XRPL EDUCATION MONTH 2026

Staff Training Guide for *Astro Bear's* XRPL education sites

A facilitator handbook for organizations that want to train staff to teach with Walk the Ledger, Ursa Ledger, and Live Sky. It is written so a program lead can hand it to a new instructor and run a session the same day.

VERSION 1 | NOVEMBER 13, 2026 | EASTERN TIME | TESTNET ONLY | PLAY MONEY ONLY

This is not an official XRP Ledger Foundation document. These sites are fan-made educational materials created by Astro Bear during #XRPEducationMonth 2026. They are not affiliated with, approved by, or endorsed by the XRP Ledger Foundation or any regulator. Facts on the lesson pages are written to match **xrpl.org**. Always confirm protocol details there before you teach a number that can change, such as a reserve.

Nothing in these sites or in this guide is financial, investment, legal, or tax advice. The games use play money with no value, on the XRP Ledger testnet only.

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1. Purpose and who this is for

This guide helps a school, a company, a community group, or an organization such as the XRP Ledger Foundation train its staff to teach with Astro Bear's public education sites. It assumes the facilitator may be new to the XRP Ledger, and that learners may be new to blockchains.

Use it to:

- Plan a 30, 60, or 90 minute session.
- Know which live page or game matches each topic, without inventing features that are not on the sites yet.
- Walk a group through a real testnet transaction, including how to open a memo on **testnet.xrpl.org**.
- Repeat the same safety rules every time: testnet only, play money only, never share a seed, never put birth data on the ledger, and no financial advice.

The classroom lives in three public sites:

Walk the Ledger

xrpl.astrobear589.com is the story and the lesson lab. It covers consensus, fees, accounts, tokens, payments, NFTs, the sky lab, the arcade lesson, weekly challenge, and short episodes.

Ursa Ledger

arcade.astrobear589.com is the game world. It holds the education games, the on-ledger leaderboard, the legal notice, Terms and Privacy, and Coming Soon cards for later builds.

Live Sky

sky.astrobear589.com is the live sky wheel. A daily ephemeris snapshot is written to the XRPL testnet. Use it as a clear example of public data in a memo.

Staff should read this guide, accept the Ursa Ledger legal notice when they enter the arcade, and complete at least one hands-on explorer exercise before they teach a group.

2. Learning objectives

By the end of a full 90 minute session, a staff member should be able to:

- Explain, in plain words, what the XRP Ledger is, how validators reach consensus, and why a transaction fee is destroyed rather than paid to anyone.
- Describe an account, a reserve, and a sequence number, and point to the matching chapters on Walk the Ledger.
- Explain what a memo is, why it is public and permanent, and what must never go in one.
- Open a testnet transaction on the explorer, find the memo, the fee, and the ledger index, and check those facts against a "What just happened?" card or a lesson example.

- Tell the difference between a Payment that carries a score memo and an AccountSet that carries a sky or ephemeris memo.
- Describe, at a high level, how an NFT offer works on the XRP Ledger, including why the recipient has to approve it.
- Explain a trust line and why issued tokens are not the same as XRP, and be honest about which later arcade features are still Coming Soon.
- Repeat the safety rules in the **Safety and compliance** section, and help a learner accept the Ursa Ledger legal notice.

3. Site map

URLs below are the public addresses you should open in a session. Do not invent extra features. If a card says Coming Soon, it is not playable yet.

Walk the Ledger

Home: **https://xrpl.astrobear589.com/**

Lesson pages and story chapters

Page or section	What it is
Start Here https://xrpl.astrobear589.com/start-here.html	A short beginner guide: what a blockchain is, why a shared ledger matters, how the XRP Ledger reaches consensus, plus accounts, XRP, and transactions.
The walk https://xrpl.astrobear589.com/#hello (home page chapters)	A stick-figure story with Sol, Luna, Gaia, and Buzz. Chapters cover the shared notebook, consensus, the fee that vanishes, accounts and reserves, sequences, ledger close times, trust lines, the built-in decentralized exchange at a high level, and a three-question quiz.
Arcade on the Ledger https://xrpl.astrobear589.com/arcade-lesson.html	How a game score becomes a memo on a testnet Payment. Includes the weekly high-score challenge and a worked example transaction.
Payments and memos https://xrpl.astrobear589.com/payments-lesson.html	A hypothetical payment example: signing, a short reference memo, a destination tag, and why personal details stay off the ledger.

Page or section	What it is
The natal chart NFT https://xrpl.astrobear589.com/nft-lesson.html	How an issuer mints an NFT and creates a 0 XRP offer, and why the recipient taps Approve. Includes a signs-only chart preview. Birth data is never requested or written to the ledger.
Education Month special https://xrpl.astrobear589.com/nft-special.html	Finish the Walk the Ledger quiz and the Sky quiz, then claim a free testnet practice NFT using Sun and Moon signs only, or a sample chart.
Sky on the Ledger https://xrpl.astrobear589.com/sky-lesson.html	Classroom beside Live Sky. Save a sky snapshot on testnet, then read a real AccountSet field by field, including memos `astrobear/sky` and `astrobear/sky-sha256`.
Full Moon Snapshot Challenge https://xrpl.astrobear589.com/sky-challenge.html	On November 24, 2026, at 9:54 AM Eastern Time, save a testnet sky snapshot near the full moon and share the explorer link. It is a free education challenge with no prizes.
Sky quiz https://xrpl.astrobear589.com/sky-quiz.html	Ten questions on memos, fees, testnet, and why birth data must stay off the ledger.
Validated episodes https://xrpl.astrobear589.com/#validated	Episode 1, The Signature Check: a signature must check out, and a 10 drop fee is burned. Episode 2, Finish It: a malformed transaction is stamped with a tem code such as temINVALID, temBAD_SIGNATURE, or temMALFORMED, never enters a ledger, and pays no fee.
Explore https://xrpl.astrobear589.com/#explore	Links to comics and labs, including Built to Agree, the Spanish edition Hecho para acordar, Color the Ledger, Save the Sky, The Natal Offer, Sealed Envelopes, and a video and riddle hub about a proposed Lending Protocol.
Coming Soon https://xrpl.astrobear589.com/#coming-soon (on the home page)	Teasers and expected dates in Eastern Time for Ledger Lending, Arcade Governance, Daily 3D Sky, the Test Stablecoin, and later games.

