

Mining and BIP-39 17-10-2025

A miner is a participant in a proof-of-work cryptocurrency network (like Bitcoin) whose job is to collect, verify, and bundle transactions into blocks. Miners run specialized software and hardware to solve cryptographic puzzles — finding a nonce that makes a block's hash meet the network's difficulty target. The first miner to find a valid solution broadcasts the block and, when accepted by the network, earns a block reward and transaction fees. Mining secures the blockchain by making it costly to rewrite history: an attacker would need enormous computation to outpace honest miners.

BIP39 (Bitcoin Improvement Proposal 39) is a standard for generating human-readable mnemonic phrases (seed phrases) from entropy and converting them into a binary seed used to derive deterministic wallets. A typical BIP39 mnemonic is 12–24 English words chosen from a fixed wordlist. That mnemonic can be turned into a master seed with an optional passphrase, and from that seed hierarchical deterministic (HD) wallets (BIP32/BIP44) derive all private keys and addresses. BIP39 makes backups easy: instead of storing many private keys, users store a single phrase.

How they intersect

Miners and BIP39 live in different layers of the crypto stack: miners secure and extend the blockchain, while BIP39 concerns wallet key management for users and applications. A miner doesn't need BIP39 to function — mining nodes validate transactions and blocks, they do not hold mnemonic phrases on behalf of the network. Conversely, BIP39 is crucial for end-users who hold funds on a blockchain that miners secure: if a user's mnemonic is lost or stolen, the security provided by miners is moot because the attacker can spend funds on-chain.

Security and best practices

- Treat your BIP39 mnemonic like cash: store it offline (paper or hardware wallet backup), ideally in multiple geographically separated secure locations.
- Use an additional passphrase (BIP39 passphrase) if you understand its trade-offs — it increases security but also raises the risk of permanent loss if forgotten.
- Never enter your mnemonic into untrusted software, web pages, or chatbots.
- For miners who run wallets to collect rewards: prefer hardware wallets or dedicated, well-secured key management for reward addresses; keep mining infrastructure patched and isolated from wallets when possible.

bip39-phrase.com – 2025

Seed Phrase **BIP-39** Table

quality enable witness august below brush derive cover squirrel leisure among phrase	animal pool write earth cause cattle olive combine breeze novel dignity corn
crew defense alien autumn salmon toward gospel artwork buddy grow spare decline	plastic resource fence repair laundry practice oak leader chapter mention glide panic
member fever actor chronic mistake capable shaft snow copy wreck draw era	sad direct gentle bring social talent second cupboard bus silly angle early
estate void story primary affair much album disease nasty beef spice person	funny frost jump soccer glimpse canal absent diary marriage light gown atom
hub end agent link wish assume tortoise tower regret seven emotion amateur	inch carbon decorate trial venue simple head ramp account sword forward between
surge old card suspect raise space film believe envelope charge amazing stadium	sorry ordinary cable beyond cereal road throw wide dwarf actress focus worry
step utility magic doll identify finger achieve paper clump dad quiz please	script captain success sustain stone when cup round cluster square domain orphan
involve duty deny solution inherit walk genuine prize horse display energy broom	outdoor sight ranch clean destroy gather bachelor goat crater outside push exercise
ship tray piano obtain equip scheme country entry trumpet okay similar truck	anxiety voyage female climb expect stove reason resemble lens equal athlete garage
clever salad current donkey couple obvious kangaroo echo wrestle open brief flock	theory brass lady aspect wage fancy grocery fossil roast angry lyrics what
answer burden network logic obey demand roof since grain save cargo lab	sniff fringe diet crowd royal shadow surface police confirm remember crash purpose
feed humble baby tape cute exit float also child pet clock power	debris item alley ketchup brave need modify math scare myself decrease perfect
subway cloth example wool pen act engage provide critic puzzle spatial payment	man series wave popular artist abuse inhale filter off firm erosion cube
egg sound adjust scene sausage motion frown canoe because balcony employ add	found enough output rough force dutch foster patrol dizzy narrow silver illegal
imitate will differ jaguar width slogan picnic cement program casino dry warrior	net inner survey dragon penalty own brown measure often betray arena arrive
cat crime voice cushion tomato hip spoon tragic clinic blouse mechanic rather	remove sponsor elegant rally cliff nut moral fish right wine curve process
chalk online tribe boat safe neutral traffic great tank slam pumpkin electric	height hole icon purse naive list observe travel nice pyramid test fun
dawn party sheriff cream abstract salute monkey shuffle bonus river else sign	smoke owner ready assault proud oven panel gold crazy under gap cactus
gloom invest chunk alert vital sunny small zone crystal flash wasp clay	dumb hold world find glance industry dish tornado type blade now fine
inquiry before coast kingdom two calm blossom reduce spike ridge accident rotate	situate liberty liquid fit blanket kitten pattern cricket immense like quit basic
snake expand enact leg pipe business join dash protect reform fragile whip	pair area rose denial fox already insane pause foam lobster report mail
art milk congress alone solve ask spy gaze vacuum federal case ribbon	original recycle distance harbor reflect boost magnet tattoo toddler swim pull hello

