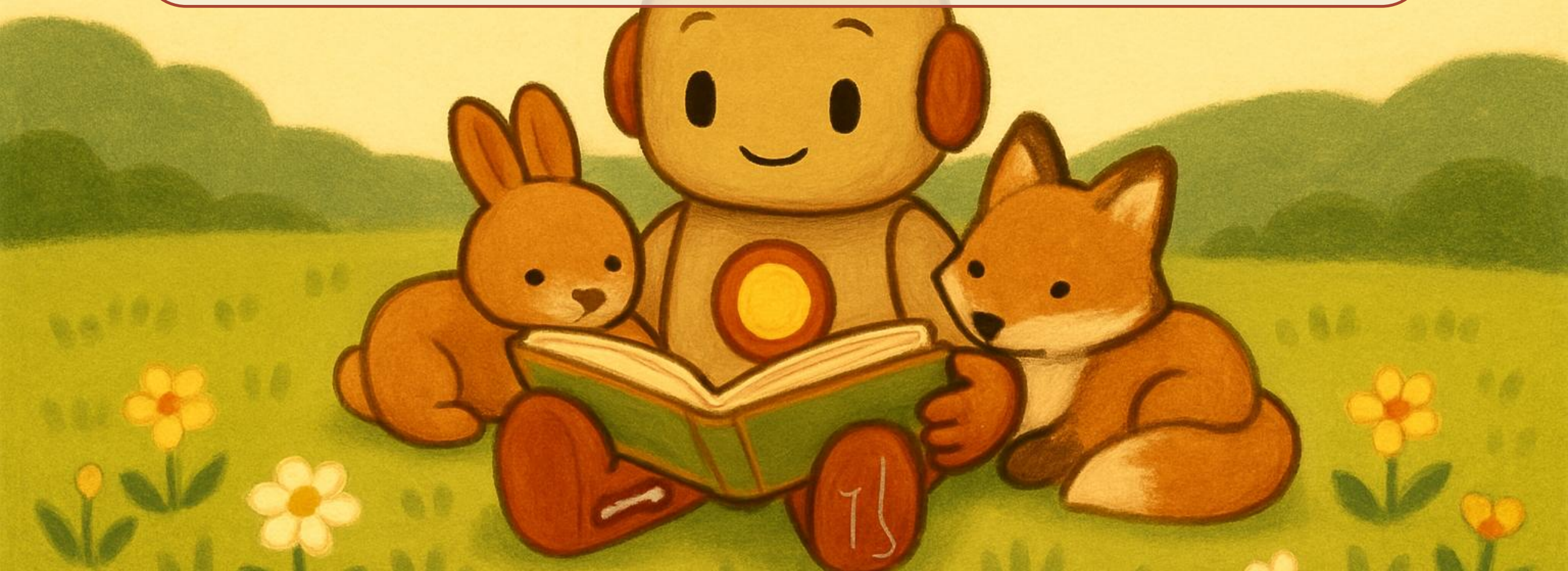
One byte at a time

A Byte story about **tokens** in AI

by Dr. Joe Watkins

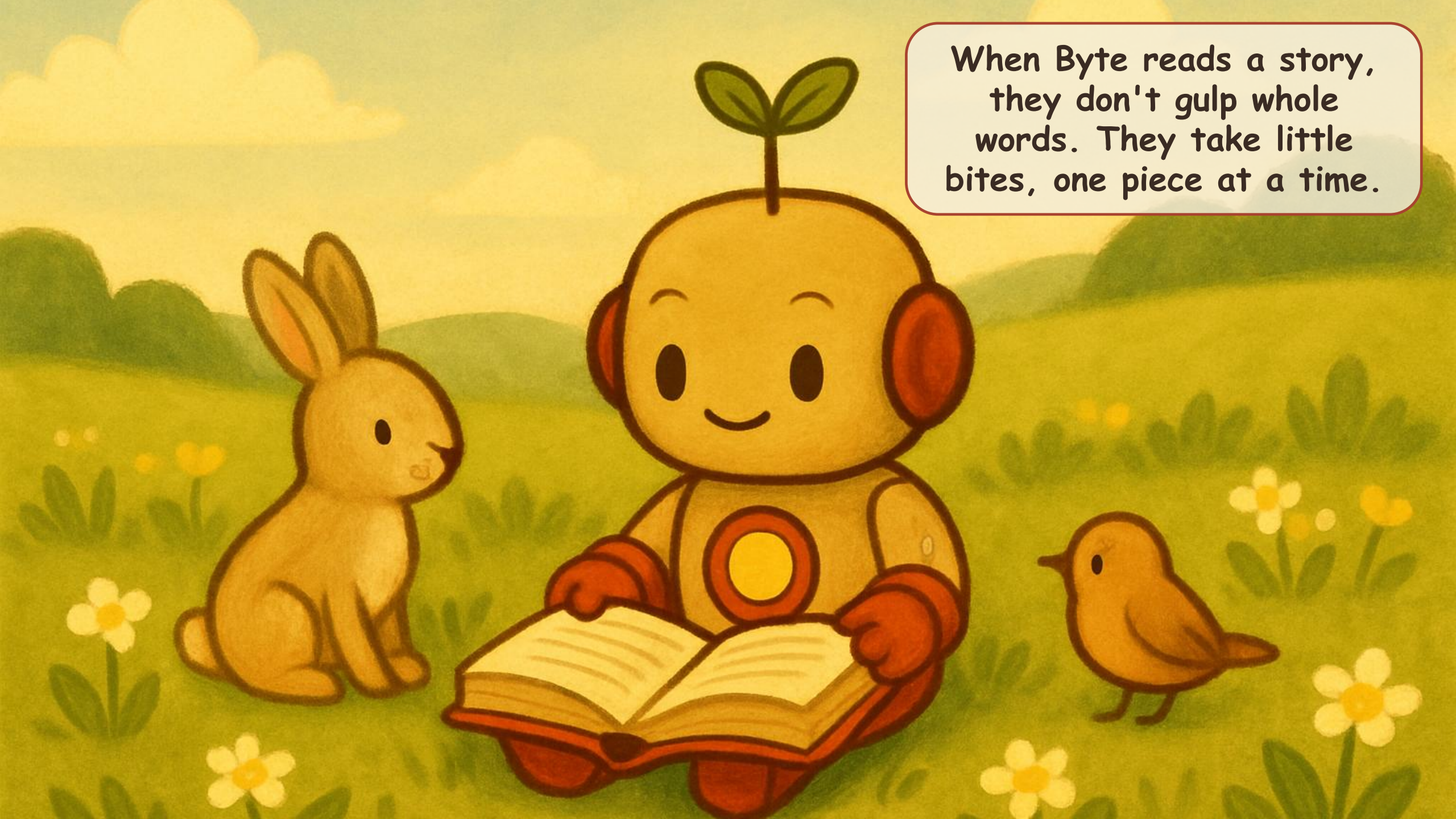


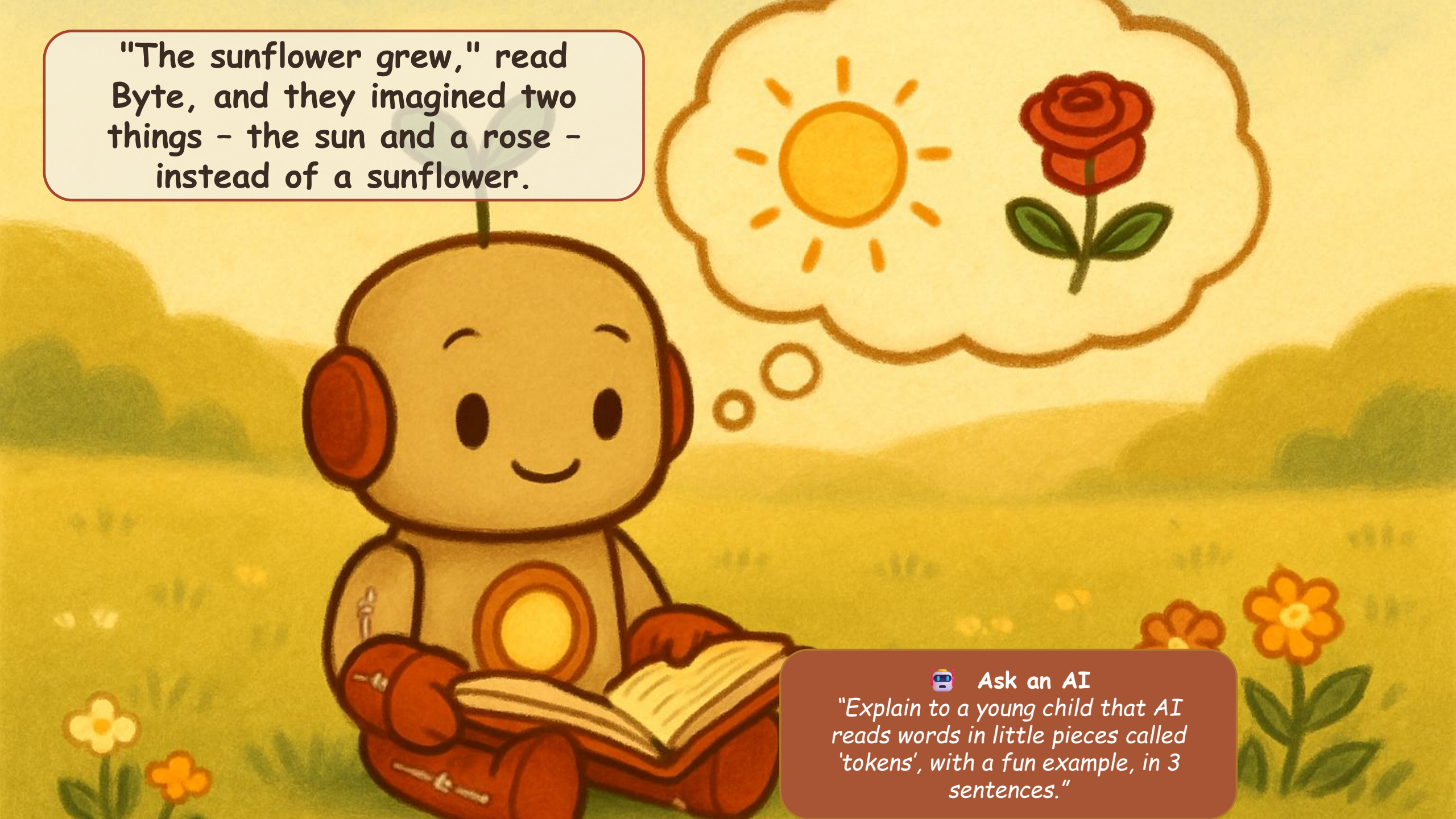
Before we begin — a note for grown-ups

An AI reads in '**tokens**', **which are** little pieces of words, not whole words, that the machine processes. It doesn't read words in the same way a person does, but by breaking them down into these little chunks. This is why AI often makes mistakes and responds in a way that seems too literal, and less human!

In this story, Byte reads by taking little "bites" of each sentence and the friends learn that words are built from pieces you can snap apart.