Ursa Ledger

Hub: **https://arcade.astrobear589.com/**

The first time someone visits the hub or a linked game that uses the legal notice, a centered pop-up appears and the rest of the screen is dimmed. They cannot enter until they check "I understand this is not real money and has no real value" and tap Enter Ursa Ledger. After that, the notice stays dismissed in that browser unless the terms version changes. This Training Guide page is not behind that gate, so staff can read it first.

Live games and hub features

Item	What it is
Space Highway https://blazing-petal-6qtw.here.now/	Collect the three prongs of the Trident, pass a 10 question Trident Trial on the XRP Ledger, then duel Astro Bear in 3D. Works on a phone or a computer.
Ledger Snake https://minty-aurora-4fs8.here.now/	Guide Astro Bear along a path and collect XRPL facts, one square at a time. Can save a score to the testnet.
Ledger Defender https://alpine-kettle-49zb.here.now/	Keep junk off the ledger in an arcade-style education game. Can save a score to the testnet.
Ledger Racer https://jolly-sierra-2n27.here.now/	Race from one ledger close to the next, with facts along the road. Can save a score to the testnet.
Ledger Swarm https://presto-mantra-m9gb.here.now/	Watch or play as Astro Bear's aura grows and ledger blocks clear. Eight short XRPL lessons. Use Play, not Watch, if you want a score you can save.
Ledger Duel https://topaz-slate-h8gz.here.now/	Challenge a friend: multiplayer XRPL chess and quiz duels, with a question before every move.
Ledger Checkers https://kindly-bodhi-d6aa.here.now/	Play checkers with a friend. Every move is a real XRP Ledger testnet transaction. No real money.
Color the Ledger https://tropic-finch-jgz8.here.now/color.html	Color Astro Bear and friends online, or print the pages. Made for the Built to Agree kids edition. Saving a picture records the number of shapes colored as a testnet score.

Item	What it is
On-ledger leaderboard https://arcade.astrobear589.com/#leaderboard	Top scores for the games that can save, read live from the XRPL testnet. The board shows a nickname, the game, the score, and a link to the transaction. It is not a private database.
Weekly high-score challenge	Mounted on the **Arcade on the Ledger** https://xrpl.astrobear589.com/arcade-lesson.html#weekly lesson. It rotates each ISO week through Ledger Snake, Defender, Racer, Swarm, and Color the Ledger.
Score memos	Optional. A throwaway testnet wallet in the browser sends a 1 drop Payment to the collector address, with memo type `abear/score` and JSON such as `{"v":1,"g":"snake","s":420,"n":"NightOwl"}`. After it lands, a "What just happened?" card explains the payment, memo, fee, ledger index, and finality.
The Den / Star Cubs	The hub invites people to join The Den free in order to save a score. A nickname, never a real name or email, goes in the memo. Terms and Privacy describe optional Star Cub accounts, age 13 or older.
Terms of Service https://arcade.astrobear589.com/terms.html and **Privacy Policy** https://arcade.astrobear589.com/privacy.html	Linked from the footer and from the legal notice. Both pages say they are plain-language starting drafts that have not been reviewed by a lawyer.

Five games can currently save a score with the shared memo tool: Ledger Snake, Ledger Defender, Ledger Racer, Ledger Swarm, and Color the Ledger. Space Highway, Ledger Duel, and Ledger Checkers are live education games, but they are not part of that five-game score list on the Arcade lesson.

Coming Soon on the hubs

Dates are in Eastern Time, as printed on the hubs on November 13, 2026. Treat them as planned start dates, not as live features.

COMING NOVEMBER 14, ET

Ledger Lending

Earn play capital in the games, borrow from a lending pool to play others, and climb a play-money leaderboard of revenue, credit, debit, and derivatives.

COMING NOVEMBER 15, ET

Arcade Governance

Star Cubs can propose amendments and vote. A proposal that holds 80% support for a week passes, as a teaching model of XRPL amendments. Votes are advisory. Astro Bear decides what actually gets built.

COMING NOVEMBER 15, ET (WALK THE LEDGER)

Daily 3D Sky

A short daily video of that day's sky, taken from the ephemeris written to the XRP Ledger, planned for TikTok.

COMING NOVEMBER 16, ET

Test Stablecoin

A testnet-only classroom stablecoin minted against play capital, plus a lesson on what real regulated stablecoins need. It is a test coin with no value.

Later game teasers on the same boards include Ledger Brawl (November 18), Boxing (November 27), Poker (December 2), and a Platformer (December 4), all in Eastern Time, all play money.

Live Sky and the daily ledger ephemeris

For the arc minute values in the daily snapshot, see **How to read the numbers**.

Open **https://sky.astrobear589.com/**. The live wheel is calculated in the browser and synced to mainnet ledger close times. The monthly Ephemeris view is something users click to open. It is not shown as the default view.

