

Financial Literacy with Mr. 401(k)  
[‘FinLit with Mr. 401(k)’]  
Winter Term 2023-2024  
January 25, 2024

# Digital Assets: Bitcoin Class 19: Using Bitcoin; Business Plan Project



# Recap: How to Get Bitcoin or Satoshis



## **Buy**

Bitcoin from a broker, cryptocurrency exchange, payment service, or person



## **Mine**

Bitcoin using specialized computers



## **Receive Gifts**

of Bitcoin or Satoshis from family or friends



## **Trade**

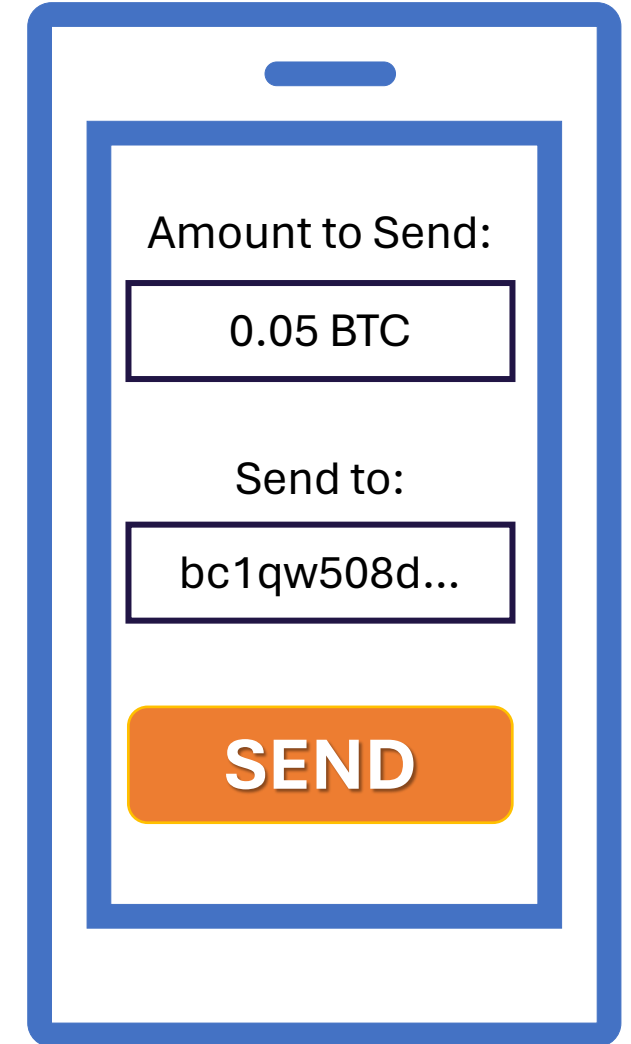
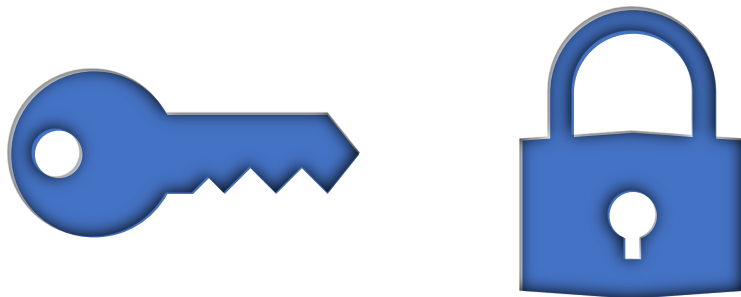
goods, services, or information and ask to be paid in Bitcoin

# Anatomy of a Bitcoin Transaction (1 of 5)

1

## Own Some Bitcoin

Custodians control the private keys to Bitcoin in their custody. Just like a key is needed to unlock a physical lock, a private key is needed to unlock the transfer of Bitcoin from one digital wallet address to another.

