

Disney

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SCIENCE in COMICS

Age of the Dinosaurs

THE LIBRARY OF THE LOST
DINOSAURS

PAPERCUT Z

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Age of the Dinosaurs



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DINOSAURS

AGE OF THE DINOSAURS: THE LIBRARY OF THE LOST DINOSAURS

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Meet Bonnie and the Toys



BONNIE

- Creative, bright, and lively, Bonnie has a **big imagination** and loves **drawing**. Her other favorite pastimes are playing with her toys and going on **make-believe adventures** with them.



REX

- Rex might look like the scariest toy in Bonnie's room, but he's actually **the kindest** toy T. rex in the world. **Caring, absent-minded, and easily worried**, he always comes through for his pals.



TRIXIE

- This blue toy triceratops is a computer geek and **loves playing video games** or chatting online with her toy velociraptor friend. **Brave, smart, and enthusiastic**, she often teams up with Rex.

FORKY

- Made by Bonnie using a plastic **spork** and other objects at hand, Forky is unable to accept his role as a toy in the beginning and thinks of himself as just trash. **Extremely naïve** about everything. He has always a lot of questions.



BUZZ

- This **brave space ranger** is a natural leader and always ready for a **new challenge**. Nothing can stop him, especially if a friend is in danger. His motto: "To infinity and beyond!"