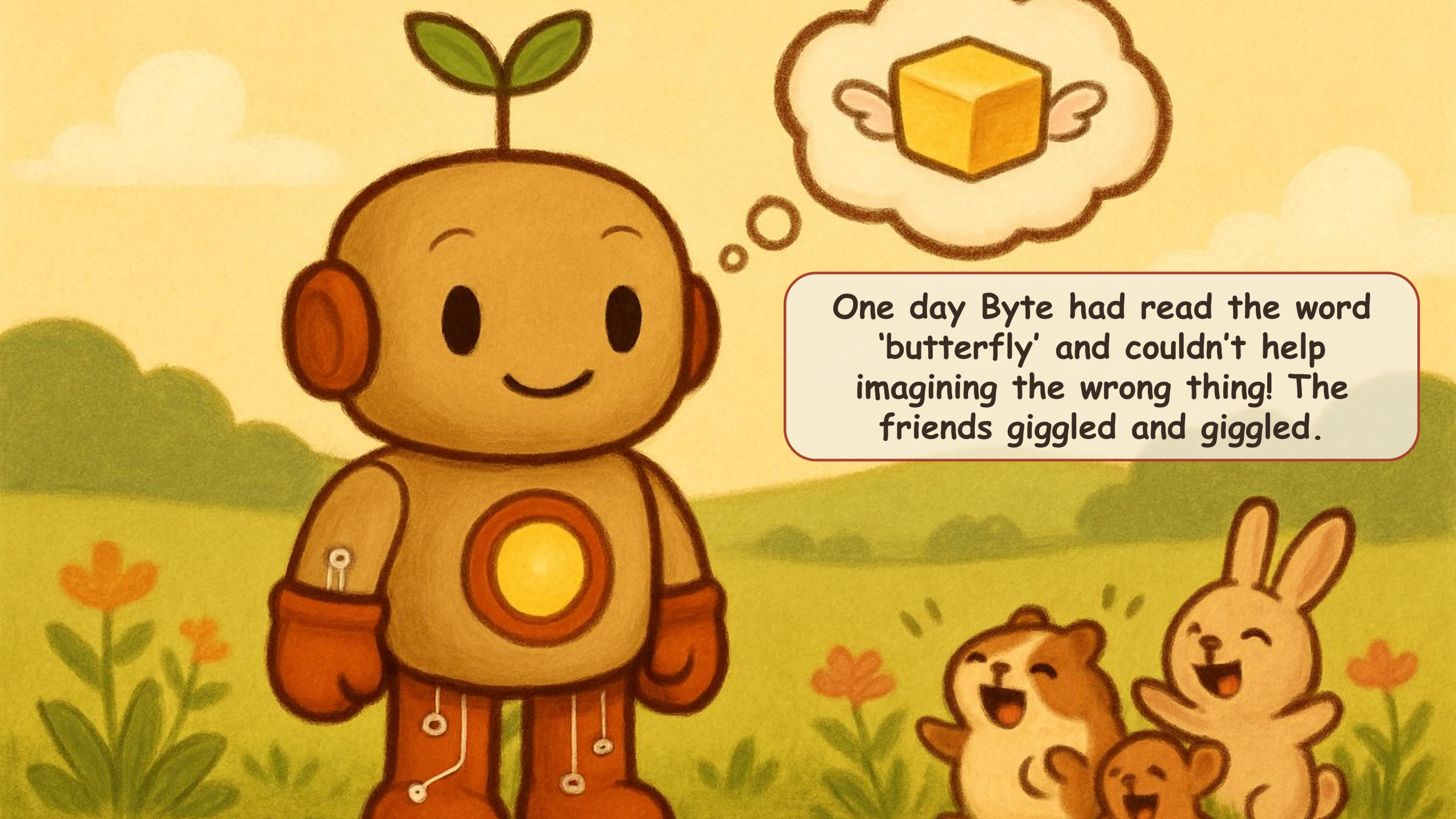
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