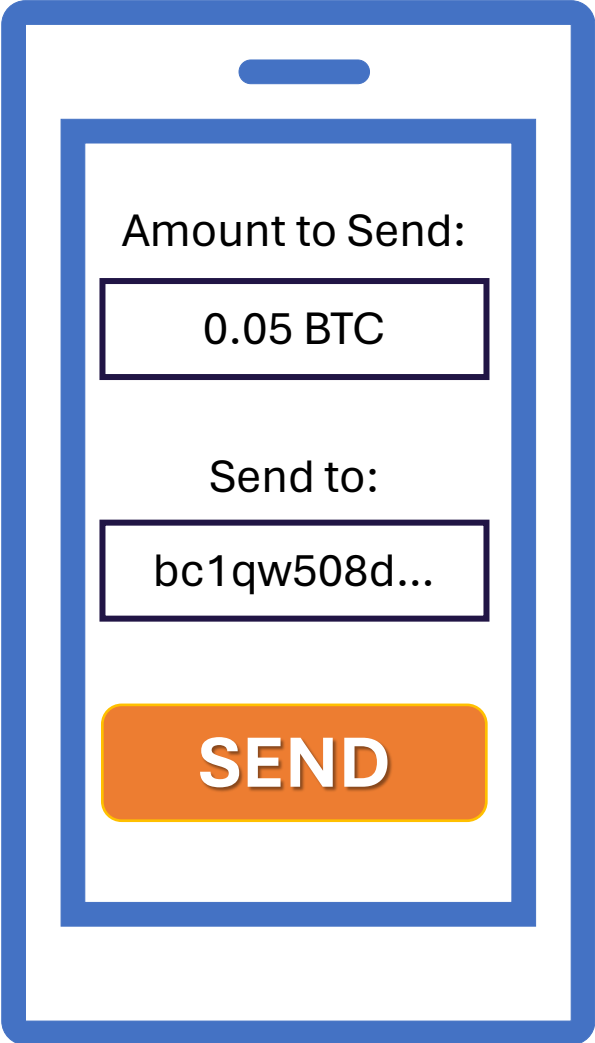
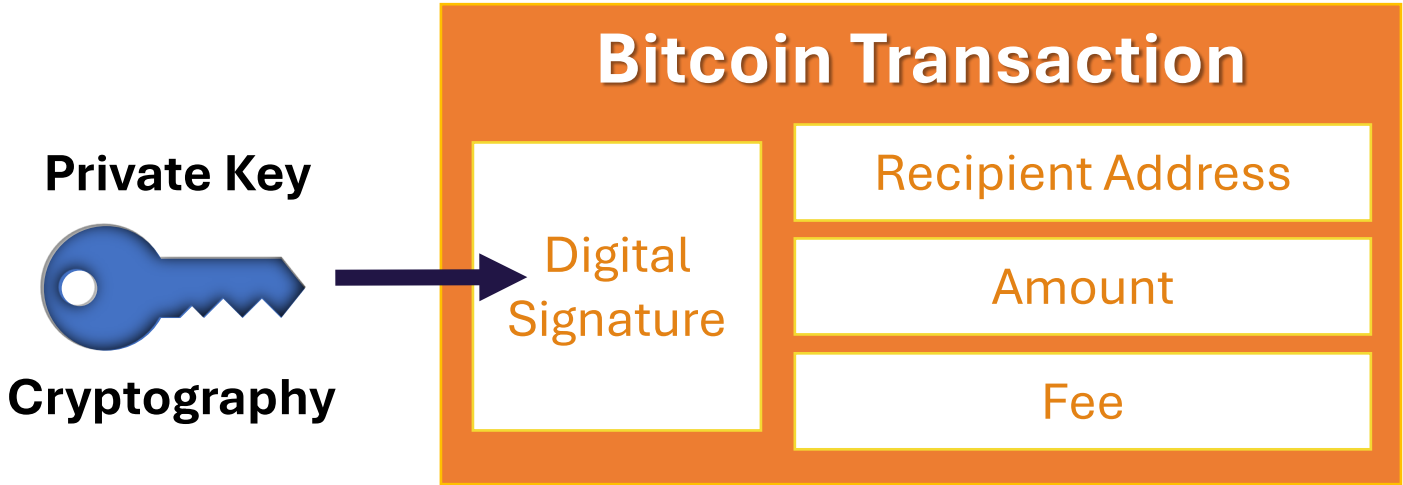


# Anatomy of a Bitcoin Transaction (2 of 5)

## 2

### Transaction Generation

A digital signature is created from the private key, proving custody of Bitcoin and authorizing the transaction, **without revealing the private key.**

