

Puppy Purchasing Power!

Summary

Students will use their understanding of decimal number multiplication and ratio/rate reasoning to solve problems related to owning a dog.

Main Core Tie

Mathematics Grade 6

[Strand: THE NUMBER SYSTEM \(6.NS\) Standard 6.NS.3](#)

Additional Core Ties

Mathematics Grade 6

[Strand: RATIOS AND PROPORTIONAL RELATIONSHIPS \(6.RP\) Standard 6.RP.3](#)

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Life Skills

Social & Civic Responsibility

Materials

Copies of task for students

Video clips (teacher computer/projector)

Document Camera (if available)

Graph paper

Pencil

Calculator Manipulative (ie. pattern blocks) One cup of dog food for each group Set of measuring cups for each group

Background for Teachers

[Curriculum Guide for Grade 6 The Number System Standard 3](#)

Student Prior Knowledge

Students need a working understanding of decimal numbers including value and computation as well as an understanding of standard volume measurement.

Intended Learning Outcomes

Students will use their knowledge of multiplying multi-digit decimals to solve real world problems related to dog ownership.

Strategies for Diverse Learners

Struggling students may benefit from the following guided questions:

What are you being asked to calculate?

What pertinent information do you need to calculate the solution?

What strategy will help you solve this problem?

Would it help to use manipulatives or a visual representation?

Fast finishers could determine how choosing a different size of dog might affect their data.

Extensions

Calculate the most economical size of dog food bag. (See Puppy Chow Pricing Info. Chart.) Using the info. from the most economical bag, find the cost per cup. (Note: one cup of puppy chow = .22 lbs.)

Recalculate the cost to feed your puppy for one day and for 30 days for a one-month old, three-month old, five-month old, seven-month old, one-year old, and two-year old puppy.

Bibliography

Adapted from: Smith, Margaret Schwan, Victoria Bill, and Elizabeth K. Hughes. "Thinking Through a Lesson Protocol: Successfully Implementing High-Level Tasks." *Mathematics Teaching in the Middle School* 14 (October 2008): 132-138.

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