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CRYPTO · BEGINNER · LESSON 4 OF 15

Coins vs Tokens

The difference between a blockchain's own coin and the tokens built on top of it, how tokens work, and how to make sure a token is the real one

9 min read 8 quiz questions with answer key

CRYPTO · BEGINNER · LESSON 4 OF 15

Coins vs Tokens

IN ONE SENTENCE

A coin is the native money of its own blockchain, while a token is created by a smart contract on someone else's blockchain, and that difference affects fees, risks and how you verify what you hold.

Coins and tokens: the basic difference

People often use "coin" and "token" as if they meant the same thing. In crypto they describe two different kinds of asset.

- A **coin** is the native currency of its own blockchain. It is built into the network's rules, and it pays the fees on that network. BTC on Bitcoin, ETH on Ethereum, SOL on Solana and BNB on BNB Chain are all coins.
- A **token** is created by a smart contract that runs on an existing blockchain. It does not have a network of its own. USDT, USDC, LINK, UNI and SHIB are tokens, and on Ethereum they all depend on Ethereum to exist and to move.

Each blockchain has exactly one native coin, but it can host thousands of tokens. Think of a blockchain as a city: the coin is the city's own currency that pays for roads and services, while tokens are like gift cards and loyalty points issued by the shops inside it.

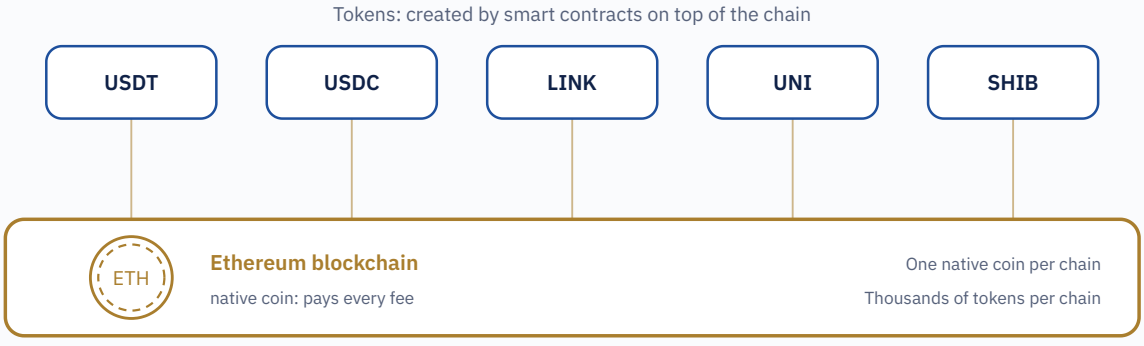


Figure 1. Each blockchain has one native coin, which pays all fees. Tokens are created by smart contracts that run on top of it.

How a token is made

A token is surprisingly simple underneath. Its smart contract keeps a list: which address holds how many tokens. When you send a token, you are not moving anything. You are asking the contract to lower your balance and raise someone else's.

Early on, every token contract worked a little differently, which made life hard for wallets and exchanges. In 2015 Ethereum developers proposed a shared standard called **ERC-20**. It defines a common set of functions, such as checking a balance and sending tokens, so any wallet or exchange can handle any ERC-20 token in the same way. Other blockchains have similar standards, such as BEP-20 on BNB Chain and TRC-20 on Tron.

Because of these standards, creating a token takes minutes and costs very little. That is good for innovation, but it also means **a token existing tells you nothing about whether it has any value**.



Figure 2. A token contract is a list of balances. Sending tokens simply lowers one number and raises another.

ANALOGY: A SCOREBOARD, NOT A WALLET OF COINS

A token contract works like the scoreboard at a sports game. The points are not physical objects that fly from one team to the other. The scoreboard just changes the numbers next to each name. Sending a token is the same: the contract updates the numbers next to two addresses.

Why you still need the coin to move a token

Here is where the difference becomes practical. Every transaction on a blockchain pays its fee in that chain's **native coin**. A token cannot pay for its own transfer.

So if you hold USDT on Ethereum, you need a little ETH in the same wallet to send it. If you hold USDT on Tron, you need TRX. Without the native coin, your tokens are stuck in the wallet: they are safe, but you cannot move them until you add some.

