

Explore the Chain – Using a Blockchain Explorer

Blockchain Explorer?

A **Blockchain Explorer** is a web-based application that acts as a search engine, window, and analytics tool for a blockchain. Think of it as the "Google for blockchains."

A blockchain is a public, digital ledger that records all transactions. This ledger is transparent and immutable, meaning anyone can view it, and once data is added, it cannot be changed. A Blockchain Explorer takes the raw, complex data from the blockchain and presents it in a human-readable way.

Key things you can do with a Blockchain Explorer:

- **View Transaction Details:** Check the status, amount, sender, and receiver of any transaction.
- **Inspect Blocks:** See the list of recent blocks added to the chain, the transactions they contain, and the fees paid.
- **Check Wallet Addresses:** Look up the balance and transaction history of any public wallet address.
- **Monitor Network Health:** See data like network hash rate, transaction volume, and mempool size (unconfirmed transactions).
- **Verify Data:** Confirm that a specific transaction has been included in the blockchain and is considered final.

Step-by-Step Procedure: Using a Blockchain Explorer

For this guide, we'll use the **Bitcoin blockchain** and the popular **Blockstream Explorer** as our example. The steps are very similar for other blockchains (like Ethereum, which you would explore using [Etherscan.io](https://etherscan.io/)).

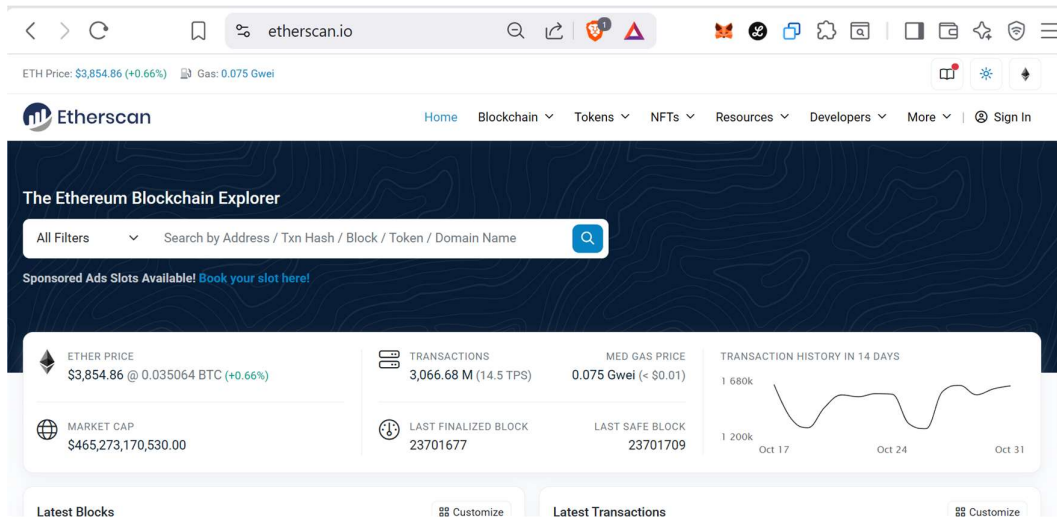
Goal: We will look up a famous, historic Bitcoin transaction: the "Bitcoin Pizza Transaction," where a programmer paid 10,000 BTC for two pizzas.

Step 1: Choose a Blockchain and Its Explorer

- **Blockchain:** Bitcoin
- **Explorer:** We'll use **Etherscan Explorer**. You can access it here: <https://etherscan.io/>
- **Step 2: Understand the Homepage**

When you land on the etherscan.io homepage, you'll see:

- A **search bar** at the top.
- A list of the **latest blocks** (the most recent pages added to the ledger).
- A list of the **latest transactions** (pending and confirmed payments).



Step 3: Search for a Specific Transaction

We will search for the famous pizza transaction using its unique ID, known as a **Transaction ID (TxID)** or hash.

1. Copy the following TxID:
0x8ABCe56534cAEDea4C3F6469a73E0C03b7560101
2. Paste the TxID into the search bar at the top of the Etherscan Explorer and press **Enter**.

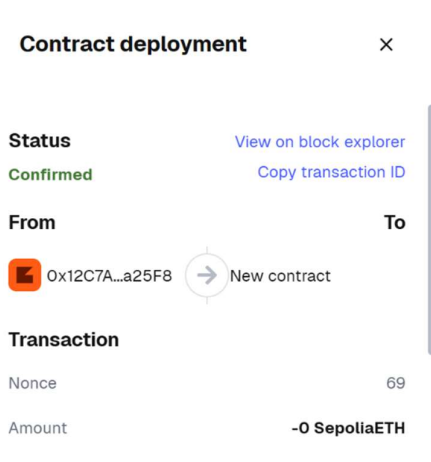
Step 4: Analyze the Transaction Details Page

You will now be taken to a detailed page for that specific transaction. Let's break down the key information you'll see:

- **Transaction ID (TxID):** The unique hash that identifies this transaction. It's like a receipt number.
- **Status:** This shows how many **confirmations** the transaction has. A confirmation means it has been included in a block. The more confirmations, the more secure and irreversible the transaction is. For the pizza transaction, this will be a very high number (over 800,000+).
- **Timestamp:** The exact date and time the block containing this transaction was mined.
- **Inputs (From):** This section shows where the funds came from. It will show one or more addresses and the amount of sepolia they sent.
- **Outputs (To):** This section shows where the funds went.
- **Fee:** The amount paid to the miner to include this transaction in a block. For this old transaction, the fee was negligible.

Demonstration

1. Go to your Metamask wallet and search for any transaction and click on 'view on block explorer' :



2. You will be able to see every activity and information about that transaction on the Etherscan Explorer:

