

Cupcakes, Hurricanes, and Staircases: Investigating Ratios and Proportional Reasoning

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Making Mathematics Accessible

**Essential Teacher Actions
from Beyond Good
Teaching**

Mathematics-Focused
Language-Focused
Collaboration-Focused
Relationship-Focused

Mathematics- Focused

Uses challenging problems to provide access

Displays and interacts with mathematics vocabulary

Highlights the difference in mathematical vs. common language meaning

Facilitates tool use

Makes visual references to mathematical models in the environment

Language-Focused

- Uses rich contexts and sophisticated language
- Considers cognitive and linguistic demands
- Scaffolds language demands
- Sequences tasks

Collaboration- Focused

Facilitates and guides
discourse

Models making sense of
instructions

Groups purposefully

Provides wait time

Provides opportunities to
read and write (with
feedback)

Recognizes the challenges
of cursive writing

Relationship- Focused

Listens to, cares about,
guides, and mentors
Enhances student-teacher
interactions
Understands and models
acceptance

Guiding Principles for Teaching Mathematics to ELLs

- Provide challenging mathematical tasks
- Create a linguistically sensitive social environment
- Support ELLs while they learn mathematics
- Encourage and facilitate the use of mathematics tools and resources
- View cultural and linguistic differences as intellectual *resources*

Information comes from: *Beyond Good Teaching*

The Bake Sale: Cupcake Ratios

6.RP.1, 6.RP.3

Grade 6

Hungry for the
Common Core

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Snail Race

6.RP.3

Grade 6

Racing to the
Common Core

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Building a Comfortable Staircase

7.RP.1, 7.RP.2, 7.EE.4

Grade 7

HGTV meets the
Common Core

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Mathematically Modeling a Hurricane

8.SP.1, 8.SP.2, 8.SP.3, 8.F.4

Grade 8.

The Weather of the
Common Core

Guiding Principles for Teaching Mathematics to ELLs

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Information comes from: *Beyond Good Teaching*

What are the big ideas you are
taking away from our discussion
of Ratios & Proportional
Reasoning?

What are the big ideas you are
taking away regarding teaching
ELLs with the Common Core?

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