

## Dare to Compare '03 vs.'04

**Developed by:** Jeff Peterson, 2004 Iditarod Teacher on the Trail™

**Discipline / Subject:** Math

**Topic:** Comparing Iditarod Trails ('03vs.'04)

**Grade Level:** 3-8

**Resources / References / Materials Teacher Needs:**

- Trail information for '03 and '04
- Graph paper
- "Dare to Compare '03vs.'04" worksheet

**Lesson Summary:**

This lesson involves a comparison in trails for the 2003 and 2004 Iditarods. The 2003 Iditarod was run on a trail never used in the 31-year history of the race. The trail provided new challenges for everyone involved. This lesson should begin with a discussion of the '03 race route and the reasons for the change (could also take time to discuss Serum run of 1925). Students will work in pairs to complete the graph comparison of the race routes (see '03 & '04 trail info. Table). Students will then complete the worksheet based on their graph.

**Standard's Addressed: (Local, State, or National)**

1. Measurement standard (Minnesota Graduation Standard)

**Learning objectives:**

1. Students will create bar graph to compare data.
2. Students will interpret graph data to answer relevant questions.
3. Students will understand and apply graphing terms.

**Assessment:**

- "Dare to Compare '03 vs.'04" worksheet

**Procedural Activities**

1. This lesson should be used after students are familiar with the '04 Iditarod race route. Have students look at the 2004 trail information box (checkpoint distances).
2. Teacher and students discuss 2003 race route and reasons for the change in trail (if time allows look at 1925 Serum Run).
3. Students should look at 2003 trail information box (checkpoint distances).
4. Teacher should review graphing terms (horizontal axis, vertical axis, title, label) and how to construct bar graph.
5. Students select two different colors to represent '03 & '04 (ex. red='03 & blue='04). Students label horizontal axis with "leg one" and leave two bars available. This axis should be labeled all the way to "leg twenty-four." Remember to leave two bars for each checkpoint. Teacher helps students set up horizontal, vertical axis, title, and labels.
6. Students will begin graphing from the restart (Wasilla in '04 & Fairbanks in '03). Students will graph "Distance Between Checkpoints" from the '03 and '04 information box. Students should graph the distance from the first two checkpoints under "Checkpoint One" (ex. Checkpoint 1 '03= 53 miles vs. checkpoint 1 '04= 14 miles) There are only 21 checkpoints in '03, so checkpoints 22, 23, and 24 will have only one bar.
7. Students will use their graph to answer questions from "Dare to Compare '03 vs.'04"

**Technology Utilized to Enhance Learning:**

- Could have students get trail information from Internet.
- Data analysis program

**Other Information**

- Good opportunity to study 1925 Serum Route and situation.

**Modifications for special learners/ Enrichment Opportunities**

- Compare Southern route to Northern route and Fairbanks route.

## Dare to compare '03 vs.'04

Name: \_\_\_\_\_

**Directions:** Use the information from your bar graph to help you answer the questions below.

1. What is the difference, in miles, between checkpoints one and two of the 2003 route and 2004 route?
2. What is the longest "leg" from the 2003 race route?
3. What is the longest "leg" from the 2004 race route?
4. What is the total distance of the 2003 race route (Fairbanks to Nome)?
5. What is the total distance of the 2004 race route (Wasilla to Nome)?
6. What is the difference, in miles, between the two race routes?
7. What is the shortest "leg" from the 2004 race route?

### Bonus

8. Compare the winning time in 2002 to the winning time in 2003. Why do you think there is such a difference in time? How do these two years compare to the winning time in 2004?

## Mileage Charts

2003 ; Only time Race ever started in Fairbanks

2004 Regular Northern Trail

Checkpoints	Distance Between Checkpoints
Fairbanks to Nenana	53 miles
Nenana to Manley	100 miles
Manley to Tanana	60 miles
Tanana to Ruby	115 miles
Ruby to Galena	52 miles
Galena to Nulato	52 miles
Nulato to Kaltag - 1	42 miles
Kaltag to Eagle Island - 1	70 miles
Eagle Island to Grayling - 1	60 miles
Grayling to Anvik	18 miles
Anvik to Grayling - 2	18 miles
Grayling to Eagle Island - 2	60 miles
Eagle Island to Kaltag - 2	70 Miles
Kaltag to Unalakleet	90 miles
Unalakleet to Shaktoolik	42 miles
Shaktoolik to Koyuk	48 miles
Koyuk to Elim	48 miles
Elim to Golovin (Not an official Checkpoint)	28 miles
Golovin to White Mountain	18 miles
White Mountain to Safety	55 miles
Safety to Nome	22 miles

Checkpoints	Distance Between Checkpoints
Wasilla to Knik	14 miles
Knik to Yentna	52 miles
Yentna Station to Skwentna	34 miles
Skwentna to Finger Lake	45 miles
Finger Lake to Rainy Pass	30 miles
Rainy Pass to Rohn	48 miles
Rohn to Nikolai	80 miles
Nikolai to McGrath	48 miles
McGrath to Takotna	18 miles
Takotna to Ophir	25 miles
Ophir to Cripple	60 miles
Cripple to Ruby	112 miles
Ruby to Galena	52 miles
Galena to Nulato	52 miles
Nulato to Kaltag	42 miles
Kaltag to Unalakleet	90 miles
Unalakleet to Shaktoolik	42 miles
Shaktoolik to Koyuk	48 miles
Koyuk to Elim	48 miles
Elim to Golovin	28 miles
Golovin to White Mountain	18 miles
White Mountain to Safety	55 miles
Safety to Nome	22 miles