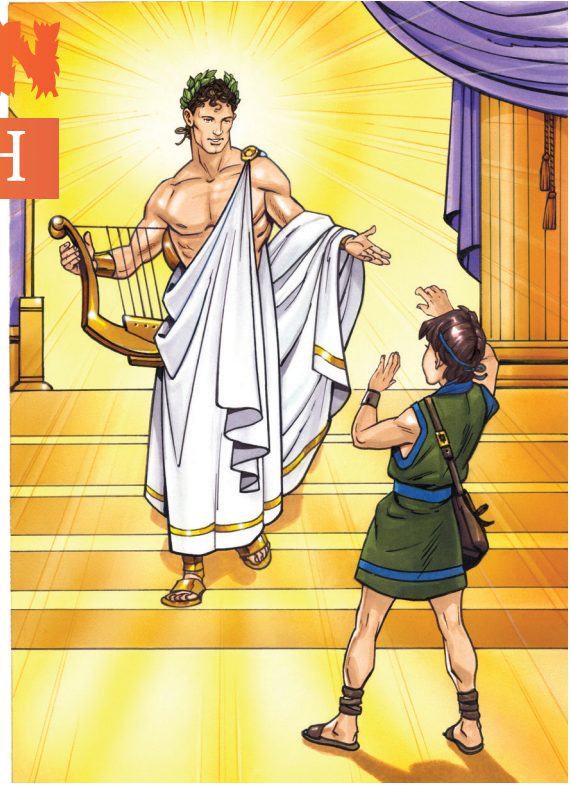


# PHAETHON

## A GREEK MYTH

Phaethon was just a boy when he **ventured** into the land of the sunrise. The Sun's home could not be visited by **mortals**; however, Phaethon was only half-mortal because his mother was mortal but his father was a god, the Sun himself. Phaethon had never met his father before.



Phaethon entered the Sun's brilliant palace, shielding his eyes from the blazing light. As he approached the Sun's sparkling throne, the Sun asked, "What brings you here?"

"My mother tells me that you are my father, but my schoolmates tease me for saying that I am your son. I am here to find the truth," said Phaethon.

The Sun smiled kindly and replied, "Yes, Phaethon, I am indeed your father and now that you are here, I can show my love for you. Ask anything of me, and on my **oath**, you shall have it."

Phaethon recalled how often he had watched his father in his fiery **chariot** flying in a high arc across the sky. It was an amazing sight that made him burst with pride; how thrilling it would be to make that sky journey himself! "I wish to drive your chariot," Phaethon said.

The Sun immediately **regretted** his promise. "I cannot take back my oath," he told Phaethon, "but you do not realize what you are asking. No god but me is strong enough to drive the chariot across the sky.



The horses are **mightier** than any you have known, and the dangers are too great. Please, ask for something else."

But Phaethon's mind was made up and he pleaded, "Just for one day." The Sun did not have time for more arguments, for the day's chariot ride was about to begin.

Phaethon stepped into the golden car and took the **reins** in his hands. As the horses galloped out from the gates, their feet flew over the clouds at breathtaking speed. Phaethon held on as the chariot climbed swiftly, but his grip on the reins felt as light as air to the horses. Instead of following their steady path, they swerved to the right and to the left. Out of control, they soared up to the starry heavens, nearly touching the **hideous** fangs and claws of the Scorpion. Phaethon dropped the reins and huddled in terror.

Then the chariot made a steep plunge all the way down to the earth, setting it ablaze. The rivers turned to steam, the forests burned to ash, and green lands turned into vast deserts. Phaethon, choking on burning smoke, wished for an end to this terrifying ride.

Zeus, the king of the gods, heard Earth crying out for help. He looked down from Mount Olympus and saw the Sun's chariot **careening** wildly. Zeus hurled a thunderbolt at the reckless chariot, causing it to shatter. The horses galloped into the sea, ending the journey.

