

LESSON BASED ON . . .

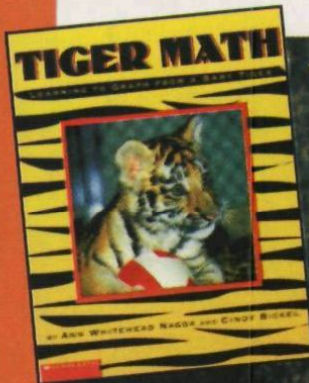


T.J. as a cub

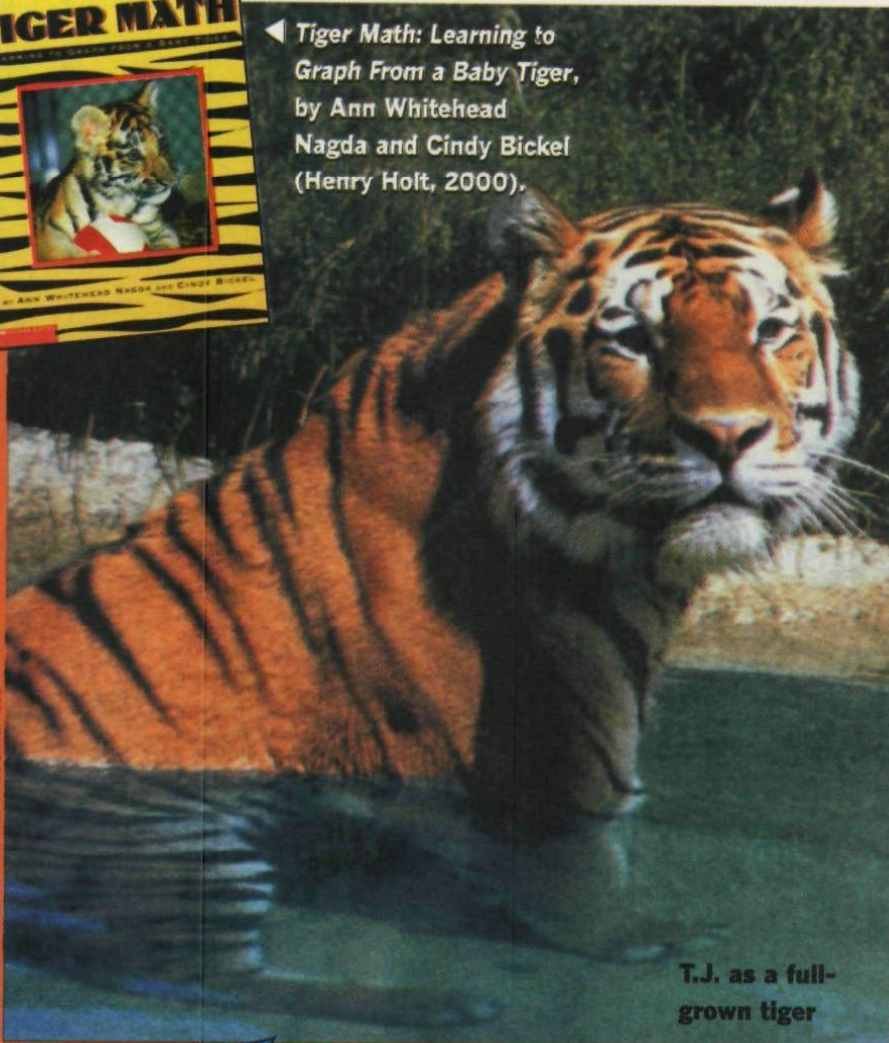


GRRREAT GRAPH!

This book uses graphs to show how a weak tiger cub grew into a big healthy cat



◀ *Tiger Math: Learning to Graph From a Baby Tiger*, by Ann Whitehead Nagda and Cindy Bickel (Henry Holt, 2000).



T.J. as a full-grown tiger

C

heck out the book *Tiger Math: Learning to Graph From a Baby Tiger*. The book is about two of our favorite real-world subjects: tigers and graphs!