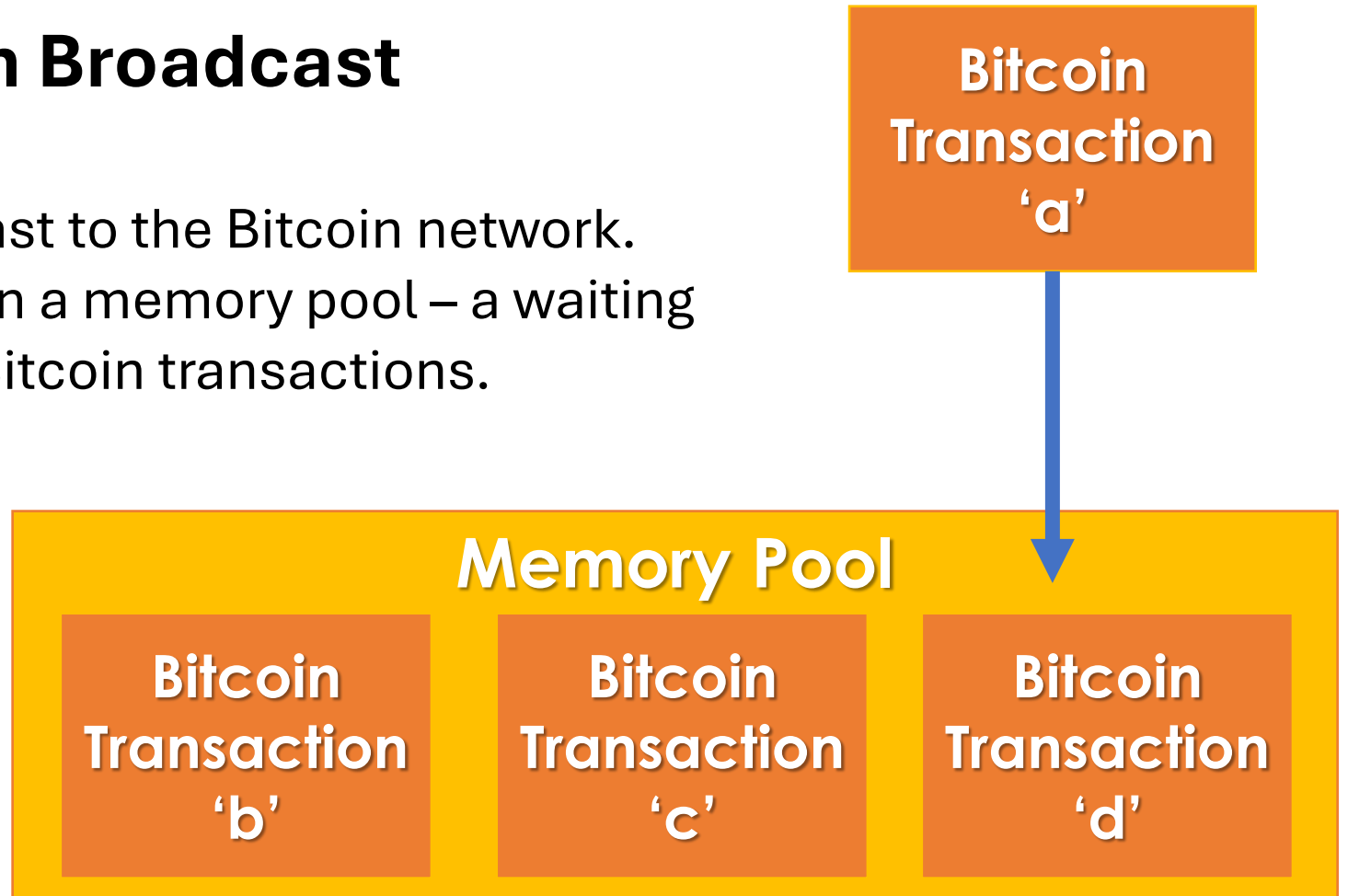


# Anatomy of a Bitcoin Transaction (3 of 5)

3

## Transaction Broadcast

The transaction is broadcast to the Bitcoin network. The transaction is staged in a memory pool – a waiting room with other pending Bitcoin transactions.