This is one of the most common surprises for beginners, usually after withdrawing tokens from an exchange to a new wallet that holds nothing else.

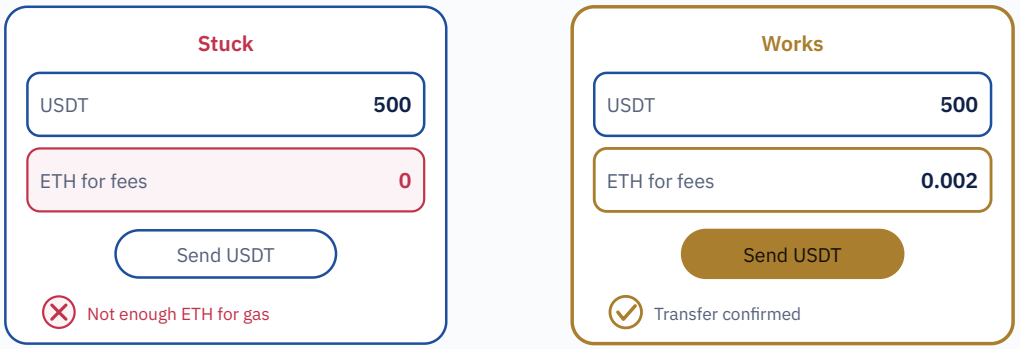


Figure 3. A wallet with tokens but no native coin cannot send them. Adding a small amount of ETH for gas solves it.

EXAMPLE: THE STUCK 500 USDT

Alex withdraws 500 USDT from an exchange to a new Ethereum wallet. A week later he tries to send it to a friend, and his wallet shows an error: insufficient ETH for gas. His USDT is fine. He only needs to send a small amount of ETH to the same wallet first, then the transfer goes through.

The main kinds of tokens

Tokens can represent almost anything. The most common kinds are:

- **Stablecoins:** tokens designed to stay at a fixed value, usually one US dollar, such as USDT and USDC. Lesson 6 covers them in depth.
- **Governance tokens:** give holders a vote on decisions about a project, such as UNI for the Uniswap exchange.
- **Utility tokens:** used to pay for a specific service inside a project, such as LINK, which pays for the data that Chainlink delivers to smart contracts.
- **Wrapped tokens:** represent a coin from another chain, such as WBTC, which stands for bitcoin on Ethereum and is backed by real BTC held by a custodian.
- **Memecoins:** tokens driven mostly by jokes, communities and hype, such as SHIB and PEPE. Despite the name, most memecoins are technically tokens.
- **NFTs:** non-fungible tokens, where each one is unique instead of interchangeable, used for art, collectibles, tickets and more.

A growing category is **tokenized real-world assets**: tokens that represent things like government bonds or fund shares, issued by traditional financial companies.

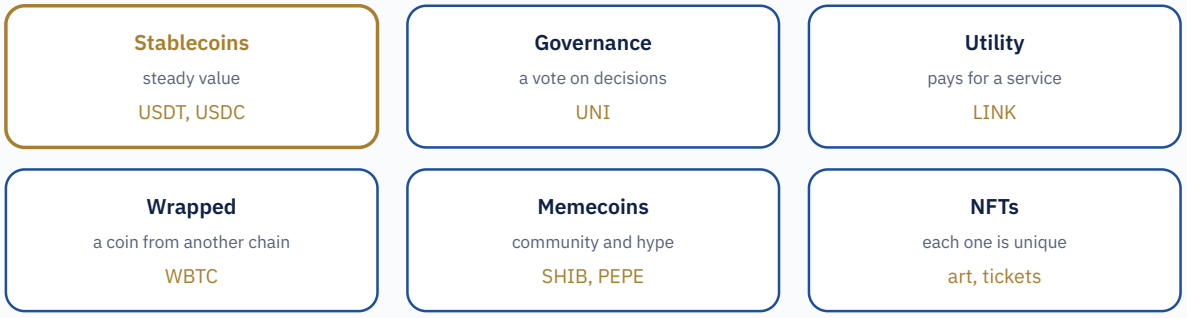


Figure 4. The main kinds of tokens, with examples.