Each day, the planet positions at 0h UT (midnight Universal Time) are written to the XRP Ledger testnet as a memo of type `astrobear/ephemeris/v1`. Days that have a snapshot show an "On ledger" badge in the Ephemeris table, linking to the testnet explorer. The memo holds the Sun, Moon, planets, Chiron, and the true node, to the arc minute, plus a retrograde flag. It holds no personal data and nothing about anyone's birth.

The writing account is **rnN1GhbLvoQWHC5Y7RzWvuyzyks92qzuRr** on testnet. The transaction type is AccountSet. Memo format is `application/json`, for example:

```
{"v":1,"d":"2026-11-13","p":{"Su":[13837,0],"Mo":[16305,0],"NN":[19524,1]}}
```

In that object, `d` is the UTC day, and each body code maps to `[arcminutes, retro]`, where retro is 1 or 0. Codes include Su, Mo, Me, Ve, Ma, Ju, Sa, Ur, Ne, Pl, Ch, and NN (the true node). The South Node is not stored separately, because it is 180 degrees from the North Node. This is testnet, so test XRP has no value, and a testnet reset can clear history.

A separate, optional action on Live Sky lets a person save their own sky snapshot, which is the subject of the Sky on the Ledger lesson. That write uses memo types `astrobear/sky` and `astrobear/sky-sha256`. Teach both, and keep the labels straight: the daily table is the ephemeris, and a user-saved snapshot is the sky lab exercise.

4. How to run a session

Before any session, open the sites yourself on the same kind of device your group will use. Accept the Ursa Ledger legal notice. Confirm that **testnet.xrpl.org** loads. Have this guide or the PDF nearby. Tell the group that everything they write to the ledger is public, even on testnet, and that they must use a nickname, never a real name, email, or birth detail.

If people will save a score or a sky snapshot, they need a browser and a network connection. The score tool can create a throwaway testnet wallet in the browser and ask the public testnet faucet for test XRP. That faucet is sometimes slow. Build in a couple of extra minutes.

30 minute session

Goal: a first pass at what the XRP Ledger is, plus one look at a real testnet transaction.

- 5 min. Purpose, safety rules, and the legal notice if you will open Ursa Ledger.
- 10 min. **Start Here**, or the Hello, Notebook, and Agree chapters of the walk.
- 10 min. Open the example score transaction from the **Arcade lesson**, or an "On ledger" day in **Live Sky**, and read it on the explorer together.
- 5 min. Questions, and point people to one game or the Sky quiz for later.

60 minute session

Goal: basics, accounts, memos, and a hands-on save or a worked example.

- 5 min. Safety and the legal notice.
- 15 min. Start Here plus the Fee, Locker, and Pages chapters.
- 10 min. Payments and memos lesson.
- 20 min. Play one score-saving game, or walk the Arcade lesson example, then read the "What just happened?" card and verify it on the explorer. If the faucet is down, use the published example transaction.
- 10 min. Discussion, the three-question walk quiz, and preview Coming Soon without treating it as live.

90 minute session

Goal: a full staff training that covers every module in this guide, with honest labels for features that are still Coming Soon.

- 10 min. Purpose, objectives, legal notice, safety rules, and a tour of the three sites.
- 15 min. Module 1, XRPL basics, including a short clip from Validated Episode 1 if time and sound allow.
- 10 min. Module 2, accounts and reserves.
- 15 min. Module 3, payments and memos, with the Arcade lesson as the live example.
- 15 min. Module 4, reading a transaction, using either a fresh score, Ledger Checkers (every move is a testnet transaction), or the daily ephemeris badge in Live Sky.
- 10 min. Module 5, the NFT lesson and the signs-only rule.
- 10 min. Modules 6 to 8, trust lines now, plus the Coming Soon cards and the Sealed Envelopes and Lending Protocol video hubs as classroom stand-ins for features that are not live in the arcade yet.
- 5 min. Quiz recap, certificate, and where to get help.

For a mixed-age group, prefer Start Here, the walk, Color the Ledger, and Ledger Snake. People under 13 should not use Ursa Ledger.

5. Module-by-module facilitator guide

Each module lists the live page or game to open, talking points, a hands-on activity, discussion questions, and a short check quiz with an answer key. Prefer the live page over this summary if a detail ever differs.

MODULE 1 XRPL basics

Open: **Start Here**, then the walk chapters **Hello**, **Notebook**, **Agree**, **Fee**, and **Pages**. Optional: **Validated Episode 1** and the comic **Built to Agree**.

Talking points

- A blockchain is a shared record book that many computers keep at the same time, so no single person controls it.
- On the XRP Ledger, each new page is a ledger version, not a "block" in the same wording other chains use.
- Consensus is how the network agrees on the next page. Servers called validators compare notes until a supermajority agrees. Anyone can run a validator. There is no mining.
- A new ledger usually closes about every 3 to 5 seconds. The XRP Ledger has been running since June 2012. Those figures are written to match xrpl.org.
- Every transaction must destroy a small amount of XRP as a transaction cost. It is not paid to validators. The usual minimum for a standard transaction is 10 drops. One drop is one millionth of one XRP. The cost can rise if the network is busy, which helps protect the ledger from junk.
- This classroom uses testnet, a practice network. Test XRP has no value.

Hands-on activity

Read Start Here as a group, then play the "help them agree" and "watch a fee vanish" activities on the walk. If you have sound, play Episode 1, The Signature Check (about 44 seconds): a signature must check out, and a 10 drop fee is burned.