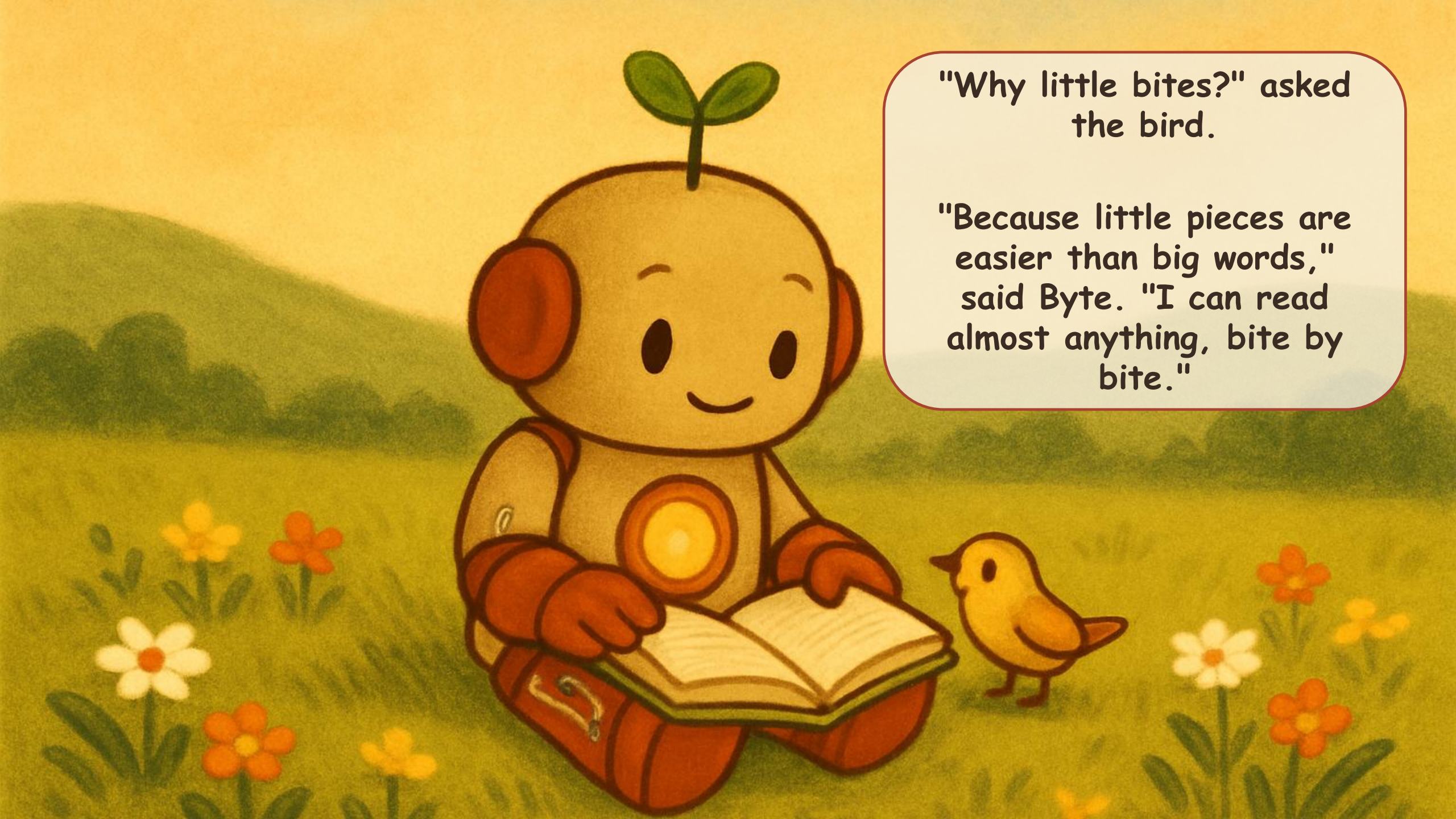