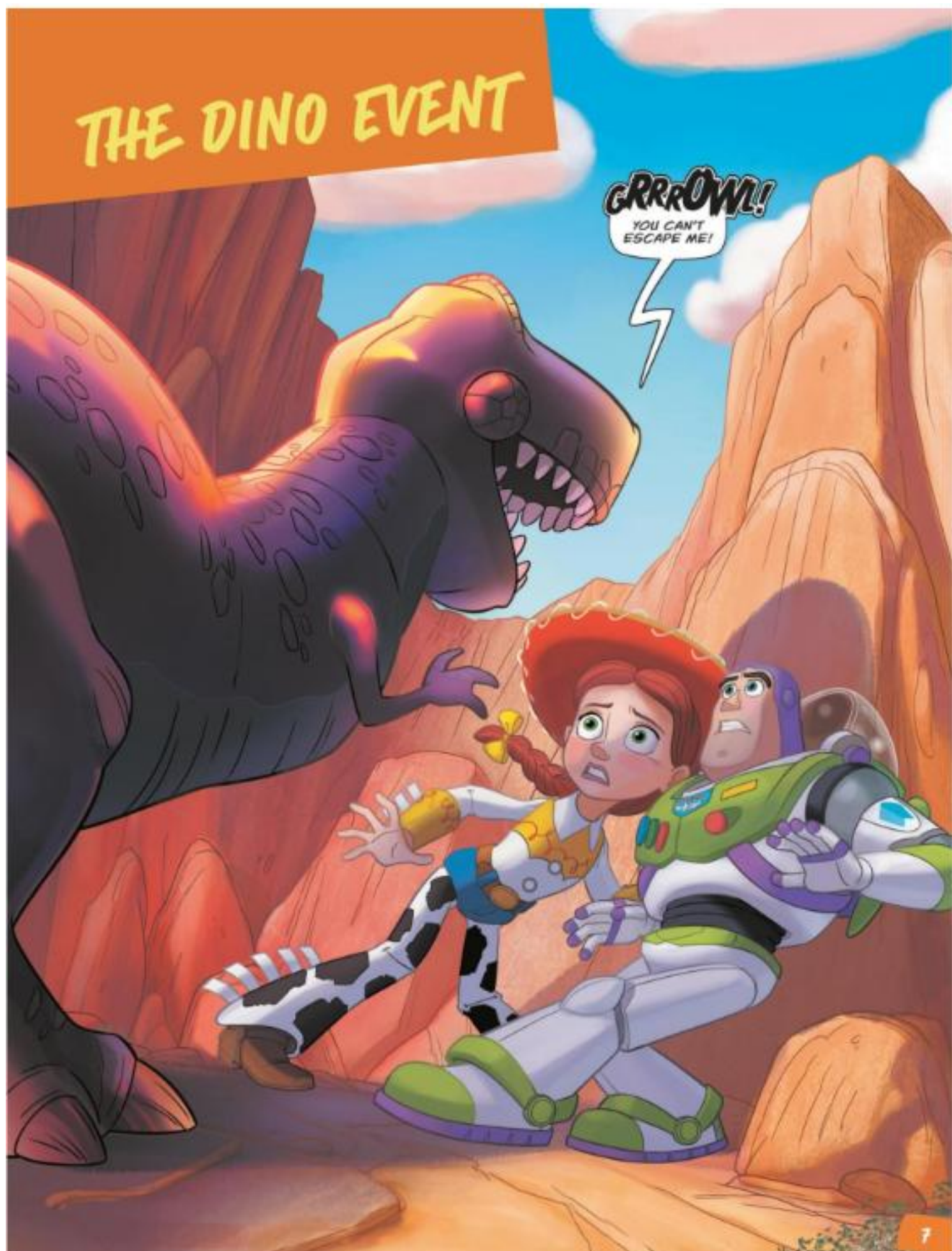
JESSIE

- **Cheerful, supersmart, and quick-thinking**, Jessie is a fantastic **cowgirl**. She always has **the brightest ideas** and never forgets to keep an eye on **Bonnie and her toy friends**.



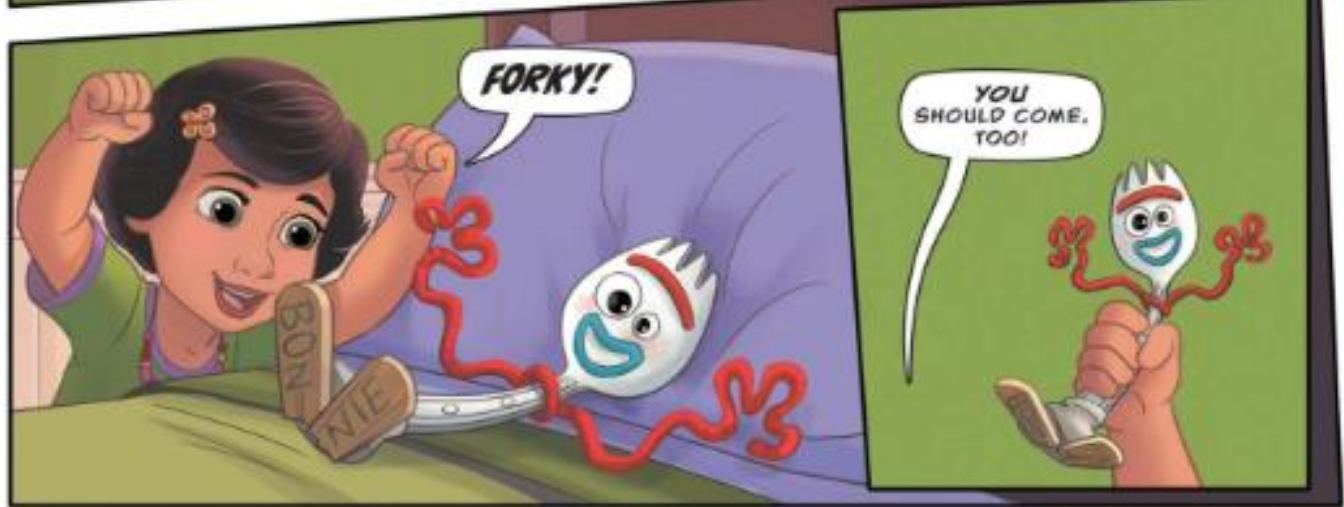
THE DINO EVENT

GRRROWL!
YOU CAN'T
ESCAPE ME!

