

Fractions and Decimals Rubric: Grade 4

Task

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

Curriculum Alignment

- Students apply place value to decimal numbers ([Outcome](#)).
- Students add and subtract within 10 000, including decimal numbers to hundredths ([Outcome](#)).
- Students apply equivalence to the interpretation of fractions ([Outcome](#)).
- Students interpret percentages ([Understanding](#)).

Rubric

Criterion	Beginning	Developing	Proficient	Exemplary
Place Value Understanding	Identifies some place values in decimal numbers with frequent errors.	Identifies place values in decimal numbers but sometimes confuses tenths and hundredths.	Correctly identifies place values of digits in decimal numbers, including tenths and hundredths (Skills).	Identifies place values and explains the relationship between adjacent places in decimal numbers (Skills).
Model or Visual Representation	Model is incomplete or unclear; labels are missing or inaccurate.	Model shows fractions or decimals but labels are inconsistent or partially unclear.	Model clearly shows fractions and decimals with accurate, legible labels throughout (Skills).	Model demonstrates equivalence between fractions and decimals with clear, organized labels (Knowledge).
Comparison and Expression	Attempts to compare numbers but shows limited understanding of order or symbols.	Compares some fractions or decimals correctly but inconsistently uses <, >, or = symbols.	Compares and orders fractions and decimal numbers correctly, using <, >, or = symbols accurately (Skills).	Compares multiple fractions and decimals and explains reasoning using place value concepts.
Communication	Explanation is unclear or missing; few mathematical terms are used.	Explanation includes some mathematical terms but lacks clarity or completeness.	Explanation is clear and uses appropriate mathematical language to describe fractions and decimals (Skills).	Explanation is well-organized, uses precise mathematical language, and connects concepts throughout (Understanding).

Scoring

Add the number of criteria at each level. The overall result is the level at which the student meets three or more criteria. If the student meets exactly two criteria at Exemplary and two at Proficient, the overall result is Proficient.

Notes for the Teacher

- **Consistency in place value:** Watch for students who confuse the value of the tenths place with the hundredths place. Ask them to explain the relationship: "What is one-tenth of one?" ([Knowledge](#))

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- **Model clarity:** Labelled models must show both the whole and the parts clearly. A number line, area model, or base-ten blocks with written labels all work; the labels themselves must be legible and accurate.
- **Equivalence as a bridge:** Students who struggle to see the connection between fractions and decimals benefit from models that show both forms side by side (for example, $\frac{3}{10}$ and 0.3 on the same diagram).
- **Reasoning over recall:** Proficient work shows that students can explain *why* $0.5 = \frac{5}{10}$, not just that they are equal. Exemplary work connects this reasoning to place value patterns.