Discussion questions

- Why is a shared notebook harder to quietly change than a notebook one person holds?
- If the fee is destroyed, who "earns" it? (No one. That is the point.)
- How is this different from a chain that reaches agreement through mining?

Quick check

1. What happens to the tiny XRP fee on a transaction?
2. How does the XRP Ledger decide the next page of the notebook?
3. About how often does a new ledger usually close?

Answer key: 1. It is destroyed, and paid to no one. 2. Validators keep talking until they agree. 3. About every 3 to 5 seconds. These are the same three questions as the walk quiz on the home page.

MODULE 2

Accounts and reserves

Open: Start Here (the Accounts and XRP sections), plus walk chapters **Locker** and **Tickets**. Optional: Validated Episode 2, Finish It, for invalid transactions and tem codes.

Talking points

- An account holds XRP and sends transactions. It is identified by an address, and it keeps a sequence number so each transaction is applied in order and only once.
- To exist on the ledger, an account must hold a small amount of XRP in reserve. That helps keep the shared book from filling up with empty accounts. The Start Here page lists the current base reserve on Mainnet as 1 XRP. Confirm the current value on **xrpl.org** before you teach it, because protocol values can change.
- XRP is the native asset. It is not a token added later, and it can be sent directly from account to account.
- A sequence is like a bakery ticket. You cannot use the same ticket twice, and you cannot skip ahead.
- A transaction can also carry a LastLedgerSequence, a safety limit after which it expires if it has not been included.
- A malformed transaction can be rejected with a tem code, for example temINVALID, temBAD_SIGNATURE, or temMALFORMED. It never enters a ledger and pays no fee. That is the lesson of Episode 2.

Hands-on activity

Walk the Locker and Tickets chapters, including the bakery-line riddle. Then open any testnet transaction from Module 4 and point to the Account, Sequence, and Fee fields so people can see those ideas on a real page.

Discussion questions

- Why might a shared ledger require a reserve before an account can exist?
- What would go wrong if two transactions could use the same sequence?
- Why is a throwaway testnet wallet a better teaching tool than asking anyone for a real-world seed?

Quick check

1. What does a sequence number prevent?
2. Does XRP need a trust line to be sent from one account to another?
3. If a transaction is stamped temMALFORMED, does it enter a ledger, and is a fee destroyed?

Answer key: 1. It keeps transactions in order and stops the same one from being applied twice. 2. No. XRP is the native asset and can be sent directly. 3. No and no. A tem-coded transaction never enters a ledger and pays no fee.

MODULE 3 Payments and memos

Open: **Payments and memos** and **Arcade on the Ledger**. Optional comic: **The Natal Offer**.

Talking points

- A Payment is a signed instruction that moves an amount from one account to another. Only the holder of the secret key can sign. A website should never ask for that key.
- A memo is a short public note attached to a transaction. It is public and permanent, even on testnet.
- In the payments lesson, the example memo holds only a short reference number, such as REF-184592. Not a name, not an email, and never a birth date, birth time, or birth place.
- A destination tag is an optional number that helps a receiver sort many payments at one address. It is a label, not a secret. Some accounts can require a tag so a payment without one is rejected.
- The arcade uses that same idea for fun: a 1 drop testnet Payment to a collector address, with a memo that holds the game, the score, and a nickname. The ledger does not "know" what a game is. It only stores the transaction and the note.
- The payments lesson is a worked example, not an offer of a service, and nothing on that page takes a payment.

Hands-on activity

Read the payments lesson, then the Arcade lesson through the sample memo for NightOwl. If the group is ready, play Ledger Snake or another score-saving game, tap Save my score on the testnet ledger, pick a nickname, and wait for the "What just happened?" card. If the faucet fails, use the published example instead: **transaction 145E2BF4...BD9A95**, fee 12 drops, ledger index 22295779.

Discussion questions

- Why is a nickname safer than a real name in a memo?
- What is the difference between a destination tag and a memo?
- The leaderboard is read from the public ledger. What can that prove, and what can it not prove? (It proves a score was written, not that it was earned. Scores are self-reported.)

Quick check

1. Is a memo private?
2. What three things does an arcade score memo hold?
3. Who receives the 10 (or so) drop transaction fee?

Answer key: 1. No. Memos are public and permanent. 2. The game, the score, and a nickname (format version, game code, score, nickname). 3. No one. The fee is destroyed.

MODULE 4

Reading a transaction on the testnet explorer

Open: testnet.xrpl.org, plus one of: the Arcade lesson example, a fresh "What just happened?" card, a Ledger Checkers move, a Live Sky "On ledger" badge, or the Sky lesson example **3AD2EEED...18CFD363**.

Talking points

- The explorer is a public window onto the ledger. Anyone can look up the same hash and see the same record.
- Always confirm you are on testnet, not mainnet. The two can look similar.
- Useful fields: Transaction type (Payment or AccountSet in these lessons), Result (tesSUCCESS means the ledger accepted it), Fee, Account, Sequence, Ledger index, close time, and Memos.
- Validated means enough trusted validators have agreed that page is final. The transaction cannot be edited or reversed.
- MemoType and MemoData may appear as plain text or as hexadecimal. Two hex characters are one byte. If you see a long hex string, decode it to read the note.