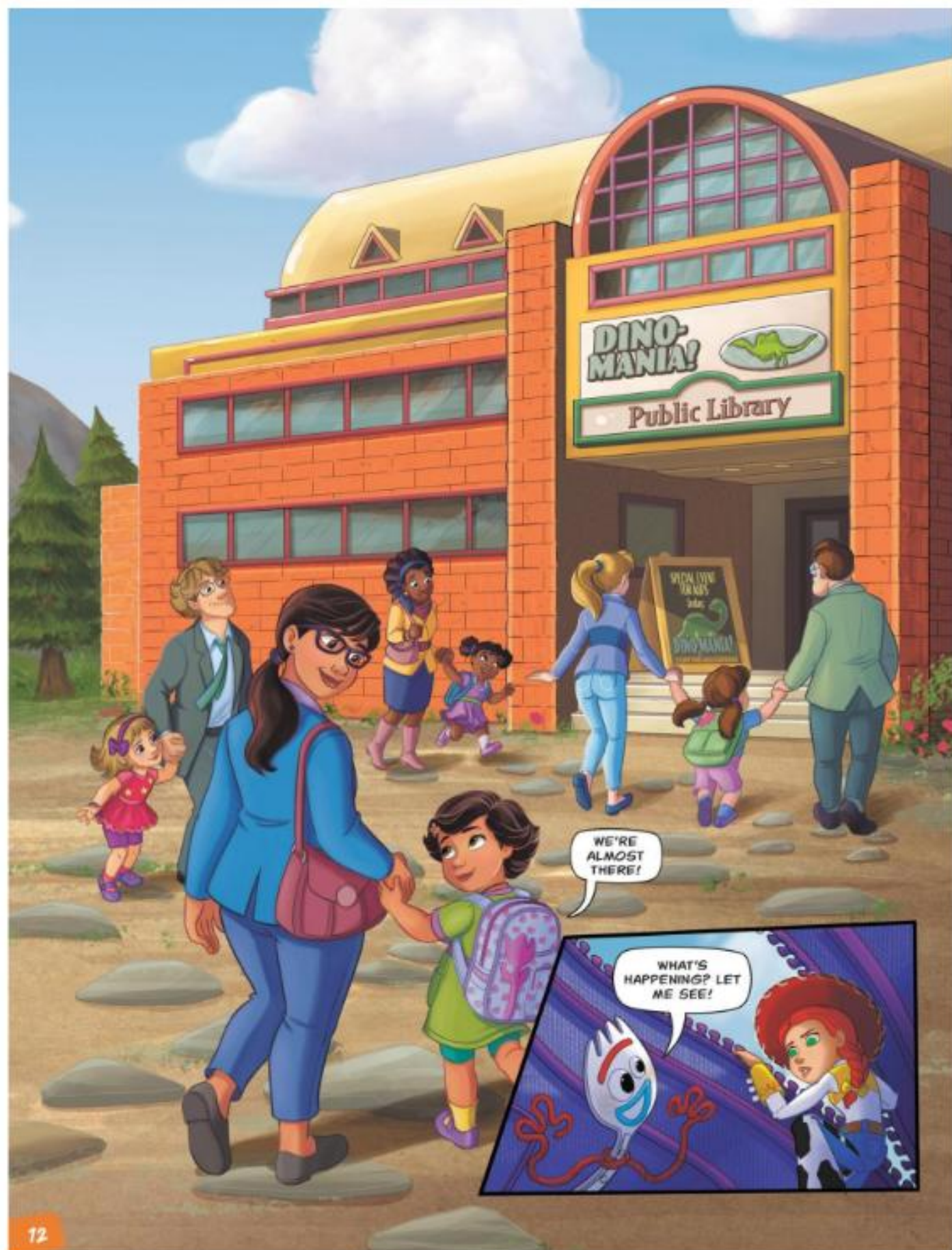


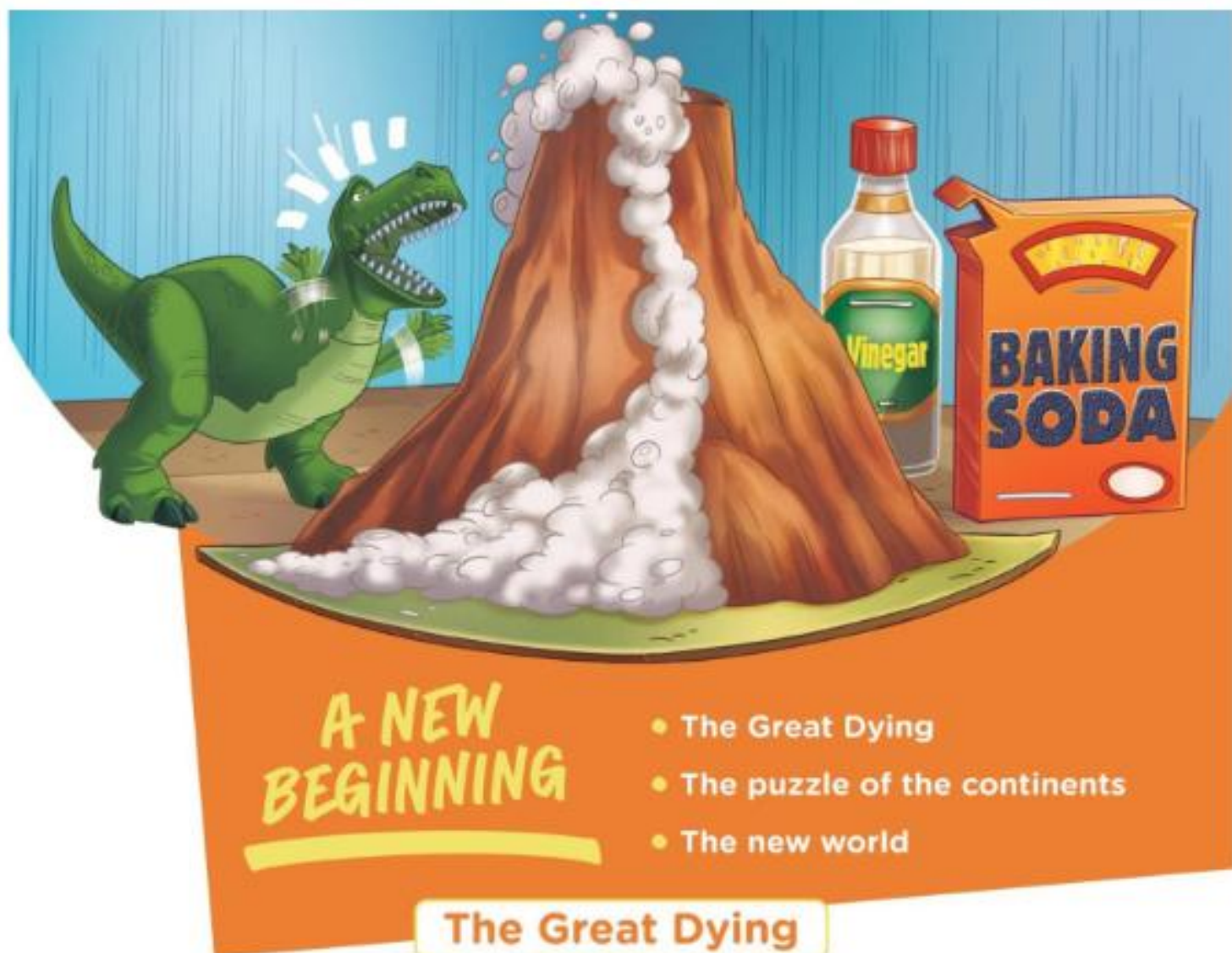












THE FIRE BELT

It all started around **252 million years ago (MYA)**, when Earth was struck by an incredible event: a mass extinction of numerous living organisms, the greatest loss of life in the history of the planet. An astonishing 90–95% of living species disappeared. This marked the end of the Paleozoic era and the beginning of the Mesozoic one.

But what caused the mass extinction? It was probably one of the largest volcanic eruptions ever, during which a great number of volcanoes spewed white-hot ash and

lava for thousands of years—almost 3 million cubic kilometers in all. The ash darkened the skies for decades, and without light the plants and animals struggled to survive.

	298.9 251.9 MYA	251.9 201.3 MYA	201.3 145 MYA	145 66 MYA	66 23.03 MYA	
Carboniferous	Permian	Triassic	Jurassic	Cretaceous	Paleogene	Neogene Quaternary
Paleozoic era		Mesozoic era			Cenozoic era	

↑ The history of life on Earth is very long and has been divided into eras, such as the Mesozoic, which in turn is divided into periods, like the Triassic and the Jurassic. MYA = million years ago

HEROIC PLANTS

The eruptions altered the composition of air and rain, which became toxic and therefore harmful to life. Rain fell on rivers and seas, reducing the level of oxygen in the water, and causing the slow suffocation of life forms.