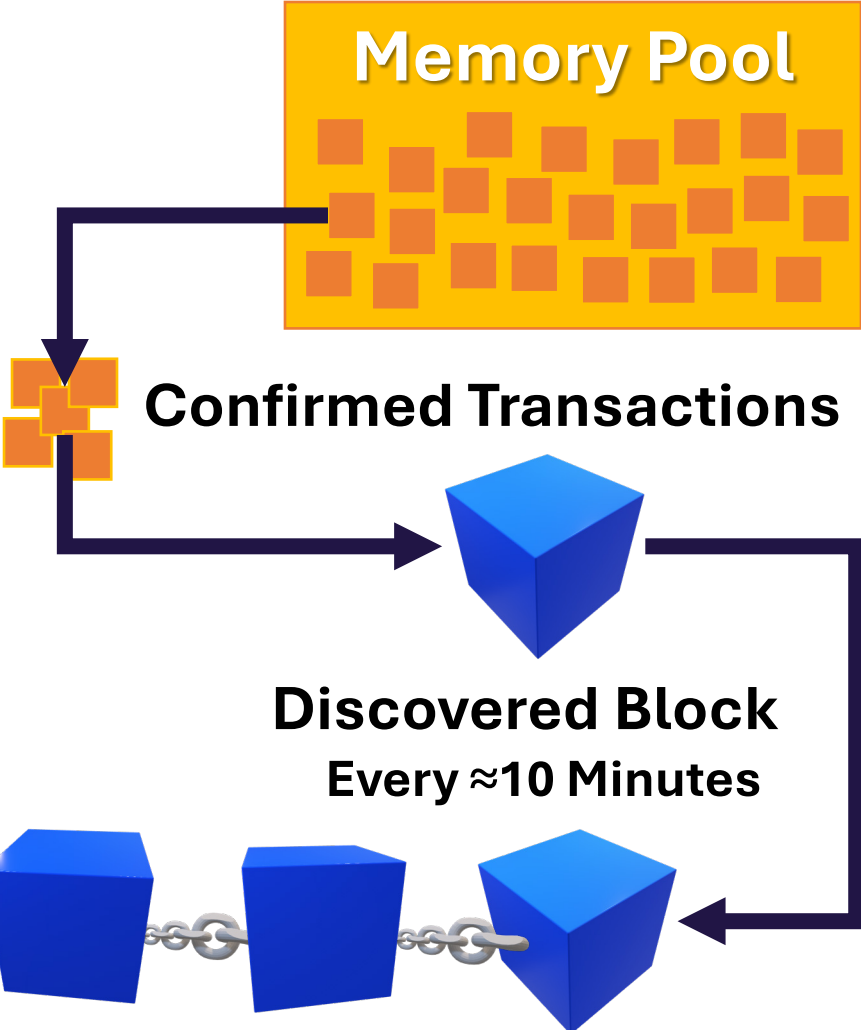


# Anatomy of a Bitcoin Transaction (4 of 5)

## 4

### Transaction Confirmation

Pending transactions are pulled from the memory pool, confirmed into a discovered block, and the discovered block recorded on a permanent public ledger called a blockchain.



Bitcoin Blockchain - Permanent Ledger



*Class Discussion*

*Which memory  
pool  
transactions do  
you think  
Bitcoin Miners  
prioritize?*

