

Rubric: Integers and Fractions Model or Report

Task

Students present a labelled model or report on integers and fractions.

Curriculum alignment

Students interpret fractions in relation to one whole ([Outcome](#)). Students apply equivalence to the interpretation of fractions ([Outcome](#)). Students interpret improper fractions ([Outcome](#)). Students investigate magnitude with positive and negative numbers ([Outcome](#)).

Rubric

Criterion	Beginning	Developing	Proficient	Exemplary
Representation of fractions	Shows fractions with minimal or unclear labels; parts are incorrectly identified.	Shows fractions with some labels; mostly correct parts but occasional errors in denominator or whole identification.	Shows fractions clearly labelled with correct numerators, denominators, and whole; denominators to 12 or higher.	Represents multiple forms of the same fraction (equivalent fractions, improper fractions, mixed numbers) with accurate labels and clear connection to one whole.
Understanding of integers and negative numbers	Identifies positive or negative numbers but with limited context; no clear use of zero or magnitude.	Identifies positive and negative numbers in some contexts; attempts to show magnitude or position on number line with minor errors.	Correctly represents positive and negative numbers with clear context; shows magnitude and position relative to zero on horizontal or vertical number line.	Explains positive and negative numbers in multiple contexts; demonstrates additive inverses or symmetry around zero with clear visual or written justification.
Mathematical accuracy	Calculations or comparisons contain multiple errors; fractions or integers are incorrectly named or positioned.	Calculations or comparisons mostly correct; minor errors in simplifying, comparing, or positioning fractions and integers.	All calculations and comparisons accurate; fractions correctly simplified or compared; integers correctly ordered and positioned.	Demonstrates mastery; includes operations (addition, subtraction) with no errors; shows understanding of fraction equivalence where applicable.
Clarity and organization	Model or report is difficult to follow; labels missing or unclear; minimal explanation of thinking.	Model or report is mostly clear with most labels present; explanation of thinking is brief or incomplete.	Model or report is well organized with all labels clear; explanation shows understanding of how fractions or integers relate to the whole or to each other.	Model or report is exceptionally clear and well organized; labels and explanations demonstrate deep understanding; visual or written presentation aids comprehension.

Scoring

Count the number of cells marked at each level. The overall result is the level at which the student has the most cells. If the student has an equal number of cells at two levels, the overall result is the lower level.

Note on tie-breaking: When a student has an equal number of cells at two levels, applying the lower level as the overall result is a defensible but strict scoring convention. Teachers should be aware that this approach may undervalue balanced strong performance across criteria. Consider whether students interpret fractions in relation to one whole, as this aligns with the curriculum expectation.

Core expectation: A student who scores Proficient or Exemplary on the mathematical accuracy criterion has met the core expectation, provided that both content areas (fractions and integers) are addressed in the model or report. If one content area is omitted, the mathematical accuracy score alone does not satisfy the core expectation; instead, evaluate overall performance across all four criteria.

Notes for the teacher

- Look for evidence that the student can identify the numerator and denominator and relate them to the whole. Correct naming of fractions (e.g., "three-fourths," not "three and four") is a marker of Proficient work.
- When assessing representation, check whether the student has used consistent unit fractions within a model and whether equivalent fractions are shown with the same point on the number line.
- For integers, accept both horizontal and vertical number lines. Verify that the student understands zero as a reference point and that positive and negative numbers are positioned correctly relative to it.
- If a student includes operations (addition, subtraction, or multiplication), apply the mathematical accuracy criterion strictly. Errors in computation or in finding common denominators should lower the score on that criterion.
- Ensure that the model or report addresses how fractions are characterized in different ways. If fraction characterization is missing, note this when determining whether the core expectation has been met.