SHA256 Hash:

Hash: A hash is a “fingerprint” of specific data

Block: Blocks are

Nonce: A number that is assigned to the block and is only used once. This number is encrypted into a block within a blockchain. A nounce is the number that miners are solving for, once solved miners are rewarded cryptocurrency.

Block has block # and hash. Every block’s hash should match should with it’s nounce. Once these match we have a signed block

Each block points back to the previous block’s hash. Anything changes in a block is carried over to all next blocks, hence invalidating them

The more blocks the harder it will be to make changes, especially if changes are meant to be earlier in the blockchain

Blockchains contain data i.e. tokens

Ethereum blockchain:  
Basically data and nonce give you an encrypted hash number.

So computers solve your hashed value, they then assign a nonce, your nonce will then be cross referenced to check if it is below a specific number, if yes then you found your block.

Block time: Time it takes to run different hashes till we find the value we’re looking for

Ethereum network has a target blocktime of 15 seconds

The difficulty in which a hash is calculated is adjusted according to how much (/many) computing power is available. Less CPU = less power

<https://etherscan.io/chart/blocktime> How much average time it takes a Ethereum transaction to complete