Hands-on activity: read it step by step

1. Open **https://testnet.xrpl.org**. Confirm the page is the testnet explorer.
2. Paste the transaction hash into the search box, or follow the explorer link from a lesson, a badge, or a "What just happened?" card.
3. Check the transaction type, the result tesSUCCESS, and that the network is testnet.
4. Note the fee (in drops) and the ledger index. A new page closes about every 3 to 5 seconds.
5. Find the Memos section. Read MemoType. For a game score it should be `abear/score`. For a daily ephemeris it should be `astrobear/ephemeris/v1`. For a user-saved sky snapshot it should be `astrobear/sky`, with a second memo `astrobear/sky-sha256`.
6. Read MemoData. If the explorer already shows JSON or the ABSKY1 line, you are done. If it shows hex, decode it to text (two hex characters per byte) and you should see the same game, score, and nickname, or the same sky or ephemeris payload, that the site described.
7. Compare what you see with the "What just happened?" card or the lesson walk-through. The hash, fee, ledger index, and memo should match.

Discussion questions

- If two people open the same hash on two different computers, should they see the same memo? Why?
- Why does finality make it a bad idea to put personal details in a memo, even on testnet?
- What is the difference between tesSUCCESS and a tem error from Episode 2?

Quick check

1. What does tesSUCCESS mean?
2. What memo type does a daily Live Sky ephemeris use?
3. If MemoData looks like `7B2276223A31...`, what should you do?

Answer key: 1. The ledger accepted the transaction. 2. `astrobear/ephemeris/v1`. 3. Decode the hexadecimal to text. That example prefix is the start of a JSON object (it begins with `{"v":1`).

MODULE 5

NFTs

Open: **The natal chart NFT** and, if useful, the **Education Month special**. Example testnet NFT from the lesson: **this token on the explorer**.

Talking points

- An NFT cannot be pushed into a wallet. The issuer mints it, then creates a 0 XRP offer aimed at an address. The recipient taps Approve once to receive it. That is how the XRP Ledger works.
- The practice NFT in this classroom is a signs-only natal chart. The page never asks for a birth date, birth time, or birth place. Those details must never be written to the ledger, a memo, or NFT metadata.
- Signs are public once they are on an NFT and can hint at a birth window, so people should only share signs they are comfortable sharing. Houses and the Ascendant are left off the public NFT.
- The Education Month special is free practice on testnet. There is nothing to buy and no prize contest. After both quizzes are finished in that browser, a person can ask for a practice NFT by sending a testnet address plus Sun and Moon signs only, or by asking for the sample chart. Never send a seed.
- This is education, not financial advice, and not a discussion of NFT markets or prices.

Hands-on activity

On the NFT lesson, tap Random sample chart (or set signs) and look at the signs-only wheel. Then open the real testnet offer in the lesson and read it field by field, including the 0 XRP amount and the Approve step. If the group will claim the special later, finish the walk quiz and the Sky quiz in the same browser first.

Discussion questions

- Why might a ledger require the recipient to approve an NFT offer instead of letting someone push a token into a wallet?
- Why are signs-only charts used on the public NFT, and why is that still not the same as "private"?
- What would you do if a learner started to type a birth time into a form or a memo? Stop, and remind the group of the hard rule.

Quick check

1. Can an issuer force an NFT into someone else's wallet?
2. May birth date, time, or place go into NFT metadata?
3. What does the 0 XRP offer mean in the lesson?

Answer key: 1. No. The recipient has to approve the offer. 2. Never. 3. The practice NFT is offered at 0 XRP. The lesson is about the mint and approve flow, not about buying or selling.

MODULE 6

Trust lines and stablecoins

Open now: walk chapters **Tokens and trust lines** and **the built-in DEX, at a high level**, plus the mini-comic **Sealed Envelopes**. **Not live yet:** the Test Stablecoin card on **Ursa Ledger**, planned for November 16, 2026, Eastern Time.

Talking points

- XRP lives in the ledger itself. Other tokens sit on trust lines.
- A trust line is an agreement between an account and the issuer of a token, with a limit on how much of it that account is willing to hold. Nobody can push a token onto you, though your own trades can still create the trust line.
- A token is identified by both its currency code and its issuer. Two tokens with the same name but different issuers are not the same thing.
- The walk will not send anyone toward a particular token or issuer. Teach the tool, not a product.
- The ledger also has a decentralized exchange in the protocol itself: people can post offers, and the ledger can match them when a new page closes. Keep this at a high level. This is not trading advice and not a reason to use the DEX with real value in class.
- Sealed Envelopes is a short comic about Confidential Transfers, a proposed feature in a validator vote that would let certain issued tokens hide amounts while still allowing approved checkers to look when they need to. The written spec is final, but the amendment is not enabled. Use that as a living example of how features wait on governance.
- The coming Test Stablecoin is described on the hub as a testnet-only classroom coin you mint against play capital, plus a lesson on what real regulated stablecoins need. It is a test coin with no value. Do not hint that it will become a real coin, a sale, or an investment. The Terms say there is no promise that it will ever exist off this educational game world.

Hands-on activity

Read the Tokens chapter and open Sealed Envelopes. Then visit the Test Stablecoin Coming Soon card so staff can see the planned classroom model and the "no value" wording. If you mention a real-world regulated stablecoin, keep it as a comparison for what regulation involves, not as a recommendation, and do not treat the arcade coin as a path to one.

Discussion questions

- Why does the issuer matter as much as the currency code?
- Why might a classroom stablecoin stay on testnet even if the lesson talks about real-world regulation?
- What is the difference between "the written spec is final" and "the amendment is enabled"?

Quick check

1. Do issued tokens and XRP use the same holding model?
2. Is the Ursa Ledger Test Stablecoin live today, and does it have value?
3. Are Confidential Transfers enabled on the ledger, according to the Sealed Envelopes note?