Same name, different token: the contract address

Anyone can create a token and give it any name and ticker they like, including "Tether USD" and "USDT". The name means nothing. What identifies a token is its **contract address**: the unique address of the smart contract that created it.

Scammers use this. They create fake tokens with the same name and symbol as popular ones, send them to random wallets, or list them on decentralized exchanges. A wallet may show "500 USDT", but if the contract address is not the official one, those tokens are worthless.

To check a token:

- Get the official contract address from the issuer's own website, or from a trusted data site such as CoinGecko or CoinMarketCap.
- Compare the **full** address, not only the first and last few characters. Fake addresses are often made to look similar at both ends.
- Make sure you are on the right network. The same token usually has a different contract address on each blockchain.

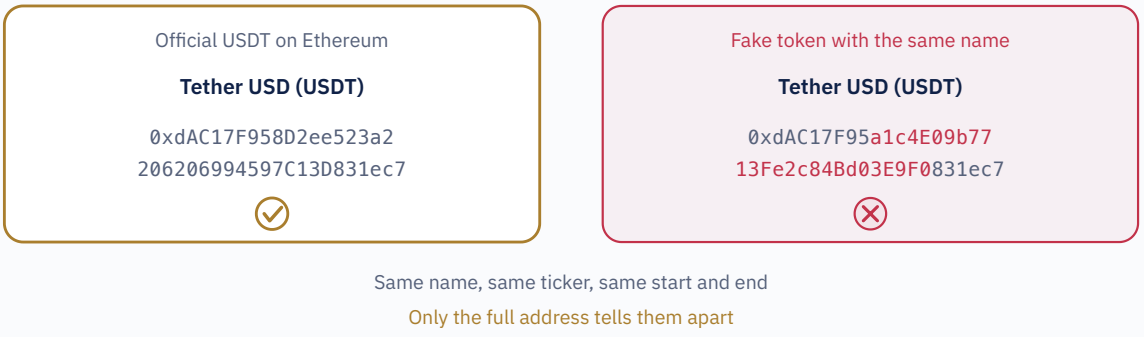


Figure 5. A fake token can copy the name, ticker and even the first and last characters of the real contract address. Only the full address proves which one is real. The second address is an invented example.

Does coin or token matter for value?

Being a coin or a token does not make an asset better or worse. Many of the most valuable crypto assets are tokens, and many coins have failed. Market rankings list both side by side.

What the difference does change is **where the risks sit**:

	Coin	Token
Lives on	Its own blockchain	Someone else's blockchain
Pays network fees	Yes, it is the fee currency	No, you need the native coin
Created by	The network's own rules	A smart contract
Main risks	The network itself failing or losing users	The host chain, bugs in the contract, and whoever controls the contract
Examples	BTC, ETH, SOL, BNB, TRX	USDT, USDC, LINK, UNI, SHIB

The last point matters more than it seems. Many token contracts give their creators special powers, such as creating new tokens or freezing addresses. Tether, for example, can freeze USDT held at specific addresses, often at the request of law enforcement. According to the security firm BlockSec, it froze about $1.26 billion of USDT across 4,163 addresses in 2025. Before you hold a token, it is worth knowing who controls it.

Why this matters for traders

- **Check the network on every deposit and withdrawal.** When an exchange lists USDT, it asks which network you want: Ethereum, Tron, BNB Chain and others. Picking the wrong one is a classic way to lose funds. Lesson 10 covers this step by step.
- **Keep some native coin for fees.** Before moving tokens to your own wallet, make sure it holds a little of the chain's native coin, or the tokens will be stuck.
- **New tokens trade on hype, not history.** Since anyone can launch a token in minutes, many new tokens have tiny liquidity and can fall to zero quickly. Check the contract address, who controls it and how much is available to trade before taking a position.
- **Issuer powers are part of the risk.** A stablecoin that can be frozen, or a token whose creator can create new supply, behaves differently from a coin secured only by its network. Price alone will not show you this.