## Phaethon: A Greek Myth

### KEY VOCABULARY

- **ventured** (verb) To *venture* is to go on a journey.
- **mortals** (noun) A *mortal* is a being who does not live forever.
- **oath** (noun) An *oath* is a strong promise.
- **chariot** (noun) A *chariot* is a kind of cart pulled by horses.
- **regretted** (verb) To *regret* is to feel sorry about something.
- **mightier** (adjective) *Mightier* means more powerful.
- **reins** (noun) *Reins* are long straps used to guide a horse.
- **hideous** (adjective) *Hideous* means unpleasant to look at.
- **careening** (verb) To *careen* is to sway dangerously from side to side.

- ▶ Why does Phaethon want to visit the Sun's home?
- ▶ Explain why the Sun allows Phaethon to drive his chariot.
- ▶ Organize the events of the story in a timeline from beginning to ending.
- ▶ If Phaethon had been able to control the chariot, what might the ending have been?
- ▶ Do you think the Sun makes the right choice when he allows Phaethon to drive the chariot? Why or why not?
- ▶ Describe a new character and explain how he or she would fit in the story.



# THE TRAVELS OF MARCO POLO

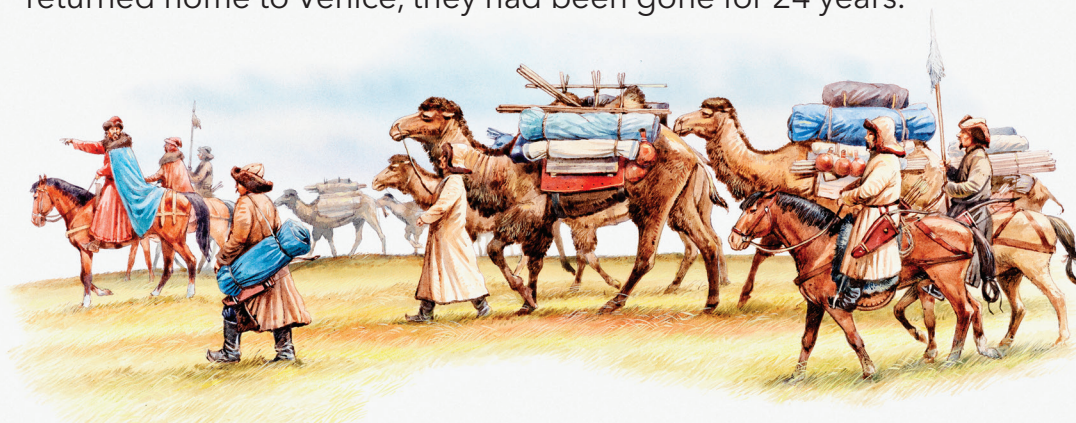
"Here are seen huge **serpents**, ten paces in length. . . .  
The jaws are wide enough to swallow a man."

This description of crocodiles comes from one of the most influential books ever written. Its author, Marco Polo, lived from 1254 to 1324.

Marco Polo was born in Venice, a city in present-day Italy that was a leading center of trade. His father and uncle were wealthy merchants and the first Europeans to visit the court of Kublai Khan, the Mongol ruler of China. When the Polo brothers set off from Venice to visit the Great Khan again, 17-year-old Marco went with them.

The Polos took an overland route. They braved many dangers, from murderous bandits to flooded rivers. They traveled over mountains and through deserts, finally arriving at Kublai Khan's court after a journey of three and a half years.

Kublai Khan took a liking to Marco Polo. The young man spoke several languages and was a sharp observer. Kublai Khan made Marco Polo a trusted **ambassador** and sent him to the provinces of China and beyond, to report back about the lands and customs. The Polos became members of Kublai Khan's **court**. When the three merchants returned home to Venice, they had been gone for 24 years.



Venice and its rival city of Genoa fought a war. Marco Polo was captured in battle. He entertained a fellow prisoner with stories of his travels to the Far East. His cellmate, who happened to be a writer, wrote down the stories. After his release from prison, Marco Polo had copies made.