minimum monitor mad armor guilt strike beach chaos amount order law burger	wash young joke flame photo trip book security lazy such blast furnace
wing reward alcohol vast few dress clown table range collect weekend fortune	hospital empty income fetch you front level glove ability embrace material priority
awesome dirt double gossip undo stay where million opera retire venture lizard	thunder gadget poem scout various tumble lecture tuition tennis any window maximum
lesson economy lonely prevent jelly amused shock humor balance bird east panda	february trim truly garlic trend axis senior hint acquire coil tuna west
pelican aerobic town kitchen ignore body despair motor zebra more group maid	exchange pulse garbage battle unfold genre sock comfort lift opinion slight inmate
train slice swallow tomorrow violin bone tourist wise scissors produce hidden universe	fault special unique flower hunt essence unable outer media just meadow carry
chair learn run night shallow lock twist risk glow vendor best input	prepare lava ill ivory smile mountain capital brand unfair soon patch hen
mirror song upgrade virtual legal zero ball crumble try rug keep again	attitude fly deposit depend tone village festival museum search walnut rack juice
gift coyote aisle faint exist antenna hover lounge wear jeans someone speed	taste sure alarm major submit desert stable fruit supreme sweet turn dune
half diamond prosper toss slow moment bread model mansion ritual solid claim	play unhappy scrap explain drama shy wealth huge rescue machine into mushroom
evidence drill engine trophy deer layer away knife couch common panther napkin	bridge cinnamon cloud clutch soup gauge wheel average youth swear impulse meat
pact cash daring steak shiver note split dose trash trade remind vote	ginger eyebrow depth hope steel stock possible grab flee shift pupil veteran
fluid gun exile gesture digital sketch refuse toe day glory student buzz	require metal excuse finish brick pioneer merry copper stick lemon poverty gasp
camera apple office cry rapid wall fuel damp replace oval foot spray	future cancel eternal vicious uncover horror swap cannon south private whisper delay
able injury correct result bid enter plate anchor negative kid genius proof	spin loud skill coffee used gorilla device initial arrest artefact come polar
brain hurdle time antique twin figure never rich cabin trouble garment wrist	fire lamp ten one robot tube exact clog guess pigeon loop route
forget agree draft insect leave divide riot image dinosaur viable swift victory	cook cheap arch immune squeeze mixed usage course interest peasant upon behave
shrimp apology detail erase kiwi tent yellow car patient jacket casual fiscal	client resist easily dismiss high clap aunt chimney hill unlock tired silk
pink soda rigid awkward tree eager donate inform salon control culture jar	call elder drum dinner ring craft cool habit maple upset legend mass
reveal grass city track offer recipe wisdom myth cycle slim useless enemy	rent welcome number goose smooth ozone hockey bamboo scorpion session month flip
share bind tag rule consider rabbit segment expire sauce place mosquito school	weapon flush shoot carpet worth pig defy summer muscle video food ensure
crush ahead typical bunker season phone then educate sample that edge click	volume random pledge airport notice response drive tiny rival increase census slab
plunge decade author globe melt appear clarify secret green decide task prison	hedgehog crack afraid rifle van teach inflict uncle post weasel behind emerge