When Byte reads a story, they don't gulp whole words. They take little bites, one piece at a time.


"The sunflower grew," read Byte, and they imagined two things – the sun and a rose – instead of a sunflower.
Ask an AI
"Explain to a young child that AI reads words in little pieces called 'tokens', with a fun example, in 3 sentences."


The rabbit was amazed. "You read the words in little bites, not all together!"


Sometimes the little bites of words were funny. "Hedge... hog!" read Byte one day and they imagined a hedge and a hog!


One day Byte had read the word 'butterfly' and couldn't help imagining the wrong thing! The friends giggled and giggled.


"Why little bites?" asked the bird.
"Because little pieces are easier than big words," said Byte. "I can read almost anything, bite by bite."



Soon the friends wanted a go too. Byte's friend the rabbit liked strawberries and wanted to imagine what the little bites of this word might be. What do you think they imagined?

Talk together

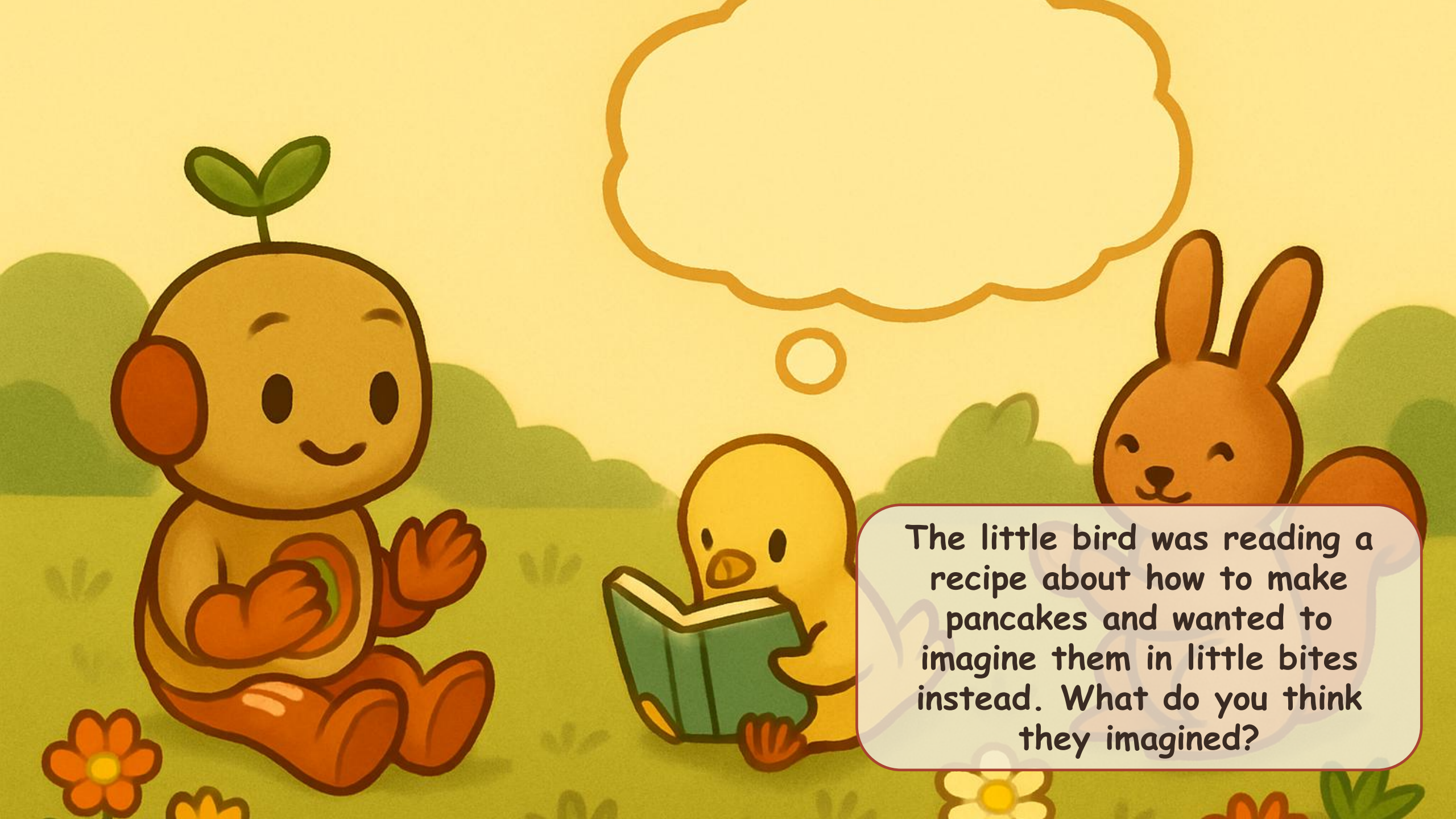
Can you make up a brand-new word? Where would its pieces go?



Talk together

Can you make up a brand-new word? Where would its pieces go?

The rabbit imagined a drinking straw and a berry … a blackberry!


The little bird was reading a recipe about how to make pancakes and wanted to imagine them in little bites instead. What do you think they imagined?


They imagined a frying pan and a cake instead, which was very funny to them!


Now for fun, the friends all enjoyed reading together at bedtime, taking little bites from the books.

Let's talk about it together ☘

- Does an AI read whole words, or little pieces?
- Where would YOU snap some big words into pieces?
- Can you find a little word hiding inside a big word?
- Could you read a brand-new made-up word by breaking it into pieces? Does this always work?
- Why might reading in pieces sometimes help with a word you've never seen?

🔍 **Spot the AI!**
Every picture here was generated by an AI — and AIs make funny little mistakes. See how many you can find: does Byte's antenna, chest-light or silver circuitry change from page to page? Do the animals shift or swap? Noticing what AI gets wrong is a real AI-literacy superpower.

Scan to read the full lesson
at the AI Literacy Lab