The book, *The Travels of Marco Polo*, described things that were new to Europeans. Marco Polo reported that throughout China, paper money was used instead of metal coins. He said that homes were heated with black stones (coal) instead of wood. He described messengers riding in relays over long distances—a **postal** system.

Polo told about busy cities larger than any in Europe. He described silks, jewels, furs, and other finely made objects. He described elephants on parade and grand **banquets**. He told about the peoples of the empire and how the Great Khan ruled over all.

Did Marco Polo really serve in the court of Kublai Khan? Had he really seen what he described? From his own day to the present, many people questioned the truth of his accounts. It was said that on his deathbed, Marco Polo was urged to **confess** that he had told lies in his book. He claimed, "I have only told the half of what I saw."

Versions of Marco Polo's book were printed in many languages. In the late 1400s, the book inspired another explorer, Christopher Columbus, to set sail on an ocean route to the lands of wealth that Marco Polo so **vividly** described.



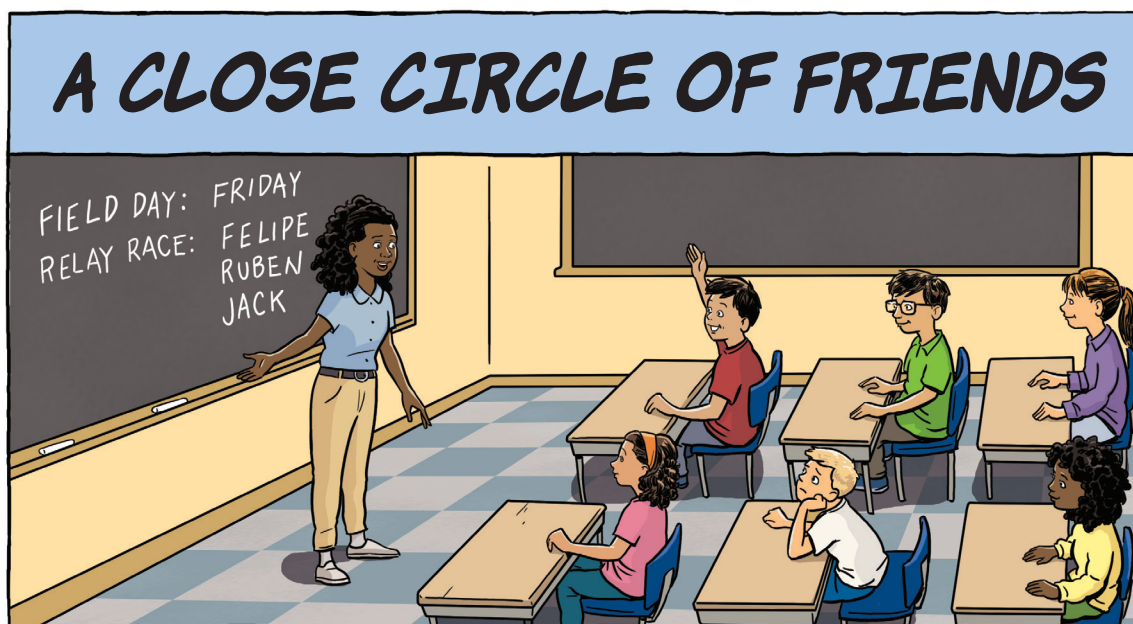
# The Travels of Marco Polo

## KEY VOCABULARY

- **serpents** (noun) A *serpent* is a large snake.
- **ambassador** (noun) An *ambassador* is a person sent to a country as a representative.
- **court** (noun) A *court* is a group of advisers that work for a queen or king.
- **postal** (adjective) *Postal* means related to mail delivery.
- **banquets** (noun) A *banquet* is a large, fancy meal.
- **confess** (verb) To *confess* is to say you did something wrong.
- **vividly** (adverb) *Vividly* means colorfully or with great detail.

