Crypto & Blockchain Beginner's Guide (With Links)

What is a Blockchain?

A blockchain is a decentralised, digital ledger of transactions stored across a network of computers. Each record (block) is linked to the previous one, forming a chain. This structure is immutable and transparent, making it secure against tampering.

Blockchain Explained – IBM https://www.ibm.com/think/topics/blockchain

What is Cryptocurrency?

Cryptocurrency is a digital or virtual currency that uses cryptography for security and operates on a blockchain. Examples include Bitcoin (BTC), Ethereum (ETH), and Solana (SOL).

What Is Cryptocurrency? – Investopedia
https://www.investopedia.com/terms/c/cryptocurrency.asp

Why Was Cryptocurrency Created?

To offer:

- A decentralised alternative to traditional finance

- Borderless and censorship-resistant payments

- Financial sovereignty for the unbanked

Why Were There So Many Scams?

Early excitement led to a gold rush, attracting bad actors. Scams flourished due to:

- Lack of regulation

- Anonymous developers

- Investor inexperience

Avoiding Cryptocurrency Scams – FTC
https://consumer.ftc.gov/articles/what-know-about-cryptocurrency-and-scams

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Is It Safe Now?

It's safer, but vigilance is essential. Use trusted platforms, store assets securely, and avoid too-good-to-be-true offers.

Staying Safe with Crypto – Coinbase Learn
https://www.coinbase.com/en-gb/learn/tips-and-tutorials

What is a Wallet?

A crypto wallet allows you to store, send, and receive cryptocurrency.

Crypto Wallet Guide – CoinMarketCap https://coinmarketcap.com/academy

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Recommended Wallets:

- Hot Wallets: Phantom, MetaMask, Trust Wallet

- Cold Wallets: Ledger Nano X, Trezor Model T

What is a Lending Protocol?

A decentralised application (dApp) that allows users to lend and borrow crypto.

Aave | Solend

Onramping to Solana & Why

- Buy SOL: Coinbase

- Wallet: Phantom
  Why Solana? Fast, low fees, thriving DeFi/NFT space
  Solana Docs https://solana.com/docs

Keeping Assets Safe (Cold Storage)

- Hardware wallets: [Ledger](#), [Trezor](#)

- MFA: Google Authenticator

- Seed phrases: Store offline securely
  Crypto Security Tips – Binance https://www.binance.com/en/blog

What is KYC?

Know Your Customer: ID verification for compliance
What is KYC? – CoinDesk https://www.coindesk.com/learn/what-is-kyc-know-your-customer

Capital Gains Tax Explained

You're taxed on crypto profits. Losses may offset gains.
Crypto Tax Guide – CoinTracker https://www.cointracker.io/blog/crypto-tax-guide

What is Staking?

Locking up crypto to help run a network and earn rewards.
Staking Explained – Ethereum https://ethereum.org/en/staking/

Consensus: PoW vs PoS

- Proof of Work: Energy-intensive (e.g., Bitcoin)

- Proof of Stake: Efficient and scalable (e.g., Ethereum 2.0)
  Consensus Mechanisms – Binance Academy
  https://academy.binance.com/en/articles/proof-of-work-vs-proof-of-stake

Wallet Types & Security

Wallet	Custody	Hot/Cold	Pros	Cons
MetaMask	Non-custodial	Hot	Easy to use	Phishing risk
Coinbase Wallet	Custodial	Hot	Convenient	No key ownership
Ledger Nano X	Non-custodial	Cold	High security	Less convenience
Paper Wallet	Non-custodial	Cold	Offline, no cost	Loss/damage risk

CEX vs DEX

Feature	CEX (e.g., Binance)	DEX (e.g., Uniswap)
Custody	Platform-controlled	User-controlled
Fees	Lower (high volume)	May be higher
Liquidity	High	Varies
Risk	Centralized failure	Smart contract vulnerabilities

Binance | Uniswap

On/Off Ramps & Bridges

- On-Ramps: Coinbase, MoonPay

- Off-Ramps: Kraken, Binance

- Bridges: Portal, Wormhole

Gas Fees & Minimising Costs

Why do they vary?

- Usage spikes

- Blockchain design

Strategies:

- Use Layer 2: [Arbitrum](#), [Optimism](#)

- Batch transactions

Evaluating Crypto Projects

Metrics:

- Tokenomics

- Team (LinkedIn)

- GitHub: [github.com](#)

- Audits: [DeFi Safety](#)

- Sentiment: Twitter, Discord

Crypto Risks

- Smart contract bugs

- Rug pulls

- Exchange hacks

- Regulatory changes
  Crypto Risks – SEC https://www.sec.gov/

Best Security Practices

- [Ledger](#), [Trezor](#)

- Never share seed phrases

- Use 2FA

- Recognize phishing

Tax & Legal by Jurisdiction

- IRS Crypto FAQ – USA

- Revenue.ie – Ireland

- EU: Varies – consult local regulations

Monitoring Crypto Holdings

- Trackers: CoinStats, Zapper

- Explorers: Etherscan, Solscan

- Alerts: Blockfolio (now FTX App), CoinGecko