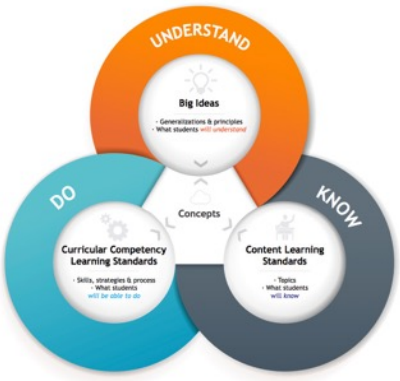
Big Idea
Students will understand that: • Thinking about how quantities are related using multiplication is essential for solving a wide variety of problems • Ratios, rates, and percent make comparisons easy; one term is made the same



Big Idea(s)

Proportional reasoning helps us make sense of multiplicative relationships.

Competencies

Use multiple strategies to solve problems

Communicate in a variety of ways to explain and justify ideas

Content

ratios

rates

proportions

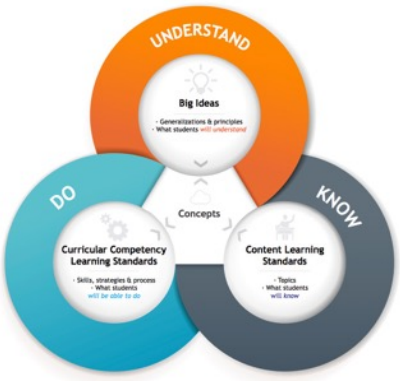
unit price

percent

coupons

Curricular Competencies	Content
Students will be able to: • choose correct and efficient strategies • monitor progress to completion of task and make necessary adjustments along the way • propose and consider or critique alternative strategies • share mathematical *ideas*–not just *steps*!–needed to solve problems (verbal & written) • present work that is clear and easy to follow • effectively use tables, equations, etc. to support conclusions or arguments	*Students will know that:* • two equivalent ratios represent the same relationship • ratio tables list equivalent ratios in an organized way • a rate represents an infinite number of equivalent ratios • a unit rate (or price) is an equivalent rate where one term is "1" • a proportion is an expression of the equivalence of two ratios • proportion problems can be solved by looking for scale factors within or between ratios • a percent is a fanatical comparison to 100

Big Idea
Students will understand that:



Curricular Competencies	Content
Students will be able to:	*Students will know that:*