Here's the story: When T.J. the tiger was born in the Denver Zoo, he weighed as much as his dad, Matthew, did at birth. But in the next couple of months, T.J. didn't gain weight as fast as he should have. Veterinarians (animal doctors) at the zoo were afraid T.J. wasn't healthy. While the zoo helped T.J. gain the weight he needed, they carefully tracked his weight using *graphs*. We've made a **double-bar graph** based on data from the book.

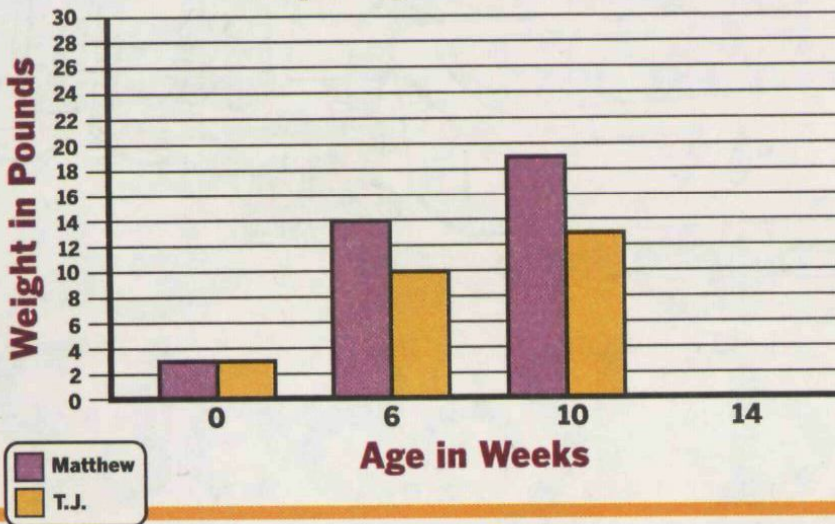
The story has a happy ending: T.J. has grown into a healthy adult tiger. He now lives at the St. Louis Zoo in Missouri and weighs more than 400 pounds! Watch your *skills* grow as you read a double-bar graph of T.J.'s early growth.

T.J. THE TIGER: CINDY BECKEL/THE DENVER ZOO

What to Do

- ✓ Double-bar graphs are used to compare more than one set of data.
- ✓ For the graph below, veterinarians found out how much T.J.'s father, Matthew, weighed when he was 0, 6, and 10 weeks old. They checked T.J.'s weight at the same ages. They made a graph like the one below. It showed that T.J. didn't gain weight as quickly as Matthew did when he was a cub.
- ✓ Use the graph to compare T.J.'s and Matthew's weights! We'll show you how in the example below.

Comparing Matthew and T.J.



Example: At age 6 weeks, how many more pounds did Matthew weigh than T.J.?

Answer: Look at the bars above age 6 weeks.

✓ Subtract T.J.'s weight at age 6 weeks from Matthew's weight at that age.

✓ The key shows that the purple bar represents Matthew's weight. That bar reaches the line at 14 pounds. The yellow bar represents T.J.'s weight. It reaches the line marked 10 pounds. $14 - 10 = 4$.

✓ **Matthew weighed 4 pounds more than T.J. at age 6 weeks.**

1 Write each tiger's weight at 10 weeks.

A. Matthew:

B. T.J.:

2A. Did the difference between Matthew's and T.J.'s weights increase or decrease between 6 weeks and 10 weeks?

B. By how many pounds?

3 Which tiger weighed 3 pounds at birth (0 weeks)?

4A. How much more did T.J. weigh at 6 weeks than he did at birth?

B. How much more did Matthew weigh at 6 weeks than he did at birth?

5 Here is each tiger's weight at age 14 weeks:

Matthew: 29 pounds

T.J.: 19 pounds

Add this data to the graph over the space we've left at 14 weeks.

CHALLENGE!

At age 12 weeks, T.J. started to grow quickly. T.J. gained as much weight between 14 and 16 weeks as he did between 10 and 14 weeks. How much did he weigh at 16 weeks?

—By Matt Friedman

Note to Teachers

For excerpts of Marilyn Burns's *Tiger Math* lesson, see page T6 of this issue's Teacher's Edition!

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