## What Is Bitcoin?

Bitcoin is **a form of digital currency that aims to eliminate the need for central authorities such as banks or governments**. Instead, Bitcoin uses blockchain technology to support peer-to-peer transactions between users on a decentralized network.

### **KEY TAKEAWAYS**

* Launched in 2009, Bitcoin is the world's largest cryptocurrency by market capitalization.
* Unlike fiat currency, Bitcoin is created, distributed, traded, and stored using a decentralized ledger system known as a blockchain.
* Bitcoin and its ledger are secured by proof-of-work (PoW) consensus, which is also the "mining" process that introduces new bitcoins into the system.
* Bitcoin can be purchased via various cryptocurrency exchanges.
* Bitcoin's history as a store of value has been turbulent; it has gone through several boom and bust cycles over its relatively short lifespan.
* As the first decentralized virtual currency to meet widespread popularity and success, Bitcoin has inspired a host of other cryptocurrencies in its wake.

## What Is Dogecoin (DOGE)?

Dogecoin (DOGE) is a peer-to-peer, [open-source](https://www.investopedia.com/terms/o/open-source.asp) [cryptocurrency](https://www.investopedia.com/how-to-buy-baby-doge-coin-5222666). It is considered an [altcoin](https://www.investopedia.com/terms/a/altcoin.asp) and was launched in December 2013 with the image of a Shiba Inu dog as its logo. Dogecoin's [blockchain](https://www.investopedia.com/terms/b/blockchain.asp) has merit with its underlying technology derived from [Litecoin](https://www.investopedia.com/articles/investing/040515/what-litecoin-and-how-does-it-work.asp). Notable features of Dogecoin, which uses a scrypt [algorithm](https://www.investopedia.com/terms/a/algorithm.asp), are its low price and unlimited supply.

### **KEY TAKEAWAYS**

* Dogecoin is an open-source cryptocurrency established in 2013 by Jackson Palmer and Billy Markus.
* Dogecoin features a Shiba Inu, a Japanese breed of dog, as its logo.
* It is based on Litecoin and uses the same proof-of-work technology.
* Dogecoin has a loyal community of supporters who trade it and use it as a tipping currency for social media content.

**What Is Litecoin (LTC)?**

Litecoin (LTC) is an alternative [cryptocurrency](https://www.investopedia.com/terms/c/cryptocurrency.asp) created in October 2011 by Charles "Charlie" Lee, a former Google engineer. Litecoin was adapted from Bitcoin's open-source code but with several modifications. Like Bitcoin, Litecoin is based on an open-source global payment network that is not controlled by any central authority. [Litecoin differs from Bitcoin](https://www.investopedia.com/articles/investing/042015/bitcoin-vs-litecoin-whats-difference.asp) in aspects like faster block generation rate and use of Scrypt as a proof of work scheme.

### **KEY TAKEAWAYS**

* Litecoin is an early altcoin developed by former Google engineer Charlie Lee in 2011.
* It had once been called the silver to Bitcoin's gold, and at its height was the 3rd largest cryptocurrency by market cap.
* Because its structure is similar to Bitcoin's, it has been used as a testnet or testing ground for improvements that later were applied to Bitcoin.

# **What Is XRP?**

Although XRP is often referred to as Ripple, it’s important to know that XRP is an [open-source](https://www.investopedia.com/terms/o/open-source.asp) digital asset independent of Ripple, which is a technology company. Due to its fast, efficient, reliable, carbon-neutral, and fast delivery, XRP is the technology that Ripple uses in its solutions to help customers stay compliant.

XRP operates on its decentralized, open-source [blockchain](https://www.investopedia.com/terms/b/blockchain.asp) known as the XRP ledger (XRPL), and transactions are facilitated by the Ripple transaction protocol (RTXP). Unlike most cryptocurrencies, XRP is [premined](https://www.investopedia.com/terms/p/premining.asp), with a maximum token supply of 100 billion.

### **KEY TAKEAWAYS**

* Ripple is a blockchain-based digital payment network and protocol with its own cryptocurrency, XRP.
* Rather than use blockchain mining, Ripple uses a consensus mechanism, via a group of bank-owned servers, to confirm transactions.
* Ripple transactions use less energy than bitcoin, are confirmed in seconds, and cost very little, whereas bitcoin transactions use more energy, take longer to confirm, and include higher transaction costs.
* Ripple (XRP) ranks among the most valuable blockchain-based tokens by market capitalization.1
* The Ripple payment system is intended to be used primarily by banks but individual investors can speculate on the price of XRP.

## What Is Ethereum?

At its core, Ethereum is a decentralized global software platform powered by [blockchain technology](https://www.investopedia.com/terms/b/blockchain.asp). It is most commonly known for its native cryptocurrency, ether (ETH).

Ethereum can be used by anyone to create any secured digital technology. It has a token designed to pay for work done supporting the blockchain, but participants can also use it to pay for tangible goods and services if accepted.

Ethereum is designed to be scalable, programmable, secure, and decentralized. It is the blockchain of choice for developers and enterprises creating technology based upon it to change how many industries operate and how we go about our daily lives.

### **KEY TAKEAWAYS**

* Ethereum is a blockchain-based platform best known for its [cryptocurrency](https://www.investopedia.com/terms/c/cryptocurrency.asp), ether (ETH).
* The blockchain technology that powers Ethereum enables secure digital ledgers to be publicly created and maintained.
* Bitcoin and Ethereum have many similarities but different long-term visions and limitations.
* Ethereum changed from proof of work to proof of stake in Septemeber 2022.2
* Ethereum is the foundation for many emerging technological advances based on blockchain.