

From the crack of dawn, technology stirs us with its reliable alarms, and caresses us with the cooling breeze of our ACs as we drift off to sleep, weaving its wonders into our everyday lives. GT pays homage to this silent saviour that simplifies and enhances our existence with a brand new series, unwrapping A to Z of iconic tech pieces, one letter at a time. Here's presenting the **P** in this series that changed human life as we know and live it.

Gurnoor Kaur, AIS MV, VIA

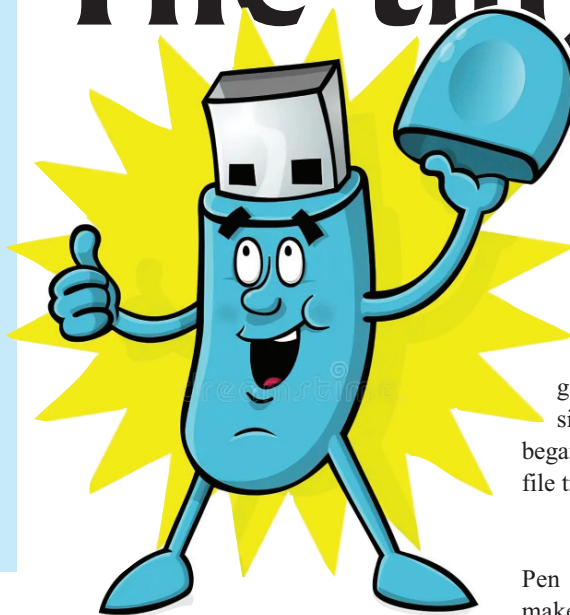
**The tech:** Pen Drive

**The inventor:** The development of the pen drive or USB flash drive involved several individuals and companies. Amir Ban, Dov Moran, and Oran Oqdan of M-Systems, an Israeli company, contributed to its invention. Additionally, Pua Khein Seng, CEO, Phison Electronics Corp invented the USB Flash Drive, which was marketed as Pen Drive.

**How was it invented?**

The origin of the pen drive has sparked

# The tiny tech titans



**When did we get to know it first?**

The pen drive was introduced to the public in 2000, and was commercially launched by the Singaporean company Trek Technology, now known as Trek2000 International. They marketed it as the 'ThumbDrive™' and it quickly gained popularity due to its compact size, large storage, and ease of use. Thus began a new era of portable data storage and file transfer.

**Why do we use it?**

Pen drives serve multiple purposes that make them indispensable in various scenarios. They offer portable storage for large data volumes and enable fast file sharing without internet. With low power consumption and durability, they're resistant to shocks, magnetic fields, and environmental factors. Compatible with various devices and systems they are a reliable solution for data storage, transfer, and backup.

**How has it helped our lives?**

Pen drives have significantly supplanted bulky alternatives like floppy disks and



**Fun fact:** The term 'pen drive' comes from its early resemblance to a retractable ballpoint pen, with a USB connector instead of an ink tip.

CDs, providing convenient on-the-go solutions. They streamline file sharing and data transfer, eliminating the need for physical media or complex networks. Their broad compatibility across devices and Operating systems facilitates effortless data backups, ensuring the security and retrievability of vital files. Furthermore, they enhance productivity by enabling seamless access to work, documents, and media. With diverse memory options at varying price points, they cater to a wide range of users, becoming indispensable tools in both personal and professional spheres. [GFI](#)

# A crystal wonder

## Unveiling The Magic Of Crystallisation Process

Ananiah Wheeler, AGS Gurugram, X

In the land of Elements, there once lived three kids - Blaze, from the superior fire family, Aqua, from the exquisite water lineage, and Cici, a sugar molecule from the migrant sugar community. In school, Cici was considered an outcast because she wasn't from a royal lineage. Life wasn't easy for her, but nonetheless, she always remained sweet through all the hardships that came her way. And her sweetness paid off, when one day, the Element God sent her two friends who promised to always be by her side - Blaze and Aqua! To an outsider's eye, these three friends had nothing in common, but for them, they were the perfect fit. They spent their time together; life was like a shining crystal, but that crystal got broken as they reached middle school. Unlike elementary school, middle school was a total nightmare. Everyone's want to be cool overpowered their need to be true to themselves. And such 'coolness' was not granted to Cici because of her background. Everyone started teasing her and even Blaze

and Aqua joined them.

Days went by, and Cici got used to being all alone, until one day, when their Chemistry teacher put them on a project together. "Be sure to submit your project on time!" he said. The news came as a surprise, and Blaze spoke when the teacher was gone, "Just to make it clear, Cici, I want nothing to do with you." "Oh, come on, Blaze!" intervened Aqua. "This accounts for 50% marks, and I need them to pass. Can't you be adaptable?" he tried to ease the tension. Cici said nothing, but she wanted her friends back. "Come on, guys, I know I'm not an Element and you might feel like that's a disadvantage but look around! Every other group is made of nothing but Elements. Ours is the only group that is different, so we can surely make something nobody else can. We will ace this project, trust me," Cici pleaded. Hesitant, Blaze and Aqua agreed. Aqua filled one beaker with water whilst Cici spawned small cubes of sugar. As they continued to mix their concoction, the transparent water turned cloudy. "Here's where the real magic comes in!" announced

Blaze enthusiastically, as he heated the beaker. Cici, in her overexcitement, accidentally added a little too many sugar cubes to the solution. "Oops!" she apologised and proceeded to dip in a glass rod to scoop out the cubes, but instead her glass rod came out with glistening shiny crystals forming on its dipped end. All of them were surprised at what had happened and quickly placed the rod in a dish to help it cool. "Wow, our very own friendship crystals!" Surprisingly, it was Blaze who said this. At the end of the day, not only did the three friends create something unique, they got an A+ and topped the class, and realised that friends are made by heart, not by social backgrounds. And their friendship shined bright like crystals again.

### The science of it

Crystallisation is the process of separating pure, and soluble solid compounds from a liquid solution, through evaporation and cooling methods in the form of crystals.

