



## Bicycle Diaries

On World Bicycle Day pedal away on a 10-stop tour of the humble two wheelers over 200-year-old evolution

### The first practical bicycle

**1817** The first verifiable claim for a practical bicycle was made by German Karl von Drais, a civil servant. Drais invented the *Laufmaschine* (German for running machine) and patented the design in 1818. Commonly called *draisine*, the steerable, wooden, human-propelled machine was the first commercially successful bicycle.

### Bicycles with pedals

**1860s** The bicycle received an upgrade when pedals were added to it. This made it easier for people to propel the vehicle. Ernest Michaux and Pierre Lallement invented a vehicle known as the *velocipede*, also dubbed the *boneshaker* due to the rough ride it offered without brakes.

### The high wheel cycle

**1870** The penny-farthing was the first machine to be called a bicycle. Extremely popular in the 1870s and 80s, it got its name from the British coins penny and farthing – penny indicating the large front wheel, and farthing depicting the tiny back wheel. It allowed users to ride fast. Frenchman Eugene Meyer was the first to invent the high wheel cycle in 1869.

### Advent of the electric bicycle

**1895** Ogden Bolton Jr. was issued a U.S. Patent for a battery-powered bicycle without gear. The motor could draw up to 100 amperes of power from a 10-volt battery.

### In tandem

**1890s** The first publicised bicycle for two was created by Danish inventor Mikael Pederson. Tandem bicycle or twin bicycle is a bike meant for two people. The term "tandem" refers to the seating arrangement for riders, one behind the other.

### The ride got comfortable

**1888** John Boyd Dunlop, a Scottish inventor, created the pneumatic tyre, an inflatable tyre filled with air. This made cycling far more comfortable than before. It also made the cycle much lighter in weight.

### 'Safety' first

**1885** Apart from the speed, the penny farthing was a risky ride for many due to its high front wheel and seating. Hence, in 1885, Englishman John Kemp Starley came up with the 'rover safety bicycle' which had similar sized wheels and a chain drive. This was followed by developments in brakes and tyres. The rover is regarded as the first modern bicycle. It also started the Golden Age of bicycles.

### The rise and fall

**1900s** Bicycles rose in popularity and came to be mass produced. While the basic design remained similar to the safety cycle, several upgrades were made. Bicycles were touted to have had a direct influence on the introduction of automobiles. Soon the popularity of bicycles began to wane. However, in the 1960s, many started seeing the bicycle as a non-polluting and non-congesting means of transportation. Some even began using the bicycle for recreation.

### BMX and Mountain Bikes

**1970s** BMX (bicycle motocross) bikes became popular in the U.S. around the 1970s. These are off-road bicycles used for stunt riding and racing. Today, BMX races have grown into an international sport. Mountain bikes became popular with their mass production in 1981. These bikes are meant for off-pavement riding on a variety of surfaces.

### Hybrid and commuter cycles

**2000s** In the last two decades, several design modifications have been made to the bicycle. Since the number of people using the bicycle for commuting, casual and recreational purposes has gone up, manufacturers are also coming out with hybrid bicycles which combine elements of bike racing and mountain bikes. There have also been attempts at mass producing solar-powered bicycles which will derive power from the sun's rays and help riders travel without having to pedal for some distance at least.

### TECH BYTES

## Tips to use search engines effectively

Keying in a sentence or a word in the search bar of a search engine will get you somewhat relevant results but not what you are exactly looking for. However, there are tips and tricks to get the best, most relevant results for your search queries.

First, you need to be precise about what you want to search. If you want information about the movie 'Hidden Figures', it is better to type 'Hidden figures movie' than just 'hidden figures'.

This will ensure you get results about the movie than general links about hidden figures. Keep in mind that search engines do not pay attention to capitalisation. So, *ballet dancing* and *BALLET DANCING* will fetch you the same results. You do not have to use prepositions such as 'a' or 'the'. Search engines usually ignore such words.

Another thing that is useful when it comes to search engines is the use of operators such as 'or' and 'and'. When you type two words separated by 'or', it will throw up results where either of the words are present. When you use 'and' in between words, the search engine will ensure your SERP (search engine results page) has results where both the words feature.

Search engines also let you search content in a particular website. To do this, type site:(URL of the website) followed by the word you want to search.

