

Science

Genre

News Stories give up-to-date information about world events.

Text Feature

Line Graphs show changes over time.

Content Vocabulary

intelligent

exposure

impressive

phrases

demonstrated



DOG AMAZES SCIENTISTS!

Rico the border collie has a knack for learning words.

by Kim Christopher

GERMANY - A border collie named Rico is amazing scientists with his knowledge of human language. Rico recognizes at least 200 words and quickly learns and remembers even more.

Rico began his training when he was ten months old. His owner,

Susanne Baus, put toys in different places and had Rico fetch them by name. She rewarded Rico with food or by playing with him. Rico continued to learn more and more new words. Scientists first noticed Rico when he showed off his talent on a popular German game show.

Border collies are **intelligent** medium-sized dogs that have a lot of energy and are easily trained. They like to stay busy, and they like to please their owners.

Even though nine-year-old Rico knows 200 words, he doesn't know as many words as even the average two-year-old person does. Human nine-year-olds know thousands and thousands of words, and they learn about ten new words a day. Still, Rico's ability to find objects by name is so **impressive** that scientists wanted to study him.

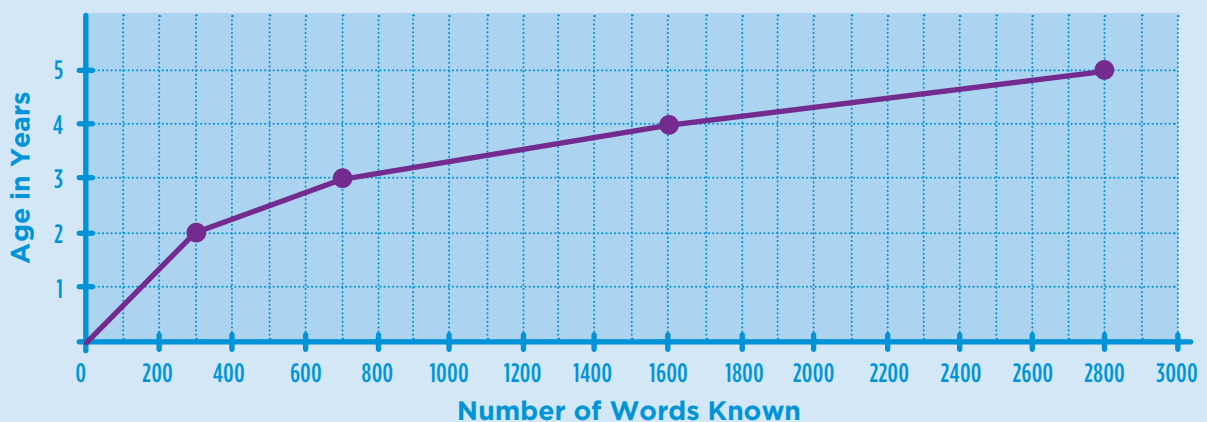


Number of Words a Child Understands



Reading a Line Graph

This graph shows how many words a child understands at different ages.



Humans have the ability to learn words far faster than even the smartest dog.

Scientists learned a lot about Rico as they watched him fetch familiar toys by name. Then Rico **demonstrated** something amazing. He showed scientists that he could pick out toys he had never seen before by name! Scientists put some familiar toys in a room. They added a new toy. Rico's owner asked him to fetch the new toy. Most of the time in these tests, Rico picked out the right toy.

Scientists think that Rico connects new words to new things. Since Rico already knows the names of old toys, he knows he should pick out a new toy when he hears a new word.

Rico can also remember the name of a new toy after just one **exposure**, or experience, with that toy. This shows scientists that even though animals are unable to talk, they can understand words. Rico's vocabulary seems to be as large as that of animals that have been trained in language. Those animals include apes, sea lions, dolphins, and parrots.

Most dog owners will tell you that their pets are very smart. But just how smart is Rico? Is he an outstanding dog in a breed known to be very intelligent? Or is Rico a "dog genius"?



Scientists are now studying Rico to learn more. They want to know if Rico can understand **phrases** such as “put the toy in the box.” Rico’s owner thinks that he can. The answers to questions about Rico’s intelligence are still to come. The outcome of the study will be interesting to both scientists and dog owners all over the world.



Connect and Compare



1. Look at the line graph on page 439. About how many words does a 4-year-old understand? **Reading a Line Graph**
2. If you were a scientist, what other animals would you test for language skills? How would you do that? **Synthesize**
3. Think about this article and *Dear Mrs. LaRue*. What do you think Rico would say if he wrote a letter to his owner? **Reading/Writing Across Texts**



Science Activity

Research border collies. Report to the class where this breed originated and what it does best.



Find out more about border collies at www.macmillanmh.com

Write About Solving a Problem

Writer's Craft

Rearrange Ideas

An explanation should start with a topic sentence and explain the parts of the solution in sequence order.

Rearrange ideas when necessary.



I started with a topic sentence.

I explained how I solved my problem. I arranged my sentences in sequence order.

Keep That Collar On

by Tammy G.

Our dog, Daisy, always used to slip out of her collar and run away. When she started to do this, we would chase her down and scold her.

My family discussed how to solve the problem. We listed different ideas we had. We crossed out the ideas that wouldn't work, like my brother's idea that we should stop taking Daisy for walks.

Then we chose the best one.

We got a stretchy collar, so it would stay on Daisy better.

The problem was solved!



Your Turn

Write one or two paragraphs to explain how you solved a problem. Begin by stating the problem. Then list the steps you took to solve it. Be sure to rearrange ideas if necessary. Use the Writer's Checklist to check your writing.



Writer's Checklist

- Ideas and Content:** Did I clearly describe the problem and how I solved it?
- Organization:** Did I begin with a topic sentence and then **rearrange ideas**, if necessary, to improve the order?
- Voice:** Can the reader tell that I care about this topic?
- Word Choice:** Did I choose words that are precise?
- Sentence Fluency:** Does my writing sound choppy when I read it aloud? Can I join some sentences to improve the flow of my writing?
- Conventions:** Do pronouns and their antecedents agree? Did I check my spelling?