

Nutrition

Food provides energy that athletes need to perform. Top athletes may need a shocking number of **calories**. Swimmer Michael Phelps once claimed to eat a whopping 12,000 calories a day when he was training for the Olympics. That's definitely outside of the norm.

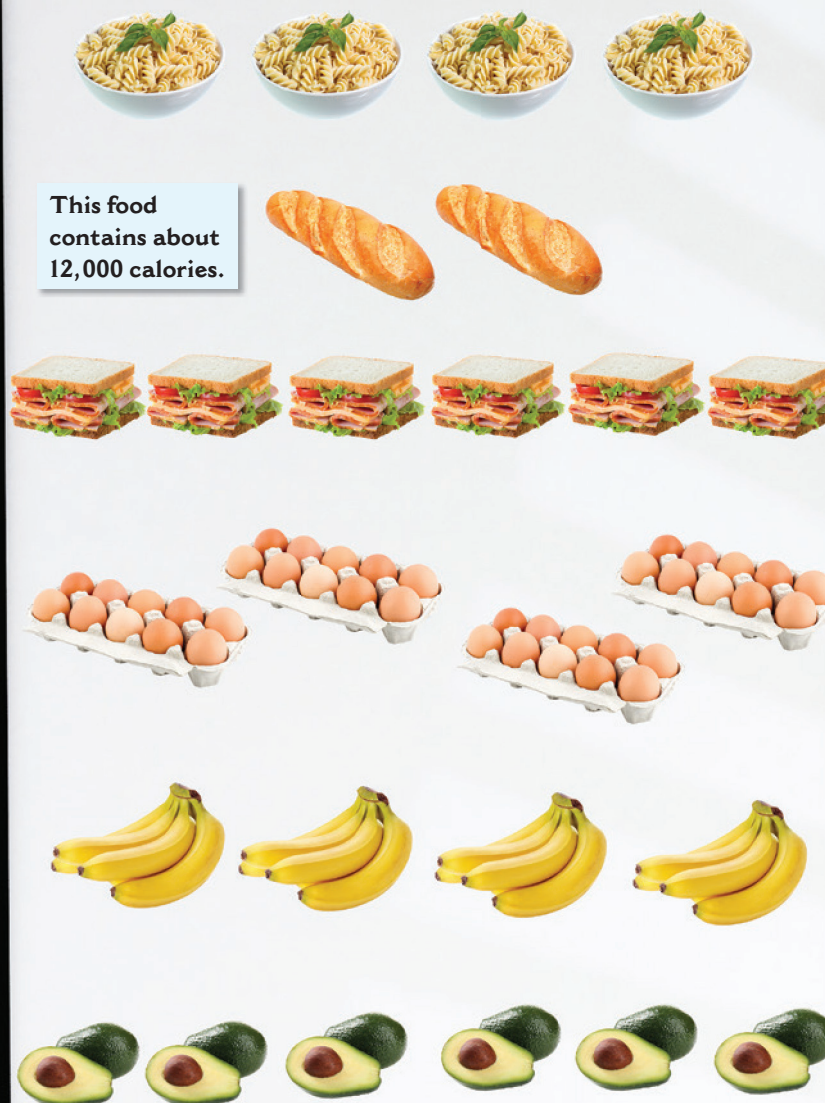
Doctors recommend that meals consist of a healthy balance of foods. This balance includes filling our plates mostly with fruits and vegetables. These should take up about half of a plate at mealtime. About $\frac{1}{4}$ of the plate should have grains, such as brown rice and whole-grain bread. The last $\frac{1}{4}$ of our plate should include lean protein, such as fish or chicken. Healthy fats and dairy products should be consumed in small amounts. Healthy fats include nuts and seeds, while dairy products include milk, cheese, and yogurt.

Many athletes eat a small meal or snack every few hours. When people eat, their bodies store **glycogen**. It's the fuel that gives people energy. About 2,000 calories can be stored at a time. But, some athletes need more fuel. That's why long-distance runners eat extra foods that give them added energy. They may even fuel up during a race with energy gels or sports drinks.



This hiker eats an apple for a healthy snack.

Michael Phelps



This food contains about 12,000 calories.

The Big Day

“Wake up, sleepyheads! Don’t you remember that today is our birthday? We can’t be late.” Mom and Dad roll over in bed, blink their eyes, and yawn.

Zachary and Elizabeth are twins. They have been looking forward to this day for a long time. To celebrate their birthday, the family is going to Excitement Zone, an amusement park.

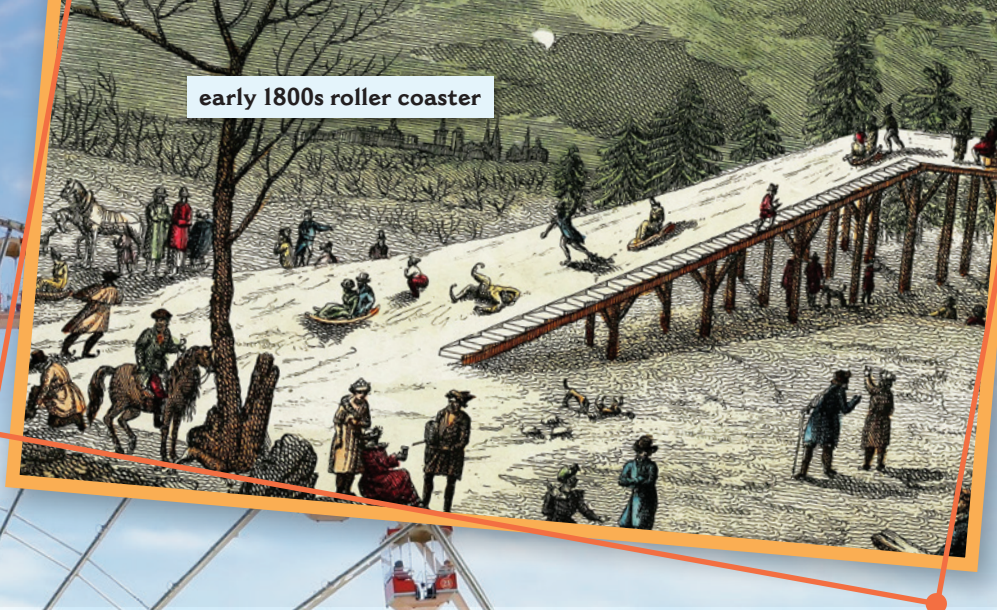
Soon, the twins are eating breakfast while Dad packs for the trip. “We have to be at Excitement Zone when it opens,” says Elizabeth, as she eats her scrambled eggs.

“That’s when the lines for the roller coasters are shortest,” Zachary adds.

“I’m looking forward to it,” replies Mom.

“I’m looking forward to coming back home,” Dad mutters from the kitchen. He doesn’t really like roller coasters. Elizabeth quickly reminds him that he promised to ride at least one roller coaster.

The twins have been reading about coasters to prepare for their special day. On the drive, they tell their parents about Russian Mountains. These man-made sledding hills were popular in parts of Russia hundreds of years ago. “They’re sort of like the parents of roller coasters,” declares Elizabeth.



LET'S EXPLORE MATH

Zachary and Elizabeth pack some snacks for the trip to the amusement park. They have 2 pounds of trail mix. Each container holds $\frac{1}{4}$ of a pound. How many containers can they fill? Use the model to solve the problem and complete the sentence frames to describe it.

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There are _____ groups of _____ in _____.