STEM: MATHEMATICS and more

Activities reinforce Colorado Academic Standards using e-editions of the Denver Post.

ACTIVITY ONE (SHOW YOUR WORK; SELECTIONS MAY HAVE MORE THAN ONE CORRECT ANSWER)

Article: Same quality of care, bigger bill, *Sun., June 2, Main, page 6A*

- The United States spends about 18 percent of its gross domestic product on health care, nearly twice as much as most other developed countries. What is the reason for the higher costs in the U.S.?
  - ○ better equipment
  - ○ better service in the U.S.
  - ○ U.S. does not generally regulate or intervene in medical pricing
  - ○ the value of the dollar affects the pricing of medical services
- Using the high prices recorded for each city, what is the difference in cost for a colonoscopy in New York compared to the same procedure in Houston?
  - ○ $8,577 ○ $4,726 ○ $3,851 ○ $3,540
- Using the high prices recorded for each city, what city offers patients the best price for the procedure?
  - ○ Miami ○ Denver ○ Seattle ○ Baltimore
- There are 20 cities shown on the cost comparison map. Convert the information to a double bar chart. Put the cost on the vertical axis. Put the cities on the horizontal axis. Plot both high cost and low cost for each city.

ACTIVITY TWO

Articles: Denver weather calendar for June, *Sat., June 1, Denver & The West, page 8A*

- Use the table to determine how many hours of daylight we will have on June 19.
  - ○ five hours and 32 minutes
  - ○ fourteen hours and fifty-nine minutes
  - ○ eight hours and thirty-one minutes
  - ○ sixteen hours

The average high temperature for June is 82.5 degrees. The average low temperature is 52.4 degrees. Click to the five day forecast on *page 24A*. Write the symbol on the blank line that will make each statement true. The symbol choice is <, >, =.

- The high temperature forecast for Monday is ____ June's average.
- The high temperature forecast for Tuesday is ____ June's average.
- The high temperature forecast for Wednesday is ____ June's average.
- The low temperature forecast for Monday is ____ June's average.
- The low temperature forecast for Tuesday is ____ June's average.
- The low temperature forecast for Wednesday is ____ June's average.

ANSWERS

June 2, 2013

Utilizing your rolling 30-day access to the Denver Post e-edition

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ACTIVITY ONE

U.S. does not generally regulate or intervene in medical pricing

$3,851

Baltimore

ACTIVITY TWO

fourteen hours and fifty-nine minutes

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Colorado Academic Standards

Mathematics 1. Number Sense, Properties, and Operations

Understand the structure and properties of our number system. At their most basic level numbers are abstract symbols that represent real-world quantities

1. The decimal number system to the hundredths place describes place value patterns and relationships that are repeated in large and small numbers and forms the foundation for efficient algorithms.

Understand that equivalence is a foundation of mathematics represented in numbers, shapes, measures, expressions, and equations

2. Different models and representations can be used to compare fractional parts.

Are fluent with basic numerical, symbolic facts and algorithms, and are able to select and use appropriate (mental math, paper and pencil, and technology) methods based on an understanding of their efficiency, precision, and transparency

3. Formulate, represent, and use algorithms to compute with flexibility, accuracy, and efficiency

Mathematics 2. Patterns, Functions, and Algebraic Structures

Make sound predictions and generalizations based on patterns and relationships that arise from numbers, shapes, symbols, and data

Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics

1. Number patterns and relationships can be represented by symbols

Mathematics 3. Data Analysis, Statistics, and Probability

Solve problems and make decisions that depend on understanding, explaining, and quantifying the variability in data

1. Visual displays are used to represent data

Mathematics 4. Shape, Dimension, and Geometric Relationships

Understand quantity through estimation, precision, order of magnitude, and comparison. The reasonableness of answers relies on the ability to judge appropriateness, compare, estimate, and analyze error

1. Appropriate measurement tools, units, and systems are used to measure different attributes of objects and time

Make claims about relationships among numbers, shapes, symbols, and data and defend those claims by relying on the properties that are the structure of mathematics

2. Geometric figures in the plane and in space are described and analyzed by their attributes