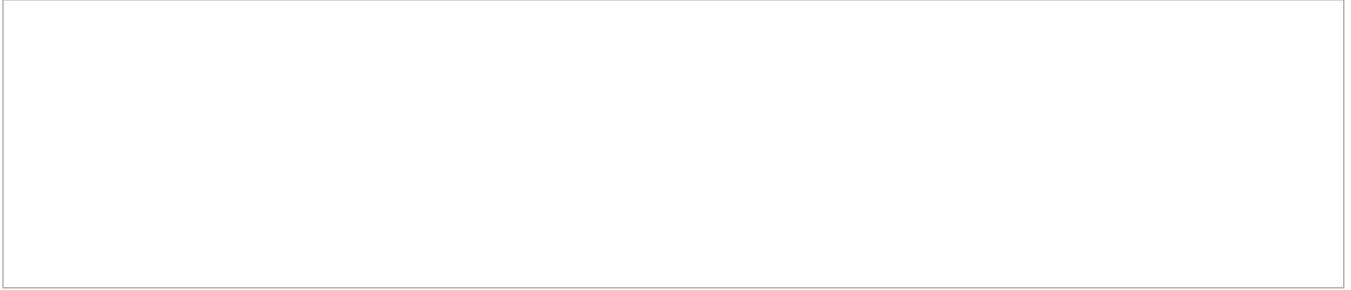
3. The learner chooses the numeral for an empty group: 0, 2, 4.



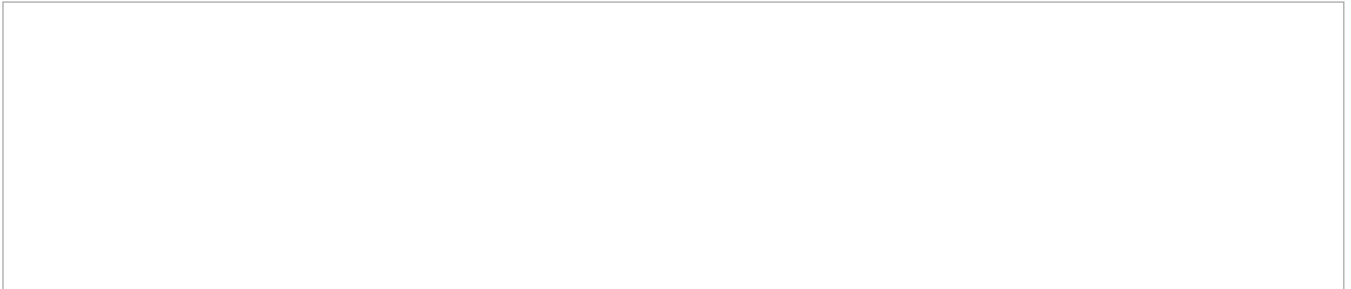
Response method / adult support: _____

Section check

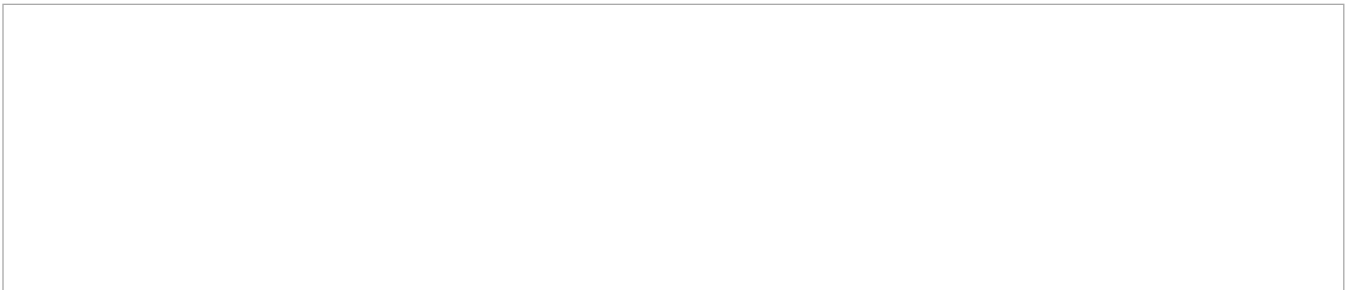
1. The learner counts five objects once each and states the total.



2. The learner rearranges those five objects and explains or shows whether the total changed.



3. The learner matches 0 to an empty group and 2 to a group of two.



After feedback

Return to two or three objects, move each counted object into a second area, and retry with a new arrangement. Delay additional numerals until small quantities are secure.

Sources and content notes

Instruction, practice tasks, and illustrative examples were authored for this series. Invented scenes and diagrams are not historical evidence or measured research data. Source references support the specific concepts below, not a claim of complete topic coverage.

MATH-K-01

Editorial learning sequence: count and match concrete groups before joining, separating, and recording parts. Placement follows demonstrated understanding, with oral and object-based responses. This introductory section does not cover all elementary mathematics.

NAS-COUNTING-2001 | Adding It Up (2001), Chapter 5: The Mathematical Knowledge Children Bring to School

Research background for counting, matching quantities, and early arithmetic. The authored examples and pictures are original. This chapter does not prescribe this thirteen-level sequence or establish its completeness.

<https://www.nationalacademies.org/read/9822/chapter/7>

Use and revision

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