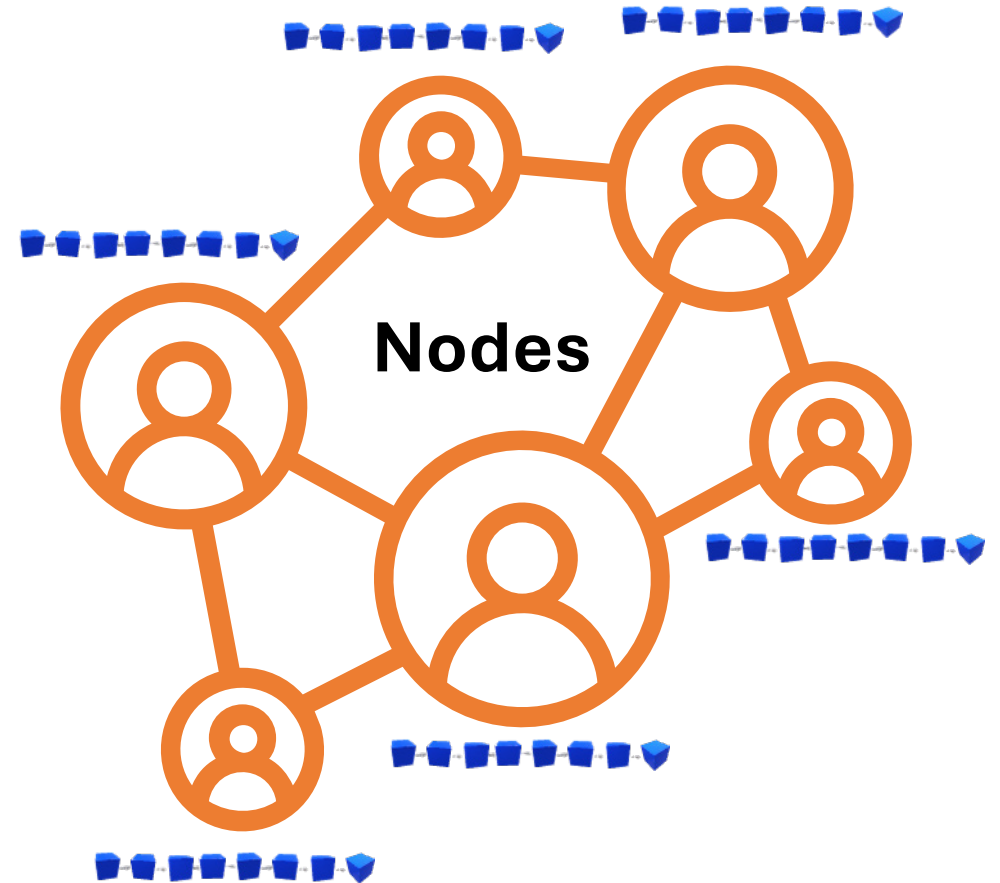
# Anatomy of a Bitcoin Transaction (5 of 5)

5

## Distributed Ledgers

A node is a computer running open-source Bitcoin software. Each node in the network has an exact copy of the Bitcoin Blockchain. When people say a “blockchain is a distributed ledger,” this is what they mean.

