

# Amplify Fractions

Amplify Fractions is an easy-to-use, effective and engaging way for students to understand the essential yet difficult concept of fractions. The digital program uses a **new approach** to teaching fractions that blends **interactive storytelling with adaptive learning**. Along with unlimited practice and personalized feedback via a patented **digital tutor**, students master fractions without realizing they're learning – all with real-world context, purpose AND humor!

Here are 5 important things to know about Amplify Fractions:

## 1. It was designed using research-based pedagogical strategies.

Read the full blog at: [www.amplify.com/fractions/the-pedagogy-of-amplify-fractions/](http://www.amplify.com/fractions/the-pedagogy-of-amplify-fractions/).

Strategy	Research shows...	Research study
<b>Feedback that is personalized</b> to each student	1:1 tutoring and mastery-based instruction can improve student outcomes more than anything.	Bloom BS. "The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring." Educational Research, 13: 4-16 (1984)
<b>Story-driven instruction</b> designed to keep students engaged	The inclusion of narrative improves learning outcomes, offering students context for concepts they encounter.	McQuiggan SW, Rowe JP, Lee S, and Lester JC. "Story-Based Learning: The Impact of Narrative on Learning Experiences and Outcomes." International Conference on Intelligent Tutoring Systems: 530-539 (2008).
<b>Scope and sequence completely covering fractions</b> , tied to learning progressions of conceptual understanding and standards	More than anything else, a mastery of fractions uniquely predicts student achievement in high school math	Siegler RS, Duncan GJ, Davis-Kean PE, Duckworth K Claessens A, Engel M, Susperreguy MI, and Chen M. "Early Predictors of High School Mathematics Achievement." Psychological Science, 23:691-697 (2012).

## 2. It works!

Students in our pilot schools saw significant improvement on pre- vs. post-assessments. A 4th-grade class at Double Churches Elementary School in Georgia saw score increases among all but one student, with an average increase of 23 percentage points! Details are in this [success story](http://amplify.com/fractions/program/) at [amplify.com/fractions/program/](http://amplify.com/fractions/program/).

## 3. It is aligned with state standards.

The lesson and practice are organized according to Amplify's learning progressions for fractions, which correspond to state standards. The learning progressions provide a rich framework for dynamic student learning, and describe not only learning targets, but also the multiple pathways students take to reach those targets. Complete standards alignment by lesson can be found [amplify.com/fractions/program/#standards](http://amplify.com/fractions/program/#standards).

## 4. It uniquely engages students in learning and practice.

Teachers repeatedly comment that Amplify Fractions keeps students "super-engaged" while taking their fractions knowledge to the next level. Here is just one 4th grade teacher's view: "With Amplify Fractions, I found a program that actually excites my students to want to learn and practice fractions. Students remembered the characters and stories in the program, which is a great thing to fall back on to remember the difficult concepts."

## 5. It's flexible and can complement any core curriculum.

From computer lab time to afterschool programs, Amplify Fractions can be used in many ways to reinforce and enrich students understanding of fractions. A list of how to use can be found at: [amplify.com/fractions/program/#students](http://amplify.com/fractions/program/#students)