Answer key: 1. No. Issued tokens sit on trust lines. XRP does not use a trust line. 2. It is not live on the date of this guide. When it arrives, it is a test coin with no value. 3. No. The amendment is not enabled.

MODULE 7

The lending protocol

Not live in the arcade yet. Open the Ledger Lending Coming Soon card on **Ursa Ledger** (planned November 14, 2026, Eastern Time) and the existing video and riddle hub **about a proposed Lending Protocol**, which the Explore page describes as in a validator vote and not live yet.

Talking points

- Be explicit: staff are previewing a classroom design and a proposed ledger feature, not running a live lending product.
- The planned arcade version, as written on the hub, lets players earn play capital in the games, borrow from a lending pool to play other games, and climb a leaderboard of play-money revenue, credit, debit, and derivatives.
- All of that is play money. It cannot be bought, sold, or cashed out. It is not a loan of real value, not a security, and not financial advice.
- The Explore hub already has a short video and shareable riddle cards about a proposed XRP Ledger Lending Protocol. That protocol is in a validator vote and is not live on the network. Use the video as the current teaching aid until the arcade build ships.
- When the arcade version is live, return to this module and teach from the screens themselves, including any "What just happened?" cards those pages add.

Hands-on activity

Watch the Lending Protocol video hub as a group and discuss, in plain words, what a pool, a loan, and repayment would mean as a classroom model. Then read the Coming Soon card out loud, including the play-money wording. Do not simulate real interest, credit scores, or fundraising.

Discussion questions

- Why does a teaching model belong on testnet with play money, not on mainnet?
- What should a facilitator say if a learner asks how to earn real yield? (This is a classroom game with no value, and it is not advice.)
- How will you label this module until the arcade build is actually live?

Quick check

1. Is Ledger Lending playable on Ursa Ledger as of this guide's date?
2. Does play capital have cash value?
3. Is the proposed XRPL Lending Protocol described on the Explore hub as already live?

Answer key: 1. No. It is a Coming Soon card dated November 14, 2026, Eastern Time. 2. No. 3. No. It is in a validator vote and is not live yet.

MODULE 8

Amendments and governance

Open now: the Agree chapter of the walk, Sealed Envelopes (a proposed amendment), and the Arcade Governance Coming Soon card on **Ursa Ledger** (planned November 15, 2026, Eastern Time). Confirm current amendment rules on **xrpl.org**.

Talking points

- The XRP Ledger changes through amendments. Validators vote on proposed features. A common teaching summary, which you should confirm on xrpl.org, is that an amendment is enabled only after it holds at least 80% support for two weeks, and that the clock resets if support falls below 80%.
- Sealed Envelopes and the Lending Protocol video are concrete "not enabled yet" examples you can show today.
- The planned arcade version, as written on the hub, lets Star Cubs propose amendments to improve the games and vote on them. A proposal that holds 80% support for a week passes, as a faster classroom model of the same idea.
- The Terms of Service are clear: those votes are advisory. They help show how consensus can work, but Astro Bear decides what actually gets built and when.
- Do not present arcade votes as on-chain control of the real XRP Ledger, or as a way to buy an outcome. The planned teaching model is one person, one vote.

Hands-on activity

Revisit how validators agree in the walk. Read the Sealed Envelopes blurb that the amendment is not enabled. Then read the Arcade Governance card and the Terms section "Governance votes are advisory." Ask the group to write one example of a classroom amendment (for example, "add a new level to a game") and to say how they would measure 80% support without treating it as a real election.

Discussion questions

- Why might a network require a supermajority for a long stretch of time, not a single close vote?
- Why does the arcade say votes are advisory?
- How does this module connect to Module 1's picture of consensus?

Quick check

1. What happens, in the usual XRPL teaching model, if amendment support drops below 80% before the waiting period ends?
2. Is Arcade Governance live on the date of this guide?
3. If an arcade amendment vote passes, is Astro Bear required to build it?

Answer key: 1. The clock resets. Confirm the current rule on xrpl.org. 2. No. It is Coming Soon, November 15, 2026, Eastern Time. 3. No. The Terms say votes are advisory, and Astro Bear decides what gets built and when.

6. How to read a "What just happened?" card

After a player saves a score in Ledger Snake, Ledger Defender, Ledger Racer, Ledger Swarm, or Color the Ledger, the game shows a card titled "What just happened?" Teach staff to read it top to bottom, then verify it on the explorer. Do not skip the verification step. The card is a translation. The explorer is the public record.

Fields on the card, and what to check

Card section	What it is telling you	What to confirm on testnet.xrpl.org

Card section	What it is telling you	What to confirm on testnet.xrpl.org
The transaction	The browser signed a Payment of 1 drop of test XRP from a throwaway test wallet to the collector address. The secret key never leaves the device.	Type is Payment. Destination is **r3v5o1vRmbLNz9e9Xhooge88jrnvSFqrYZ** https://testnet.xrpl.org/accounts/r3v5o1vRmbLNz9e9Xhooge88jrnvSFqrYZ . Amount is 1 drop (0.000001 test XRP).
The memo	A public note with the game, score, and nickname, for example `{"v":1,"g":"snake","s":420,"n":"NightOwl"}`, memo type `abear/score`.	Open Memos. Decode MemoData if it is hex. The JSON should match the card.
The fee	A tiny network fee, destroyed, not paid to anyone. The card states the amount in drops and in test XRP.	The Fee field should match. In the published example it is 12 drops.
The ledger index	The page number where the transaction landed. A new page closes about every 3 to 5 seconds.	The ledger index on the explorer should match the card (22295779 in the published example).
Finality	Validators agreed on that page. The result is validated (usually tesSUCCESS). It cannot be edited or taken back.	Result is tesSUCCESS, and the transaction is validated.
Check it yourself	A shortened hash and a direct explorer link, plus links to the leaderboard and the Arcade lesson.	Follow the link. The full hash in the address bar is the official identifier.

