

“Mathing” Down the Trail... Iditarod Math

Grades 2-6



Created by:
Jen Reiter

2014 Iditarod Teacher on the Trail

revised by Jane Holme
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Filling the Dog Yard!

Developed by: Jennifer Reiter, 2014 Iditarod Teacher on the Trail™ **Revised 08/2023**

Discipline / Subject: Math, Getting to Know You

Topic: Glyphs, Data Sharing

Grade Level: Second-Fifth; K-1 and 6-12 with modifications

Resources / References / Materials Teacher Needs:

Teacher created model of completed glyph
Legend to display on chart or Smartboard

Lesson Summary:

This lesson should be presented in the first few days of school. The students will create a glyph (a pictorial representation of data) as a way to introduce themselves to their teacher and other students and set the stage for the classroom Iditarod/mushing theme.

Standards Addressed: (Local, State, or National)

NCTM Data Analysis and Probability Standard:

- *Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them*
- *Select and use appropriate statistical methods to analyze data*

Learning Objectives:

- TLW create a glyph displaying data about themselves
- TLW analyze others' glyphs to identify similarities and differences
- TLW present their glyphs as a way to introduce themselves to the class and teacher

Assessment:

1. The glyph will serve as a way to assess the students' ability to collect, organize and display data.
2. Since this lesson occurs so early in the school year, it could lay a baseline or pre-assess students' abilities to:
 - to read and perform a task
 - present information to classmates
 - identify adjectives
3. It could also serve as an Interest Inventory.

Procedural Activities

Day One

Introduction:

Tell the students that you are going to share some information about yourself with them. Display your completed glyph. Ask the students what information they have learned about you. You will probably get some confused looks in response!

Procedure:

1. Tell the students that your dog face is actually a glyph.
2. Define a glyph as a way to display data in a picture form. Many professions also use glyphs as a quick way to record information. For example, dentists can record data on a picture of teeth or a chiropractor might record data on a picture of a skeleton.
3. Since our classroom is “going to the dogs” this year, we are going to record our data as a picture of a dog!
4. Display the chart with the questions and responses for the students and again ask the students what they can learn about you from your glyph. The answers should be much more accurate this time!
5. The students will then use the patterns to create their own glyphs. They read the question, choose the correct response, and then make their glyph by following the directions. I have the students trace the pattern pieces onto construction paper, cut them out and assemble them into the dog faces. You could also have them color the pieces and then cut out and assemble.

Summary:

Have the students compare glyphs with the other students at their tables. Have table groups share similarities and differences in interests that they observed.

Day Two

Introduction:

Return the students’ glyphs to them. Ask them to swap glyphs with the person sitting across from them. Have students identify one piece of data they can learn about their friend by analyzing their glyph. I also ask them to find things that are similar and dissimilar among their table. They seem to always want to talk about the physical glyphs, “We all have brown eyes.” I use this time to remind them that a glyph is a representation of data and so they need to talk in terms of the data, “We all enjoy reading fantasy books.”

Procedure:

1. Tell the students that many of the mushers we will be meeting and talking about this year have large kennels of dogs.
2. In naming the dogs, the mushers sometimes name the litters in groups. For example, Brent Sass has a Game of Thrones litter (Yara, Brienne, Bronn, etc.), Matt Failor has a "luxury car "litter (Benz, Cadillac, DeLorean), and Jeff Deeter has a "mistakes" litter (Whoopsie, Risk, and Lucky). Why would this be a good idea? It helps them remember which puppies belong to which litter.
3. Today we are going to name the puppies they created yesterday. Have them brainstorm a list of topics they could use as a theme for the litter’s names. Use 2023 Teacher on the Trail Juli’s lesson: ["It's All in the Name"](#) as a preparatory lesson for this.
4. We brainstorm a list of categories and then vote for our favorite one. In the past few years we have had the Breakfast Cereal Litter, The Weather Words Litter, and the Soda Litter!
5. Each student will choose a name related to the theme for his or her dog and create a dog tag for the glyph with the name on it. I have been using the metal key tags like this: <http://www.officedepot.com/a/products/681277/Office-Depot-Brand-Round-Key-Tags/>
6. Each student will then complete the “Introducing.....” sheet about their puppy.

Summary:

Over the next few days, as time allows, the students will introduce themselves to the class using their puppy glyph and worksheet as a guide. I then display the completed glyphs on a bulletin board with a sled that says “Jump On The Sled and Head Off On a Great Adventure!” When the bulletin board is taken down, I bind the glyphs and introduction sheets in a book for the classroom library.