- ▶ List three things that Marco Polo saw while traveling that were new to Europeans.
- ▶ Make a timeline showing events that led to *The Travels of Marco Polo* becoming a book.
- ▶ Compare the way information about new places and things was gathered during Marco Polo's lifetime and how information is gathered today. Give examples from the text and your own experience.
- ▶ How are Marco Polo and Christopher Columbus connected?
- ▶ Do you think Marco Polo told the truth in his stories? Why or why not?
- ▶ Imagine you could meet Marco Polo today. What would you want to ask him or talk about? Write or discuss your ideas.





"Field Day is this Friday," Ms. Kanner told Class 6A during the morning's announcements, "and our class needs four speedy runners for the relay race." She looked around the room. "How about you, Felipe?"

Felipe nodded and **gestured** to his two buddies, Ruben and Jack. Ms. Kanner listed the three names and said, "We need one more."

Nelson felt the **urge** to volunteer, because he loved races, but he hesitated. He had been in this school for only two weeks, and nobody had even noticed him. Maybe it was because he was small and easy to overlook. Plus, everyone already was part of a circle of friends. Ms. Kanner picked Thomas, whose hand was up, and Nelson tried not to think about his disappointment.

That afternoon, Nelson sat on the grass by the track. He watched as Felipe, Ruben, Jack, and Thomas each practiced running the 400 meters around the oval and passing the tube-shaped baton. Thomas had the fastest time, so he was assigned the **anchor leg**. After they left, Nelson jogged around the track a few times, just to loosen up. Then he put on speed.

On Friday morning, Thomas arrived in school with a **sorrowful expression** and a limp. His toe had been broken in a skateboarding accident. When Ms. Kanner asked for a replacement, Nelson spoke up. "I can run," he said.

Looking at Nelson **skeptically**, Felipe asked, "You sure?"

"I can run anchor," replied Nelson quietly.

Felipe ran the first leg of the 1600-meter relay, pacing himself well. He saved a burst of speed for the last 50 meters and then passed the baton to Ruben. Ruben held the lead until the halfway point, when two runners caught up to him. He barely managed to keep up with them. Straining, he reached for Jack's outstretched hand, but there was a **fumble**, and Jack couldn't hold onto the **cylinder**. A dropped baton meant precious seconds lost. By the time Jack had completed his leg and passed the baton to Nelson, Team 6A was in third place.

Nelson eased into the run, keeping his eye on the runner ahead. "Just stay right behind him," Nelson told himself. Then, after 100 meters, he pumped harder and passed on the right. At 200 meters, Nelson was on the heels of the first runner, letting him set the pace.

"Stay with him, stay with him, stay with him, GO!" Nelson reached inside for the power he needed. His legs and arms and lungs were in perfect **sync**. He heard his teammates screaming for him as he crossed the finish line first.

Nelson leaned over, hands on knees, to catch his breath. Felipe slapped him on the back. "Man, you're pretty good. What's your name again?"

A few days later, Nelson saw the three buddies on the basketball court. "Hey, guys, it's Nelson!" Felipe called. "Now we can play two-on-two."





## A Close Circle of Friends

### KEY VOCABULARY

- **gestured** (verb) To *gesture* is to make a motion that shows feelings or ideas.
- **urge** (noun) An *urge* is a strong desire.
- **anchor leg** (noun) The *anchor leg* is the final section of a relay race.
- **sorrowful** (adjective) *Sorrowful* means extremely sad.
- **expression** (noun) An *expression* is the look on someone's face.
- **skeptically** (adverb) *Skeptically* means with doubt.
- **fumble** (noun) A *fumble* is a clumsy move.
- **cylinder** (noun) A *cylinder* is an object shaped like a tube.
- **sync** (adjective) To be in *sync* is to be in perfect rhythm.

- ▶ Why does Thomas drop out of the race?
- ▶ Explain how the race focuses attention on Nelson.
- ▶ Put yourself in Nelson's place. Predict what you would do if you were the new kid at school where everyone seemed to be part of a close group of friends.
- ▶ If Thomas had not broken his toe, what might the ending have been?
- ▶ What is your opinion of Felipe? Explain your answer with examples from the text.
- ▶ Imagine yourself in Thomas's position. How would you describe the events in the story?