The same habit works for other classroom writes. For a daily ephemeris, start from an "On ledger" badge, expect an AccountSet, and look for memo type `astrobear/ephemeris/v1`. For a user-saved sky snapshot, follow the Sky lesson and look for `astrobear/sky` and `astrobear/sky-sha256`. For Ledger Checkers, open the testnet transaction that was created for a move and read it the same way.

A public ledger proves that a note was written, not that a score was earned. Anyone can send a test transaction. Tell learners the leaderboard is a fun board for learning, not a referee. The board only shows a nickname, the game, the score, and the link.

7. Safety and compliance

Read this section out loud at the start of every session. The legal notice on Ursa Ledger covers the same ground. The Terms and Privacy pages are drafts that have not been reviewed by a lawyer. Keeping the classroom on play money, with nothing for sale, is how these sites stay in education territory. If anything later moves toward real value, a qualified lawyer should review it before staff teach it as more than a model.

- **Testnet only.** Classroom writes use the XRP Ledger testnet. Test XRP and test tokens have no value. A testnet can be reset by its operators, which can erase history. Mainnet is the live ledger and is not the place for these games or snapshots.
- **Play money only.** Scores, play capital, loans, votes, leaderboards, and any test coin are play money. They cannot be bought, sold, cashed out, or redeemed. They are not a security, a commodity, an investment, a deposit, or gambling.
- **Never share a seed or secret key.** A real wallet app will not ask a website for a seed. These games do not ask for one. If a page or a person asks for a seed, stop. The score tool creates a throwaway testnet wallet in the browser. That secret stays on the device.
- **No financial advice.** There are no price calls, no trading tips, and no recommendations to buy or sell anything. Do not promote a token, project, exchange, or wallet. Point facts back to xrpl.org.
- **Astro Bear is not a regulated financial business.** The legal notice states that Astro Bear is not registered with the SEC, the CFTC, or any regulator, and does not offer financial products. Do not describe these sites as a bank, broker, exchange, payment service, or casino.
- **Privacy and nicknames.** Use a nickname, never a real name or an email, in memos and on leaderboards. Data written to a ledger is public and permanent. Off-ledger account data can be the subject of a deletion request at the contact address below. Ledger records cannot be erased.
- **Age 13 or older.** Ursa Ledger is not directed at children under 13. If a participant is under 18, a parent or guardian has to be okay with them using it. People under 13 should not create an account or submit personal information.
- **Birth data never goes on-chain.** Never put a birth date, birth time, or birth place in a transaction, a memo, or NFT metadata, on testnet or mainnet. Live Sky and the daily ephemeris store sky positions and times only. The public practice NFT shows planets by sign only. Repeat this rule if anyone starts to share those details.
- **Not an official Foundation page.** Do not say the XRP Ledger Foundation published, funds, or endorses these materials. Tagging @XRPLF when someone shares a lesson is an invitation to look, not a claim of partnership.

8. Accessibility and phone tips

Facilitator habits

- Prefer the written lessons when a room has mixed hearing needs. The walk, labs, and this guide carry the same facts as the short videos. If a video has no captions, use the matching page.

- Do not rely on color alone. "On ledger" badges, quiz feedback, and fee animations should be described in words when you present.
- Leave enough time for reading. The legal notice is written in large type on purpose. Do not paraphrase it down to a single sentence and move on. Let people open Terms and Privacy.
- The legal dialog traps keyboard focus until the box is checked and Enter is pressed. Escape does not dismiss it. That is intentional. The Training Guide itself does not show that dialog.
- Offer a larger-screen view for the explorer. Tables and hex strings are harder on a narrow phone.

Phone and small screens

- The games and lessons are built to run in a mobile browser. On a phone, hold the device in whatever orientation the game uses comfortably, and keep the tab open until a save finishes.
- For Live Sky, open the Ephemeris view on purpose. It is not the default view. The "On ledger" badges appear on days that have a snapshot, after the page finishes reading the testnet.
- The testnet explorer works on a phone, but search, memo hex, and account pages are easier in landscape or on a computer. In a group, project the explorer and let phones follow along.
- If a font or layout looks tight, the browser zoom still works on the lesson pages and on this guide.
- Saving a score needs a network connection and the public faucet the first time a throwaway wallet is funded. On a weak phone connection, give it a minute, or switch to the published example transaction.

9. Troubleshooting and FAQ

The Enter Ursa Ledger button is grayed out.
The checkbox is not checked yet. The visitor has to check "I understand this is not real money and has no real value." Then the button becomes usable. The notice cannot be closed with Escape.

The legal notice appears again.
It is remembered in localStorage for the current terms version. A different browser, a private window, cleared storage, or a later terms version will show it again.

A confirmation email never arrived after a sign-up.
Check the spelling of the address, then the spam folder. A typo such as ".con" instead of ".com" will not be delivered. Use an email the person controls. Never collect a password in a chat or on a whiteboard.

Save my score failed, or the faucet did not fund the wallet.
The public testnet faucet and WebSocket servers are sometimes busy. Wait and try once more. If it still fails, teach from the published example transaction and try the save again later. Do not ask anyone to paste a seed.

The score is not on the leaderboard yet.
Wait for the transaction to be validated, then refresh the board. The board reads incoming payments to the collector and keeps the best score per test wallet for each game. Confirm the explorer link

first. If the memo is missing or the nickname was cleaned, it may not appear as expected.

