

73 - Bicycles

Did you know there are more bikes on the road than cars? But how were bicycles invented? How are you able to balance on them? And how come you never forget how to ride one?

What did a volcano erupting have to do with the invention of the bike? Well, about 200 years ago, in the spring of 1815, one of the largest volcanic eruptions on record happened at Mount Tambora in Southeast Asia. The ash cloud caused by the explosion was so enormous, it actually cooled temperatures around the world and caused a local food shortage because crops wouldn't grow. Because of that, the number of animals worldwide began to shrink, including one that was essential for getting around -- the Horse! A German inventor named Karl von Drais realized what a big problem this was.

Sensing a need for alternate transportation, Karl von Drais hammered together a new vehicle, attaching two wooden wheels to a wooden frame. He added handlebars and an upholstered leather saddle. The final product was a simple device weighing 50 pounds, or 23 kilograms, about twice the weight of a bike today. It had no pedals - and you pulled a cord to brake. Drais brought his new invention to Paris, where it quickly became a hit. He called it... the Draisienne!

Despite the odd name and crazy design, the "Draisienne," was a huge success... for a time. When bad roads forced riders to use footpaths, people complained and cities began banning them. But other inventors tinkered with the design, and a new, stronger, metal bike featuring pedals and rubber tires appeared in the 1860's. Around this time, the term bicycle was coined in France. But more people referred to this kind of bicycle by another name -- the penny-farthing.

While it was technically a bicycle, the penny-farthing wasn't anything like the bikes of today. For starters, the penny-farthing had a huge front wheel, the size of a monster truck tire... and a small back wheel - almost like a training wheel. It did have pedals -- but they were connected to the front wheel, and the seat was almost directly on top of it, about four to five feet above the ground.

Safer bikes became more popular in 1885, when British inventor John Kemp Starley introduced one with equal-sized wheels, center pivot steering, and pedals with gears and a chain drive. This bicycle, called the "Rover," is the basic design for the bike we use today, and it had a huge impact on everyday life.

Things You Will Learn

1. Who invented the bicycle and why?
2. How are you able to balance on a bike?
3. Why is it once you learn to ride a bike - you never forget?

We want to make you aware of an amazing service called [Readeo](#) that has really impressed us with the way they are using digital technology to create real-world connections with the littles in your life. [Readeo](#) provides a virtual story-time platform—called BookChat—where you can read award-winning books over video chat with loved ones, no matter how far apart you are. With over 500 books on the site and new ones added weekly (and from major publishers) there's a story for everyone. We're excited that [Readeo](#) is a supporting sponsor of Who Smarted? and we share their love of connecting with a child in a shared reading experience. We have a special offer for Who Smarted? fans. You can try Readeo out for yourself with a 30-day free trial by using the code 'Smart' on [Readeo.com](#).

Activities

1. Ask an adult to help you find a safe place to build a bike course! You can use chalk or road cones to outline the course. Make sure you add in some special turns or tricks.
2. Go on a bike ride with your family! Talk about where you want to go and what you want to see. Do you want to stop at the park half way or try to peddle really fast?
3. Don't know how to ride a bike yet? Check with your local parks department. They often offer classes on how to balance, pedal, and ride a bike safely.

Additional Resources

Bicycles are wonderful fun and exercise, but it's important to follow some simple rules to stay safe. Wearing a well fitted helmet, obeying traffic laws, and being aware of your surroundings are great places to start. For more information on good bike safety, check out [these rules](#)

Kid News

Mount Etna, in Italy, is known for its frequent eruptions -- but its most recent show was particularly impressive. Each eruption was a little different, teaching scientists new and interesting things about volcanos. People living near the volcano have not had to leave their homes. Mount Etna erupts so frequently that the Italian government has been able to create artificial flows to protect the locals. Read more about this fascinating mountain [here](#).¹

¹ This activity guide is for the Who Smarted? podcast www.WhoSmarted.com