16,874 Bitcoin Nodes\*



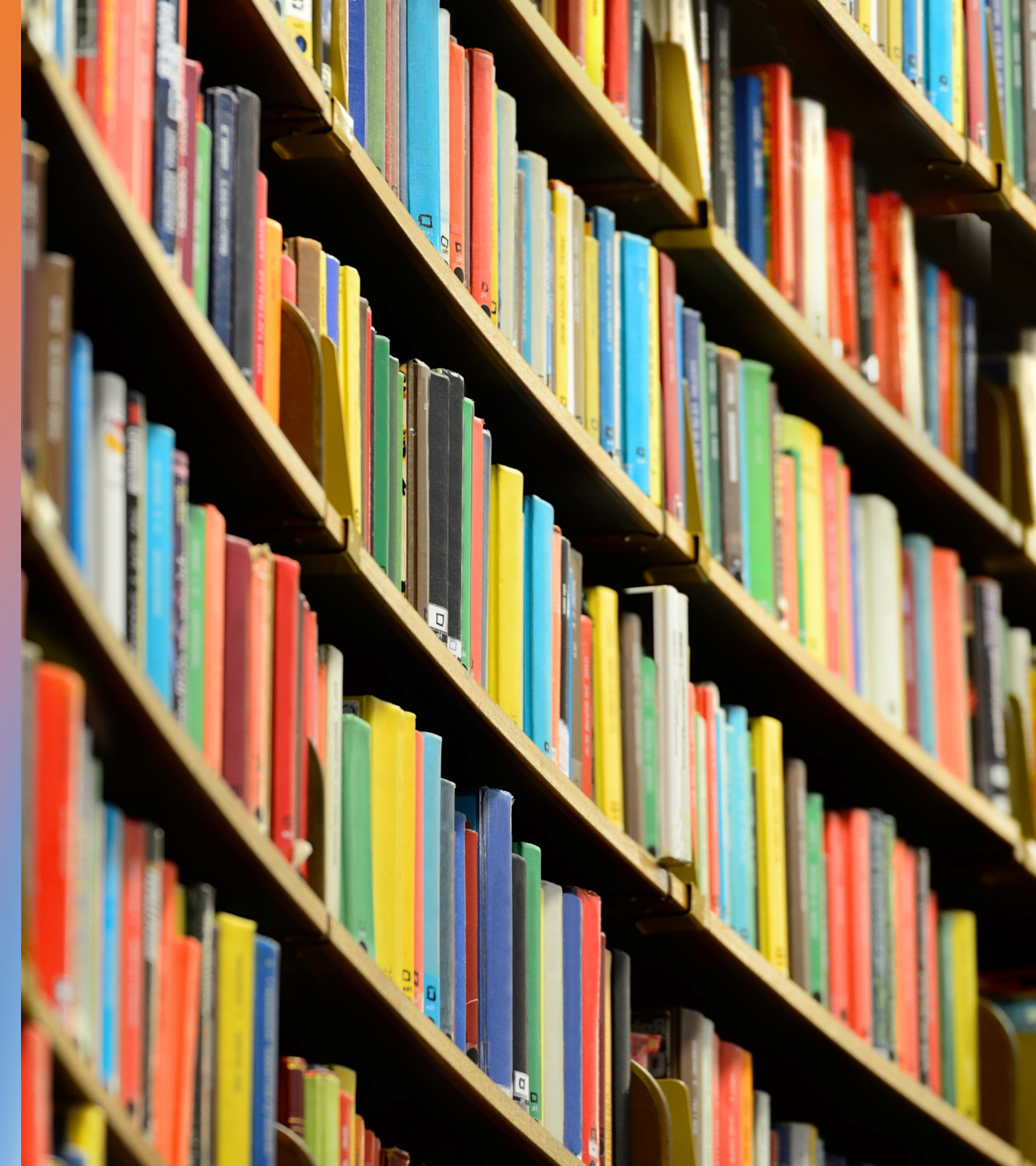
\*<https://bitnodes.io> as of January 24, 2024





# Three Key Takeaways

1. Bitcoin transactions are staged in memory pools before they can be confirmed by miners.
2. Miners generally prioritize transactions willing to pay the highest network fees.
3. On average, Miners confirm a new block of transactions every 10 minutes and, once the transactions block is added to the blockchain, the transactions are virtually impossible to change.



## Where to Learn More

- [Bitcoin Education](#) by Petros Koumantaros
- [Bitcoin Money: A Tale of Bitville](#)  
[Discovering Good Money](#) by Michael Caras (Author), Marina Yakubivska (Illustrator)
- [The Bullish Case for Bitcoin](#) by Vijay Boyapati



**Business Plan  
Project**

# Business Idea & Business Plan Project within Money Mavericks Groups



## **Develop Business Idea**

What problem does your business solve? Who are the business's target customers? **[Completed]**



## **Write Business Plans**

How does the business earn money? What are the ongoing costs? How will it differentiate?



## **Present Your Business Plans**

Each Money Mavericks Group gives a 10-minute presentation of their business plan to class

# Business Ideas by Money Mavericks Workgroup



**Alpha**

Babysitting /  
Childcare  
Services



**Beta**

App that  
Recommends and  
Markets Books to  
Users



**Gamma**

Online Sales of  
Sporting Apparel  
& Goods,  
Focusing on  
Footwear



**Delta**

Digital Content  
Creator AI  
Support

# Money Mavericks

**Objective:** Start writing your business plans within your Money Mavericks Workgroups. As a guide to help write your business plans, focus on answering the questions on the following practical applications slide. I suggest assigning each question to a person in your workgroups.



# Practical Application



- What is your business name? Feel free to design a logo for your business.
- Who are your business's target customers?
- How does your business earn money?
- What are your business's products and/or services?
- What are the costs to start your business?
- Where will your business's startup costs come from?
- What are your business's ongoing expenses?
- What are the prices for your business's products and/or services? How did you determine those prices?
- How will your business promote its products and/or services?
- Write a "pitch" that describes your business to a target customer.
- Who else competes with your business?
- How will your business differentiate itself from competitors?