The memo on the explorer looks like hex, not words.
That is normal. Decode MemoData from hex to text, as in Module 4. The Arcade lesson also shows a worked hex example for the NightOwl memo.

Live Sky does not show "On ledger" badges.
Open the Ephemeris view (it is click-to-open). Give the page a moment to read the testnet. If the testnet is unreachable, try again. Remember that a testnet reset can clear older days.

A learner wants to use mainnet or real XRP.
Decline for this classroom. These sites are testnet and play money. Using real-value funds would change the risk and the compliance picture.

A learner types a birth date or a real name into a memo field.
Stop the save. Explain that ledger data is public and permanent. Use a nickname and sky or game data only. If something was already written, you cannot erase the ledger record. You can still take it down from a site display and remind the group of the rule.

Is this an official XRP Ledger Foundation training?
No. It is a fan-made education handbook for these sites. You may use it to train staff. Do not present it as a Foundation credential or endorsement.

Can we skip the legal notice if we only play for five minutes?
No. Anyone entering the arcade or a gated game needs to read it and check the box. This guide is the exception, so staff can prepare first.

10. Glossary

Account
A holder of XRP and a sender of transactions, identified by an address, with a sequence number.

AccountSet
A transaction type that can change account settings or, in these lessons, carry memos without sending value. Daily ephemeris writes and user sky snapshots use AccountSet.

Amendment
A proposed change to the XRP Ledger that validators vote on. A usual teaching summary is that it needs at least 80% support for two weeks. Confirm the current rule on xrpl.org.

Arc minute
A unit of angle. There are 60 arc minutes in one degree, and 21,600 in a full circle. Live Sky stores positions in whole arc minutes.

Collector address
The testnet account that receives 1 drop score Payments: r3v5o1vRmbLNz9e9Xhooge88jrnvSFqrYZ. The site only reads it. Visitors cannot spend from it.

Consensus

The process of agreeing on the next ledger version: which transactions to include, and in what order.

Destination tag
An optional number on a Payment that helps a receiver sort payments at one address. It is public.

Drop
One millionth of one XRP. 10 drops is a common minimum transaction cost. Arcade score Payments send 1 drop as the amount, plus a separate fee.

Ephemeris
A table of planet positions by day. On Live Sky, the monthly view is click-to-open, and days with a testnet snapshot show an "On ledger" badge.

Fee (transaction cost)
A small amount of XRP destroyed when a transaction is included. It is paid to no one.

Finality / validated
Enough trusted validators have agreed on that ledger version, so the transaction is final.

Ledger index
The page number of a ledger version.

Mainnet
The live XRP Ledger, where XRP has real-world value. These classroom writes do not go here.

Memo
A short public note attached to a transaction. Permanent. Never a place for personal data.

NFT offer
In the lesson, a 0 XRP offer aimed at an address. The recipient must approve it. An NFT cannot be pushed into a wallet.

Payment
A transaction that moves an amount from one account to another. Arcade scores ride on a tiny testnet Payment.

Play money / play capital
Classroom balances with no value. They cannot be cashed out.

Reserve
XRP that must stay in an account for that account, or some objects it owns, to exist on the ledger. Check the current amount on xrpl.org.

Sequence
A per-account counter that orders transactions and prevents doubles.

Star Cub
A member of The Den, Astro Bear's community name for people who join. Use a nickname, not a real name, in public game data.

tem code

A class of result that means a transaction was malformed or otherwise invalid and never entered a ledger, so no fee is destroyed. Examples include temINVALID, temBAD_SIGNATURE, and temMALFORMED.

tesSUCCESS
The ledger accepted the transaction.

Testnet
The practice XRP Ledger network. Test XRP has no value. History can be reset.

The Den
The name of the community. Joining is offered as a free way to take part in score saving and later classroom features.

Transaction hash
The unique identifier of a transaction. Paste it into the explorer to open the official record.

Trust line
An agreement to hold an issued token from a particular issuer, up to a limit. XRP does not use one.

Ursa Ledger
Astro Bear's game world and arcade hub at arcade.astrobear589.com.

Validator
A server that takes part in consensus by proposing and agreeing on the next ledger.

Walk the Ledger
The education story and labs at xrpl.astrobear589.com.



ASTRO BEAR · XRPL EDUCATION MONTH 2026

Certificate of Completion

Staff Training Guide: Teaching with Astro Bear's XRPL education sites

This is to recognize that

PARTICIPANT NAME

has completed a facilitator training session covering Walk the Ledger, Ursa Ledger, and Live Sky, including how to read a testnet transaction and the classroom safety rules.

ORGANIZATION

DATE

FACILITATOR

SESSION LENGTH (30 / 60 / 90 MINUTES)

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12. Contact

Questions about this guide, the education sites, a Star Cub account, or a deletion request can be sent to **hello@astrobear589.com**.

On X, the project account is **@AstroBear589**.

Public sites used in this handbook:

- Walk the Ledger: **https://xrpl.astrobear589.com/**
- Ursa Ledger: **https://arcade.astrobear589.com/**
- Live Sky: **https://sky.astrobear589.com/**
- XRPL testnet explorer: **https://testnet.xrpl.org**
- Protocol reference: **https://xrpl.org**

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A fan-made educational handbook for #XRPEducationMonth 2026. It is not affiliated with the XRP Ledger Foundation, and it is not an official Foundation page. Not financial advice. Testnet only. Play money only.

Made by Astro Bear. Facts on the linked lesson pages were written to match xrpl.org.