TEACHER GUIDE

Fixed-Value Symbol Lesson Prompts

A flexible 15-25 minute routine for reading, explaining, and comparing whole numbers

15-25 MINUTE ROUTINE

Choose one Number Atlas image or one card set. Keep the visual visible while students move from noticing to explaining. The goal is not speed; it is precise fixed-value symbol language.

1 Look silently

Show the visual without naming the number. Ask students to notice quantities, repeated symbols, and zero positions in standard notation.

2 Name the symbol values

Ask: What is each symbol worth? How does the legend help? Which symbol has the greatest fixed value?

3 Connect the forms

Record standard form, word form, and expanded form. Point to the fixed-value symbols that justify every contribution.

4 Change the pattern

Ask what changes if one symbol is added or removed, then ask why moving the same symbol does not change its value. Require a reason, not only an answer.

5 Check another way

Invite a partner to verify the number by grouping, adding expanded contributions, or reading from the greatest place.

Exit prompt

Draw or describe a different number that uses the same symbol magnitudes. Explain one way the two numbers are alike and one way they differ.

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Questions that reveal student reasoning

PROMPT BANK

Notice

- What repeats? What stays fixed when the arrangement changes?
- Which symbol value is absent, and how can you tell?

Explain

- How does repetition show how many times a symbol value is added?
- Where do you see each part of the expanded form?

Compare

- Which number is greater? Compare the greatest symbol values that differ.
- Why do two arrangements of the same symbols have the same total?

Compose

- Build a number with 4 hundreds, 0 tens, and 7 ones.
- What number is 3,000 + 200 + 5? Show every contribution.

Decompose

- Give two correct ways to break this number into addends.
- What is the value of the selected digit? How do you know?

Extend

- Predict the visual after adding 10, 100, or 1,000.
- Create an error that looks reasonable, then explain how to correct it.

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Listen for reasoning, then choose the next prompt

LISTEN FOR / RESPOND WITH

Student counts every symbol from one.

Ask the student to group identical symbols and multiply the quantity by that symbol's fixed value before adding the contributions.

Student names a digit but not its value.

Ask: Is that digit worth 5, 50, 500, or something else in standard notation? Then connect its contribution to the corresponding fixed-value symbols.

Student ignores an empty place.

Ask the student to write all occupied and empty places in order, then explain the role of zero in the standard form.

Student gives an answer without evidence.

Ask for two checks: connect each expanded contribution to the visual, then read the number from greatest place to ones.

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