## Living with the “Good Germs”

We wash our bodies to keep our skin clean. We wash our hands and our food to keep disease-causing germs from getting into our bodies. These are healthy practices, but they don't begin to keep us germ-free. Our bodies are the home planet for an enormous **variety** of tiny creatures, some of them on us and some of them in us. And that's a good thing.

For starters, tiny mites make their homes on our faces and in our eyelashes. Although they are

actually relatives of spiders, these creatures are invisible to the naked eye. Each one is less than 0.016 of an inch (0.4 mm) long. They can slip easily into facial pores, those extremely small openings on the nose, forehead, cheeks, and chin. These face mites particularly like to **nestle** inside our follicles, the pores from which hair grows. The tiny creatures feed on the oil and dead skin cells in our follicles and also lay eggs there. But don't worry about rising mite populations! Our immune systems, the collection of processes in our bodies that protect us from disease, work constantly to keep down these mites' numbers. As a result, we don't even notice them.

Our skin is also home to much, much smaller forms of life, each consisting of just a single cell: **bacteria**. We generally have over 200 kinds of bacteria living on our skin. Instead of harming us, these beneficial bacteria help with the healing of wounds. But that's nothing compared with the bacteria inside our bodies.

A healthy human body contains about ten times more bacterial cells than human cells. Our immune systems target other **microorganisms** that cause us harm, but not these bacteria. Like the ones on our skin, these bacteria are basically harmless or are even helpful.

Let's start with our mouths. Some 25 kinds of bacteria live around our teeth and in small openings in our gums. Brushing and flossing each day keeps their numbers down and prevents them from forming sticky **deposits** called plaque. But there will always be a large colony of bacteria in our mouths, and that's good. They

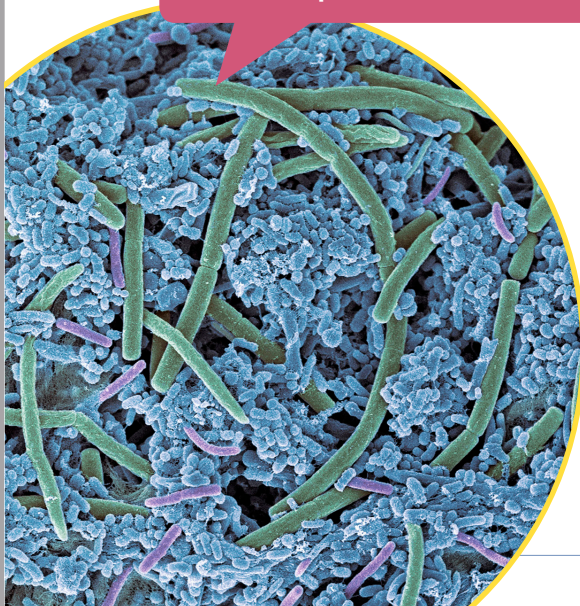
compete for the same food as the bad bacteria that can get in our mouths, helping to prevent illness.

There are very few bacteria in our stomachs because the stomach is such a high-acid environment. But our guts generally contain at least

Some bacteria in our guts help us digest our food.



Plaque is a sticky film that forms on teeth. That's why it's so important to brush.



500 kinds of bacteria, numbering in the billions. These bacteria help us digest our food (we couldn't do it without them!), produce vitamins, **absorb** nutrients, and fight off harmful bacteria that have invaded our **digestive systems**.

So don't worry about all the extra company our bodies contain. It's perfectly healthy!

## Living with the “Good Germs”

### KEY VOCABULARY

- **variety** (noun) A *variety* is an assortment of strange things.
- **nestle** (verb) To *nestle* is to cuddle.
- **bacteria** (noun) *Bacteria* are tiny, one-celled organisms.
- **microorganisms** (noun) A *microorganism* is a living thing so tiny it must be viewed with a microscope.
- **deposits** (noun) A *deposit* is a layer or clump of some material.
- **absorb** (verb) To *absorb* is to soak up.
- **digestive systems** (noun) A *digestive system* is the set of processes that breaks down food inside the body.