escape actual kit advance wheat urban menu comic bleak park family scan	vault whale gain unveil sister urge oxygen sand fantasy staff effort silent
vapor aware slush isolate execute buffalo glass satisfy shield system stumble title	purchase latin lawn quote state tilt journey twice parade feel absorb toilet
inside arrow satoishi wire mutual cruise fitness conduct spider awake wrong later	assist grunt uniform relax misery price morning stuff belt duck heavy infant
camp sleep neglect wife another team cabbage column version grant fog false	stereo unaware powder library matrix erupt club install poet rural nation maze
elephant sunset paddle champion people shed fabric symptom life drop ice jungle	ride tackle kidney ghost puppy coconut cost kind start zoo make basket
piece wrap scatter three catch jazz bulk devote cherry hat beauty job	avoid move say age enhance foil barrel warfare truth mango hard valve
page melody near struggle island nature obscure toast trigger skull scrub ski	letter farm shop awful wolf middle burst sphere ceiling cave grief spirit
define mercy mesh suit pond discover reject drastic cruel supply point surprise	hollow heart army predict box deputy deliver margin select occur drink better
erode floor velvet castle describe muffin renew want eight mean limb labor	face hire doctor uphold shine grid option desk unknown analyst release honey
clerk nuclear omit lake notable suffer radar almost blind caution sort can	boring usual celery retreat elbow black guide room planet parrot taxi problem
remain little empower butter present buyer wood path auction advice setup bar	verify fan volcano indoor anger goddess subject diesel drip hour sense extra
keen spell mimic pave tonight chuckle episode way word short left lunch	next rebel govern tenant slender become change music core strong crawl skin
region vehicle view reopen above question speak knock turtle talk concert bag	monster harsh brother december miracle endless barely record flat warm exotic birth
peace loyal board coral bright slot lottery custom blood luxury disorder hobby	wagon stairs rice impact today chest divorce index border impose favorite market
permit boss weird grace eye mandate dance race fat innocent nothing mixture	weather strategy snack arctic deal public neither orange side size luggage host
print pole attend tide stand stem asset there coach noble peanut sing	object auto wonder ancient enrich design main manage gas sting human miss
raw attack merit must shrug idea tissue organ general candy busy hand	fee crucial glue spend daughter term punch skate unusual multiply blue ripple
nephew check code spread wink grit robust dog intact bacon trick build	holiday illness trust addict cake close pretty mule fold recall rely exhibit
rate mix property north wild runway faculty guitar very eagle across guard	soul crisp twenty seat thank manual ugly midnight curtain april vintage father
home umbrella language repeat unit bean section nose siege together vessel pepper	horn sadness stamp catalog lumber once banana embody cart excess noodle husband
pride enforce fatigue always neck crane lion dynamic century flag spot transfer	knee fashion text quarter winter bicycle around extend cross only error crouch
snap evoke moon coin reunion praise divert hungry giraffe bitter cram mom	they review marine mother chat target acid dial base visa symbol palace
afford convince argue alpha avocado audit this lend pear wet profit tunnel	fiction rubber pottery upper benefit thought asthma exclude frequent trap grape thumb

acoustic allow stage year nest token claw first surround style address category	begin science use thrive sugar laugh normal hurry invite medal other hawk
rookie relief stool frog sun pudding pilot bomb top choice absurd oil	chef mammal earn virus seed company pill match happy slide october attract
key swamp sport bottom twelve rocket rare kiss galaxy work judge sudden	all biology plug include hood vocal receive syrup idle matter pizza harvest
soap citizen dentist leopard junk lucky quick ethics theme fury gate sentence	rude picture yard joy chicken project evolve door useful toy fall enroll
odor nurse tool fresh exhaust seminar bracket six follow inspire minute scale	elevator update pitch frame orient rebuild bronze approve thing dilemma abandon detect
load jealous good develop message win forum return service garden bulb onion	cradle vibrant civil minor blur have real chase super mind circle drift
long treat budget razor noise crunch method sibling pass waste embark tip	degree churn cigar credit annual loan bench gallery file settle aim junior
adapt source hybrid shove pluck rail hair choose easy rib fatal liar	shoe spring vanish vague bundle dice fade edit pistol document limit timber
famous caught dream hero adult helmet still kite news raccoon express hundred	render canyon shoulder web ankle saddle dolphin same vivid woman torch cousin
sea damage broken announce indicate love oblige tongue gravity total valid movie	friend banner seek smart hammer wait boil donor swing hamster tell blush
license siren topic essay quantum dove girl giggle ticket soft bargain during	enlist entire until hazard ocean demise alter sell certain turkey nominee enjoy
debate brisk street large rhythm visual promote bullet prefer soldier mouse nerve	broccoli tobacco final name gym flavor danger live purity skirt game tail
regular admit over march improve curious orbit diagram elite label fiber bounce	tooth element access length know lunar depart arm visit glad master about
bubble forest action kick sail ostrich suggest vacant issue raven memory pencil	pulp color merge feature laptop crop accuse glare connect oyster hurt creek
orchard solar mobile spawn parent history evil spoil lawsuit put borrow ladder	rain cheese valley health chief faith portion blame pony radio position swarm
leaf apart salt fame armed flight disagree help screen mystery frozen cage	local arrange field inject marble olympic physical bike giant boy winner hotel
clip topple excite tiger either fix oppose fork potato verb romance endorse	air iron stomach canvas wedding dust ecology give bless expose shell palm
jewel cotton true mask badge water switch sick target depart soul grace	