

Explain Your Work



INTRO BUILD APPLY

Summary

Explain Your Work is a scaffolded writing activity for students to write explanations of solutions, justifications, proofs, error analyses, and more! The activity contains three levels of scaffolding: (1) sentence frames, (2) sentence stems, and (3) writing with supports. Students compare their writing against a model response and then submit their final product to the teacher for review.

Teachers have tools to review student writing products and to provide feedback online. All work is stored in each student's own digital portfolio as evidence of learning.



Use with a student device such as a Chromebook, laptop, tablet, or desktop.



Use this activity as independent practice.



Requires teacher modeling and moderation.



How to Use Explain Your Work

Three Levels of Scaffolding

1. Sentence Frames: Students first gap-fill a story by choosing words using audiovisual aids.
2. Sentence Stems: Next, students finish sentences by typing in a phrase that makes contextual sense.
3. Writing with Supports: Finally, students write their own explanation with the help of a word bank.

Matias borrowed \$10,000 at 12% simple interest. How much will he owe the bank in one year? Explain why \$1,299 is the wrong answer.

$\$10,000 \times .12 + \$99 = \$1,299$

Words You Can Use

- + numerator
- + denominator
- + principal
- + interest
- + simple interest
- + fee
- + unit rate
- + unit price
- + part-to-part
- + part-to-whole

Matias borrows \$10,000 to buy the truck. The \$10,000 is .

Matias' bank charges per month.

After one year, Matias will owe interest of 12% of the \$10,000 principal. The bank also charges a \$99 .

Matias thinks he will owe $\$1,200 + \$99 = \$1,299$. What is he missing?

Matias forgot .

HINT: What is missing from Matias' equation: the principal, interest, or fee?

He will owe the bank a total of $\$10,000 + \$1,299 = \$11,299$.

In Level 2 (shown above), students complete the sentence stems with the help of a word bank. They can also press the information button to get a hint. The hints help students to think about the context.

Your Explanation	Sample Explanation	Compare the Explanations
Matias borrows \$10,000 to buy the truck. The \$10,000 is the principal that he borrows .	Matias borrows \$10,000 to buy the truck. The \$10,000 is the principal amount .	<input type="text" value="Write your comparison here."/>
Matias' bank charges 1% interest rate per month.	Matias' bank charges 12% interest per year, which is 1% per month .	<input type="text" value="1%/mo and 12%/yr same same"/>
After one year, Matias will owe interest of 12% of the \$10,000 principal. The bank also charges a \$99 rate .	After one year, Matias will owe interest of 12% of the \$10,000 principal. The bank also charges a \$99 application fee .	<input type="text" value="Write your comparison here."/>
Matias thinks he will owe $\$1,200 + \$99 = \$1,299$. What is he missing?	Matias thinks he will owe $\$1,200 + \$99 = \$1,299$. What is he missing?	<input type="text" value="Write your comparison here."/>
Matias forgot the \$10,000 principal .	Matias forgot to include the principal of \$10,000 .	<input type="text" value="Write your comparison here."/>
He will owe the bank a total of $\$10,000 + \$1,299 = \$11,299$.	He will owe the bank a total of $\$10,000 + \$1,299 = \$11,299$.	

After completing the sentence frames, students self-check by comparing their explanation to a model. Now they are ready for Level 3, where they write an explanation from scratch (with supports).

Key Learning Strategies

Error Analysis	Student analysis of incorrect worked examples is especially beneficial for developing a conceptual understanding of math and science processes.
Explaining Thinking	When students explain their thought process, they find strategies to solidify understanding.
Sentence Stems	Sentence frames and stems provide scaffolds for students to improve academic writing.