But in nature, a disaster is often an opportunity for new life forms to develop, and during the Triassic period life began again from a few survivors. It took millions of years, but **plants** were the lead players in this rebirth. It's a fact that plants can flourish even in regions that have been destroyed by lava and ash, and that is what happened. **Conifers**, those trees with needle-like leaves

and cones, reconquered large areas of land, making the air breathable again, and animals gradually began to spread once more.



Reconstruction of *Dicroidium*, a Triassic fern that was prevalent among paleoflora—the plants living during Earth's historical eras—and preferred hot, dry climates. This information enabled paleontologists to better understand the climate changes that took place during that period.

THE LILLIPUT EFFECT

That's how life recovered in Earth's habitats, but with very little diversity. The first organisms to spread again on land were quite small and scientists called this the **Lilliput effect**. Even the largest animals, the dicynodonts—the ancestors of mammals—were little more than a meter long!

Then there were the little cynodonts that lived in arid habitats; the archosauromorphs, reptiles related to dinosaurs and crocodiles; and small amphibians, such as frogs and salamanders, that inhabited wet zones. The seas were also gradually repopulated, especially

by **invertebrates**—animals without an internal skeleton—and fish. However, important new players also appeared: **marine reptiles**. Their descendants would dominate the seas throughout the Mesozoic.

Living scene reconstruction of the Upper Permian period: a group of *Dicynodon* approaches the creek while a pack of *Procynosuchus* watch from the other bank.