- ▶ If tiny mites live on our faces, why can't we see them?
- ▶ Find evidence to support the fact that we have more than 600 kinds of bacteria in our bodies.
- ▶ Illustrate a mite and bacteria living on your skin.
- ▶ Describe the connection between our immune systems and the mites and bacteria you read about.
- ▶ Using what you learned about bacteria, what would you say in response to someone who said, “Bacteria—ugh! I don't want them in my body!”?
- ▶ Imagine you are a mite living on someone's face. Write about or discuss a typical day in your life.



# THE MYSTERY OF THE NAZCA LINES

Near the coast of northern Chile and southern Peru, between two deep valleys, is the Nazca Plain. It is long and narrow, about a mile wide (about 1.6 kilometers) and extending roughly 37 miles (about 60 kilometers). There is almost no wind here and the rains come rarely, maybe once every several years.

This plain is the site of something that has been puzzling the modern world since the 1930s. There are outlines of about 70 animal and plant shapes made by shifting rocks and soil. Many of them are enormous. The largest, a pelican, is about 935 feet long (285 meters). There are also various mathematical shapes, including straight lines, triangles, spirals,

circles, and those uneven four-sided shapes known as trapezoids. Some of them are quite sizable, too. The longest straight line extends 9 miles (14.5 kilometers).

Scientists believe they know the who, when, and how of these shapes and lines. It's the why that is the mystery.

**WHO?** The Nazca Indians **flourished** in this area 1500-2000 years ago. They were an advanced farming culture that built waterways and created beautiful bowls and jars. And they are responsible for these shapes and lines known as the Nazca Lines.

**WHEN?** Scientists believe that the earliest work was done between 500-200 BCE. The **majority** of the work came later, between 200 BCE and 500 CE.



Imagine the Empire State Building on its side. That's how big one of the Nazca lines is—1,250 feet long.

**HOW?** In the earlier works, gravel was often removed and piled inward so that the outlines of the figures were raised above the ground. But mainly, the reddish gravel was carefully removed to uncover the lighter sand underneath. In most regions, this work would barely last a year, brushed away by wind or washed away by rain. But on these dry and windless plains, the Nazca Lines have remained.

**WHY?** Here is a sampling of the many **theories** for the existence of the Nazca Lines.

- Since these lines and drawings can best be seen from the height of a low-flying plane, one **outlandish** idea was that they were alien landing strips. (The loose gravel on these plains would have made for very poor spaceship landings.)
- A less unlikely theory suggests that the giant drawings were **offerings** to the gods above, in hopes of receiving good weather for crops.
- It was suggested in the 1940s that the lines might be a guide



The Nazca spider is about 151 feet in length. That's a little smaller than the width of one football field.

to the stars, but later studies have challenged this idea.

- One theory links the drawings to religious practices. The straight lines are thought to be roads people traveled to get to important religious sites.
- The mathematical figures seem to match up with actual underground water sources. A theory proposed that they were maps to guide people to water.

No single theory covers all the lines and shapes. It is most likely that the Nazca people had many reasons for creating these fascinating pictures that they left for us to puzzle over.

# The Mystery of the Nazca Lines

## KEY VOCABULARY

- **flourished** (verb) To *flourish* is to thrive and grow in a healthy way.
- **majority** (noun) The *majority* is the larger amount or number.
- **theories** (noun) A *theory* is an idea that might explain something.
- **outlandish** (adjective) *Outlandish* means very strange.
- **offerings** (noun) An *offering* is a gift.

- ▶ Describe what the Nazca Lines look like.
- ▶ Explain how the Nazca Lines were made.
- ▶ If you were a scientist, how would you learn more about the Nazca Lines?
- ▶ How are the Nazca Lines connected to the desert climate of southern Peru?
- ▶ Which theory about why the lines were created do you think makes the most sense? Explain your thinking.
- ▶ Imagine you are on a trip to southern Peru. Write an entry in your journal that describes the day you flew over the Nazca Lines.