

Instructional Unit Title: R U Proportional?

The teacher may provide a list of items that need to be purchased and advertisements from a variety of stores so that students can determine the cheapest purchase price per unit for each item by calculating the unit costs.

The teacher may provide two vehicles going to the same place but with different miles per gallon and/or price per gallon of fuel (ex: diesel versus unleaded) so that students can describe how unit rates can be used to efficiently calculate equivalent rates.

The teacher may provide information about the yearly, monthly, weekly, or hourly pay for a variety of careers/jobs (see teacher resource for examples) so that students can compare salaries by finding a common unit of comparison.

The teacher may provide a list with different monetary scenarios (e.g., whole sale prices and sale prices) so that students can calculate percent increases and percent decreases.

The teacher may provide a list with monetary scenarios (e.g., interest, income, sales tax, tips) so that students can determine taxes, tips, simple interest, markups, and markdowns.

The teacher may provide a variety of real life scenarios involving the relationship of two quantities so that students can determine if the two quantities vary in direct proportion to each other.

The teacher may provide students with a variety of starting amounts and interest rates so that students can compare different simple interest rates over various periods of time.

Teacher may provide a scenario of a contest for planning a new garden, mini-golf course, or playground for their town so that students can create a scale drawing and determine ratios of lengths, areas, and other quantities.

PERFORMANCE ASSESSMENT: You are an entrepreneur and the school district is asking for proposals to run their concession stand at school events. Your seventh grade class would like to raise money each year for a class trip, so you decide to submit a proposal.

The proposal will need to include a detailed business plan that includes:

- scale drawing for the design of the concession stand
- wholesale unit prices for each item you intend to sell
- additional expenses (e.g., big box membership, mileage to big box store)
- proposed markup percentage
- rate of pay for employees
- projected profit per school event

This unit was authored by a team of Colorado educators. The unit is intended to support teachers, schools, and districts as they make their own local decisions around the best instructional plans and practices for all students. To see the entire instructional unit sample with possible learning experiences, resources, differentiation, and assessments visit <http://www.cde.state.co.us/standardsandinstruction/instructionalunitsamples>.