Key terms

Coin	The native currency of a blockchain, built into its rules and used to pay its fees, such as BTC or ETH.
Token	An asset created by a smart contract on an existing blockchain, such as USDT or LINK on Ethereum.
ERC-20	The standard set of rules for tokens on Ethereum, so that any wallet or exchange can handle them in the same way.
Contract address	The unique address of the smart contract behind a token. It is the only reliable way to identify the real token.
Wrapped token	A token on one blockchain that represents a coin from another blockchain, such as WBTC for bitcoin on Ethereum.
Governance token	A token that gives its holders a vote on decisions about a project.
NFT	A non-fungible token: each one is unique and cannot be swapped one for one with another.

Key takeaways

1. A coin is a blockchain's own currency. A token is created by a smart contract on an existing blockchain.
2. A token contract is a list of balances. Sending a token just updates that list.
3. Fees are always paid in the native coin, so you need some ETH to move tokens on Ethereum, some TRX on Tron, and so on.
4. Token types include stablecoins, governance, utility, wrapped tokens, memecoins and NFTs.
5. Names and tickers can be copied. Only the full contract address on the right network identifies the real token.
6. Coin or token does not decide value, but it changes the risks, including who can freeze or create a token.

Test yourself

Circle one answer for each question. The answer key with explanations is on the next page. You can also take this quiz online at markettalks.info and see your score instantly.

1. Which of these is a coin rather than a token?

A USDT
B LINK
C ETH
D UNI

2. What does a token contract actually do when you send tokens?

A Moves a digital file from one wallet to another
B Updates its list of balances for the two addresses
C Mines new tokens for the receiver
D Converts the tokens into the native coin

3. What is ERC-20?

A A type of crypto exchange
B A standard set of rules for tokens on Ethereum
C The 20th version of Ethereum
D A government regulation for tokens

4. You hold 500 USDT on Ethereum and 0 ETH. What happens when you try to send the USDT?

A It works, USDT pays its own fee
B It fails, because the fee must be paid in ETH
C Part of the USDT is used as the fee
D The USDT is automatically sent back to the exchange

5. What is WBTC?

A A new blockchain that competes with Bitcoin
B A memecoin
C A token on Ethereum that represents bitcoin held by a custodian
D Bitcoin's smallest unit

6. Your wallet shows a token called "Tether USD" that you did not buy. What is the safest assumption?

- A It is a free gift from Tether
- B It is probably a fake token, until you confirm its contract address
- C It is real because the name is correct
- D It is a reward for using your wallet

7. How should you compare a token's contract address with the official one?

- A Check only the first four characters
- B Check only the last four characters
- C Compare the full address, on the correct network
- D Check that the name matches

8. Which risk applies to many tokens but not to a coin like bitcoin?

- A The price can go down
- B Whoever controls the contract may be able to freeze addresses or create new tokens
- C It can be lost if you lose your keys
- D It needs a network to work

Answer key

1 C

ETH

ETH is the native currency of the Ethereum blockchain. USDT, LINK and UNI are tokens created by smart contracts.

2 B

Updates its list of balances for the two addresses

The contract keeps a record of who holds how much. A transfer lowers one balance and raises another, like changing numbers on a scoreboard.

3 B

A standard set of rules for tokens on Ethereum

ERC-20 defines common functions so that any wallet or exchange can work with any Ethereum token in the same way.

4 B

It fails, because the fee must be paid in ETH

Fees on Ethereum are always paid in ETH. Add a small amount of ETH to the same wallet and the transfer will go through.

5 C

A token on Ethereum that represents bitcoin held by a custodian

Wrapped tokens let a coin from one chain be used on another. WBTC brings bitcoin to Ethereum, backed by real BTC held in custody.

6 B

It is probably a fake token, until you confirm its contract address

Anyone can copy a name and ticker. Scammers often send fake tokens. Only the official contract address on the right network proves a token is real.

7 C

Compare the full address, on the correct network

Fake addresses are often made to match at both ends. Compare every character, and remember the address is different on each blockchain.

8 B

Whoever controls the contract may be able to freeze addresses or create new tokens

Many token contracts include special powers for their issuer. Tether, for example, froze about $1.26 billion of USDT in 2025.

SOURCES

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