In each unit, students use evidence to construct convincing arguments

Grades K–5

The claim-evidence-reasoning (CER) model (McNeill and Krajcik, 2011) in Amplify Science [1]

In Amplify Science, students are introduced to a relevant, real-world problem and then engage in investigations using hands-on materials, reading selections, rich media, and more to draft, strengthen, and defend their claims about what is going on and how to solve the problem.

1 McNeill, K.L., and Krajcik, J. 2011. Supporting grade 5–8 students in constructing explanations in science: The claim, evidence and reasoning framework for talk and writing. Boston, MA: Pearson Education.

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Amplify Science

In Amplify Science, students do what scientists and engineers do every day.

Based in part on the Lawrence Hall of Science's NSF-funded research into how to effectively bring argumentation into the classroom, Amplify Science makes developing claims, collecting evidence, and articulating reasoning a central part of instruction.[2]

Developing claims
Students start generating claims about real-world phenomena early on in each unit. As they gather more and more evidence, they revisit the claims before defending the strongest one or few towards the end of the unit.

Collecting evidence
Students gather evidence from multiple sources throughout the unit. They develop the ability to evaluate evidence based on the claims they are considering and learn to engage in productive discourse about complex data sets and variables.

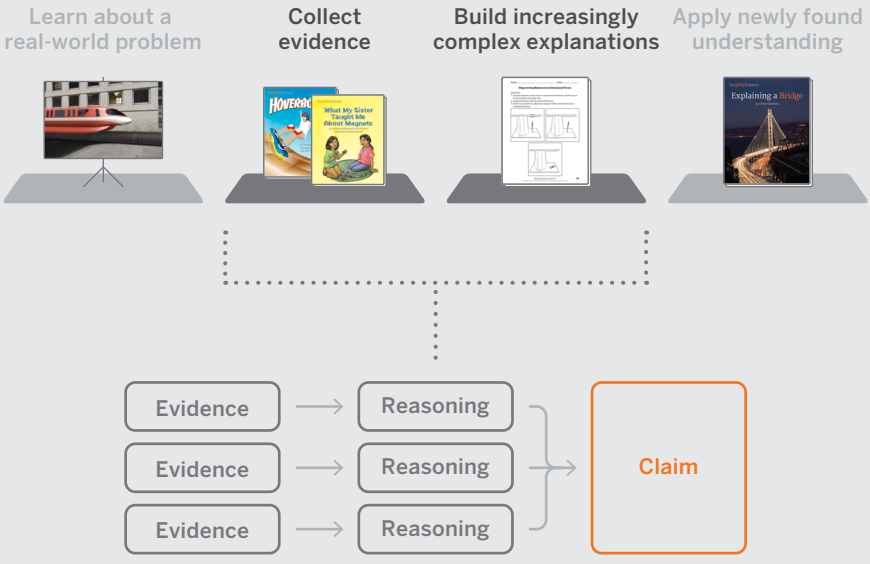
Articulating reasoning
The ability to articulate why a piece of evidence supports a specific claim is one that takes time to develop and requires a fair amount of practice—in Amplify Science students are offered multiple low-stakes opportunities to make these connections before demonstrating understanding at the end of the unit.

At grades K–5, select units are focused on argumentation and emphasize specific aspects of the practice. The argumentation units provide students with multiple opportunities to:

- Consider the quality of evidence;
- Evaluate claims in relation to evidence;
- Exhibit evidence in support of a claim;
- Participate in oral argumentation with their peers; and
- Construct written arguments to convince a specific audience.

Learn more about the grades K–5 unit types at amplify.com/science.

In each Amplify Science unit, students:



2 The Argumentation Toolkit was developed by UC Berkeley's Lawrence Hall of Science and supported by National Science Foundation Grant DRL-1119584. Any opinion, findings, and conclusions or recommendations expressed in those materials are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. Learn more at argumentationtoolkit.org.

Amplify.