

Block Validation Process

Heading:

"How Blocks Are Validated on MST Blockchain"

Subheading:

"From transaction to final block – secure, fast, and transparent."

Visual/Animation Idea:

- Animated line connecting **User** → **Validator** → **Blockchain** icons.
- Coins moving along the line as transactions.

Section 1 - "The Backbone of MST Blockchain"

Content (short lines for easy reading):

- Every transaction must be checked before joining the blockchain.
- Validators are trusted nodes that do this verification.
- Once approved, transactions are grouped into a block and sealed forever.

Animation Idea:

- Floating block cubes stacking into a chain.
- "Lock" icon appearing when a block is finalized.

Section 2 - **MST Chain : Consensus Mechanism (PoSA)**

Heading:

"Proof of Staked Authority: Speed Meets Security"

Content Points:

- Combines staking (Proof of Stake) + identity verification (Proof of Authority).
- Only selected validators create blocks.
- Selection is based on stake, performance, and reputation.

- Ensures **3-second block time** and **low fees**.

Animation Idea:

- Validator avatars lighting up one by one in a ring, showing selection process.
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Section 3 – The Block Validation Journey (*Animated Timeline*)

Heading:

"Step-by-Step: How a Block is Born"

Timeline Steps:

1 Transaction Submission

User sends transaction → goes into pending list (mempool).

2 Validator Selection

System picks the validator for this block.

3 Transaction Verification

Validator checks balances, signatures, and smart contract results.

4 Block Creation

Valid transactions are bundled into a new block.

5 Block Broadcasting

Block is shared with all validators for confirmation.

6 Finalization

Block is added to the blockchain and can't be changed.

Animation Idea:

- Horizontal scroll with each step animating in (icons + short text).
 - Coins traveling through each stage.
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Section 4 – Rewards for Validators

Heading:

"Why Validators Participate"

Points:

- **Block Reward:** 200 native coins per block.
- **Transaction Fees:** Earn fees from included transactions.
- **Reputation:** Maintain a trusted position in the network.

Animation Idea:

- Coins raining down on validator avatar after block finalization.
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Section 5 – Security First

Heading:

"Trust is Built Into Every Block"

Points:

- Double-spending is prevented by consensus rules.
- Misbehaving validators can be removed or slashed.
- Decentralization ensures no single point of failure.

Animation Idea:

- Shield icon surrounding a block, glowing when secure.
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