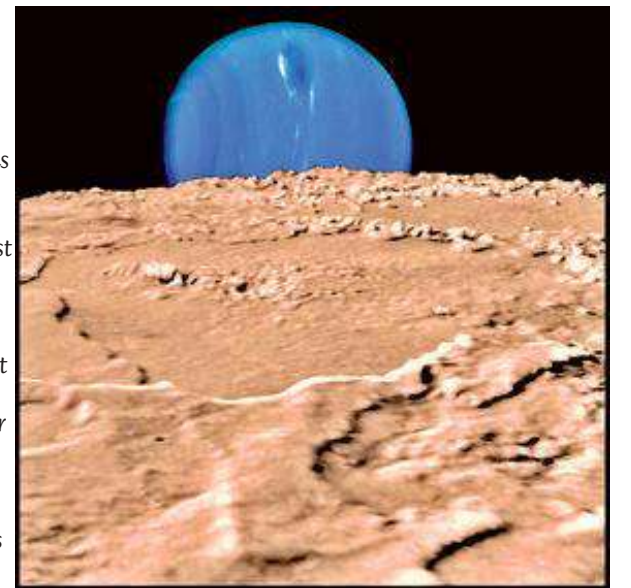


### QUEST

## The bluest one

Is it planet Earth or planet Neptune? Read on to find out more...

We often refer to the Earth as the Blue Planet, because of the presence of water on its surface. But actually, the bluest planet in the solar system is Neptune. Even Uranus has a bluish hue, but Neptune has the deepest blue colour, believed to be caused by the presence of certain gases like methane in its atmosphere. Neptune is the most "modern" in terms of discovery. Though Galileo Galilei had first seen it, he thought it was a star. Scientists suspected the presence of Neptune much before they actually saw it. They were studying Uranus and felt that certain gravitational pulls on Uranus could only be explained by a planet of a particular size, at a particular location in the solar system. Then, they set about searching for the planet through their telescopes. It was discovered in 1846, just one degree away from what one scientist (Urbain Le Verrier) had predicted, and 12 degrees away from another scientist's (John Adams) calculations.



#### FACTBOX

- \*\* Neptune is the eighth and last planet in the solar system. It is 4.55 billion kilometres away from the Sun and is the fourth largest planet.
- \*\* Because it is so far away from the Sun, it is the coldest planet. Its moon, Triton, is the coldest object to be measured in the solar system. It has a surface temperature of 235 degrees C.
- \*\* A day in Neptune is 16.11 hours, but a year in Neptune is equivalent to 165 earth years.
- \*\* Your weight on Neptune would be 1.14 times what you weigh on Earth.

(Content provided by Anrita Bharati)

## What now for tennis in 2020?

Professional tennis has been in cold storage since March due to the coronavirus pandemic with tournaments unlikely to resume before August. A look at three talking points...

#### Fans in or out?

In 2019, the US Open attracted a record crowd of almost 740,000. The French Open last year at Roland Garros brought in 520,000 paying customers.

However, the 2020 editions could be played behind closed doors.

"I can't bear to see an empty stadium. I hope that won't happen," Roger Federer said recently.

"I would like to play another Grand Slam, but if it's like this, I'd rather cancel them." Two-time Wimbledon winner Petra Kvitova said.



#### Money matters?

There has been no prize money to play for over the best part of three months but that hasn't stopped it being discussed.

The ATP and WTA tours, the International Tennis Federation and the four Grand Slam tournaments – the Australian Open, Roland Garros, Wimbledon and the US Open backed a fund worth more than \$6 million to support low-ranked players hardest hit by the coronavirus pandemic.

While many have supported it, others have expressed that they aren't willing as well.



Handshakes might well be a thing of the past for the foreseeable future. PHOTOS: REUTERS

#### Are we making an exhibition of ourselves?

There is some tennis going on in the world at a series of tightly-controlled exhibition events.

Germany kicked it off on May 1 with an eight-man exhibition in the tiny town of Hoehr-Grenzhausen. Strict rules over health and safety meant there were no fans, no ball boys or girls and no line judges.

Similar events followed in the US before Kvitova won an all-Czech event in Prague last week.

"The gloves, face masks, the fact nobody handed us the towels, no handshakes, that was definitely bizarre," said Kvitova.

## Where learning meets fun

Stay informed about the world around you and engage in interesting activities based on general knowledge and creative skills with the six-page The Hindu In School from Monday to Friday.

#### Highlights of the issue

- Completely tweaked to support easy reading online, the issue features news and interactive features to engage students through this extended period of learning from home.
- A full page of activities relating to GK, language skills, heritage, technology, environment, space and sports.
- A daily 10-minute activity challenge and a re-worked newspaper-based activity column.
- Dedicated space for featuring artworks and creative writing by students.
- A space for Principals to voice their opinion on issues relating to students and education.
- Thematic content on Science, Nature & Wildlife, History & Heritage, Language and Life Hack.



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