

HOW DOES YOUR PUPPY GROW?

Developed by:

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Discipline / Subject:

Math

Topic:

Estimation and Measurement

Grade Level:

4th grade – can be adapted for other grades

Resources / References / Materials Teacher Needs:

1. Matt Failor's puppy video from the Iditarod Insider – you must have a subscription to watch the video: <http://iditarod.com/video/>
2. Have a document camera to watch the videos of Matt Failor's puppies on the post and share with students.
3. Copy of the birth certificate for students
4. Scale for measuring the puppies in ounces
5. Men's socks in white, gray, and black
6. Black pom pom noses, google eyes, small colored rubber bands, rice, tubs, funnels, felt in assorted colors
7. Hot glue gun

Lesson Summary:

Students will learn about newborn husky puppies. They will make rice-filled sock puppies and estimate measuring them to 16 ounces.

Standards Addressed:

Common Core State Standards – CCSS

<http://www.corestandards.org/Math/Content/4/MD/>

CCSS.MATH.CONTENT.4.MD.A.1

Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec. Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.

Texas State Standards – TEKS

<http://ritter.tea.state.tx.us/rules/tac/chapter111/ch111a.html>

(b) Knowledge and skills.

(1) Mathematical process standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:

(A) Apply mathematics to problems arising in everyday life, society, and the workplace

(A) Identify relative sizes of measurement units within the customary and metric systems

Alaska State Standards – Language Arts

https://education.alaska.gov/akstandards/math/akstandards_math_081312.pdf

Measurement and Data 4.MD

Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit, and involving time. 4.MD.1. Know relative sizes of measurement units within one system of units including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec.

Within a single system of measurement, express measurements in a larger unit in terms of a smaller unit.

Learning Objectives:

1. Students will watch musher Matt Failor's videos about husky puppies from his kennel.
2. They will learn about newborn and 3 month old huskies, and how mushers train them early to prepare for the future.
3. Students will practice estimation to find 16 ounces/1pound with rice and a scale

Assessment:

1. Did the student measure correctly after estimating?
2. The sock must be filled with exactly 16 ounces to be correct.

Procedural Activities

1. The teacher will share the puppy video from Matt Failor and discuss his information about newborns.
2. Students will be given the choice of materials to make their own husky sock puppy.
3. They will choose a men's sock for the body of the puppy first.
4. Students will be shown one ounce on a scale, and they will be told they need to estimate a newborn's weight, which can be up to 16 ounces/1 pound.
5. Students will work in table groups and use funnels to fill up the sock with rice. They will use estimation to try and fill it up to 16 ounces.
6. Students will be allowed to walk back and forth to the scale to weigh their socks. If it is too low, they must go back and fill it up more. If it is too high, they must go back and remove some rice.
7. When it is exactly 1 pound, the tail will be secured with a rubber band.
8. Students will add 1 rubber band to make a head, and then 4 more to make paws.
9. Students can add one more small rubber band to make a muzzle.
10. Google eyes will be hot glued on by the teacher, and a black pom pom will be glued on for the nose, felt triangles will be added for ears.
11. Students can use markers to add a mouth, and then pink felt can be cut and added as a tongue and glued on.
12. The tail should be cut off for the proper length.
13. Students will then fill in their birth certificates to take home.

Materials Students Need:

1. Copy of the birth certificate
2. Scale for measuring the puppies in ounces
3. Men's socks in white, gray, and black
4. Black pom pom noses, google eyes, small, colored rubber bands, rice, tubs, funnels, felt in assorted colors

Technology Utilized to Enhance Learning:

1. Document camera to show students the puppy videos from Matt Failor in the post
8. To show Matt Failor's video from Iditarod, a subscription is required from the Insider: <http://iditarod.com/shop/insider-subscription-school-ultimate/>

Other Information:

Students can decorate and embellish their puppies with personal touches using felt and markers or pipe cleaners for collars.

I used small, colored rubber bands to match the color of the socks.

Modifications for Special Learners/ Enrichment Opportunities:**Modified:**

Students with special needs may need to hold 1 ounce in their hands first to better understand what 16 might be. The teacher can hold the funnel and help them weigh a little at a time, as they get closer to 16 ounces.

Enrichment:

Students can keep their puppies and write a dog diary or puppy journal in first person as their puppy "grows" using facts about husky puppies from Matt Failor and Iditarod.