STRETCHLEARN · WORKBOOK

NFT & Digital Collectible Design — Workbook

This workbook turns the course into the real artifacts of a collection: a brief, a layer stack, a trait library, a rarity table, and a reveal plan. Each section maps to one course module and mixes hands-on art drills, fill-in planning worksheets, and pre-generation audit checklists. Keep your master layered file and the trait-and-rarity template open while you work, because a collection becomes unmanageable the moment you stop tracking traits in one place. Do the exercises in real art software at full canvas size, and test everything at thumbnail size before you trust it.

Reading the Collectible Landscape

Build a collector's eye and turn a vague idea into a tight, buildable design brief.

Exercise: Deconstruct Five Collections

Choose five well-known collections, for example CryptoPunks, Bored Ape Yacht Club, Pudgy Penguins, Azuki, and one you personally like. Save each at full size and again shrunk to roughly 64 by 64 pixels, then take them apart against the questions below.

• What is the base character, and which elements never change across the whole collection?

• List the trait categories you can identify, from background through front-most accessories.

• How many colors are in the palette, and how saturated and consistent are they across traits?

• At thumbnail size, what survives and what dissolves, and what single feeling does every piece share?

Exercise: Find the Failure Points

Find two weaker collections and study what breaks them. Look specifically for inconsistent lighting, palette drift, mismatched line weights, or styles that change between trait categories.

• Where does the lighting direction become inconsistent between traits?

• Which traits or backgrounds clash with the palette, and how would you fix them?

• Do any trait categories look like they were drawn by a different hand or at a different detail level?

• Write one rule each failure teaches you to enforce in your own collection.

Worksheet: Collection Brief Sheet

Fill this in completely before you draw a single trait. Pin the finished page above your canvas and check every later decision against it.

Concept and attitude in one sentence

Base character and its fixed anatomy

Canvas size and aspect ratio (square, exported large)

Total collection size

Locked palette swatches

Lighting model: light direction and shadow logic

Trait categories planned and rough option count each

Combination math: product of options versus collection size

Checklist: Brief Completeness Check

[ ] Concept stated as one clear sentence with a single attitude
[ ] Base character and fixed anatomy locked and drawn
[ ] Square canvas size chosen and set to export large
[ ] Palette defined as named swatches, not picked ad hoc
[ ] Lighting direction decided and marked with an arrow on the canvas
[ ] Combination count comfortably exceeds the planned collection size

Building the Layered Trait System

Construct the layer stack, draw consistent traits, and organize files so generation never breaks.

Worksheet: Layer Stack and Z-Order Plan

Define your full stack from back to front and lock the anchor every trait registers against. This becomes the master file structure for the whole collection.

Anchor point (for example, eye-line coordinate) locked for all traits

Layer 1 (back): background

Layer 2: body or base

Layer 3: clothing

Layer 4: face base

Layer 5: eyes and mouth

Layer 6 (front): headwear and accessories

Any additional layers and their exact position in the stack

Exercise: Build Three Traits In Context

In your master file, design three traits for the same category, for example three headwear options, each on its own transparent layer registered to the anchor. Toggle them over several different base combinations as you draw.

• Does each trait stay aligned to the anchor across every base combination you test?

• Is the line weight identical to your other traits, measured in pixels at working size?

• Does the highlight sit on your chosen light side and the shadow opposite on every one?

• Does any trait clip or overlap something it should sit cleanly in front of or behind?

Exercise: Consistency Drift Audit

Lay your earliest-drawn trait and your most recent trait side by side at thumbnail size. Hunt for the drift that creeps in over a long production.

• Has the detail level escalated between the early and late trait?

• Are the outline colors and weights truly identical, or has the black shifted?

• Do the shadows match in softness, direction, and value?

• What single adjustment brings the outlier back in line with the collection?

Checklist: Per-Trait Approval Check

[ ] Drawn on its own transparent layer at full canvas size with no cropping
[ ] Registered exactly to the locked anchor point
[ ] Colors pulled only from the locked palette swatches
[ ] Outline thickness matches the collection standard in pixels
[ ] Highlight and shadow follow the single chosen light direction
[ ] Exported as a clearly named PNG into its category folder

Rarity, Aesthetics, and 1-of-1 Art

Tune a desirable rarity curve, sharpen thumbnail legibility, and craft a standalone 1-of-1.

Worksheet: Rarity Weighting Table

For one category, list every trait and assign a weight, then estimate appearances across your collection size. Confirm your rarest traits are also your best-looking.

Trait name

Tier (common, uncommon, rare, special)

Assigned weight

Weight share of the category

Estimated appearances (share times collection size)

Looks good in its combinations? (yes / fix)

Exercise: The Thumbnail Test

Take five assembled or mocked-up pieces, shrink each to roughly 64 by 64 pixels, and judge legibility honestly at that size.

• Can you still tell what the character is from the silhouette alone?

• Do the eyes and key traits read, or do they dissolve into a smudge?

• Does the character separate cleanly from its background in a circular crop?

• Which piece reads best small, and what specifically makes it work?

Exercise: Design One 1-of-1 Piece

Create a single unique piece in your collection's style, treating it as a portfolio work with its own concept and full-frame composition rather than a centered PFP.

• What is the concept the piece is about, in one sentence?

• Where is the focal point, and what path does the eye travel through the frame?

• How does it keep a family resemblance to your PFP set in palette and linework?

• Does it still pass the thumbnail test when shown small in a marketplace grid?

Checklist: Rarity and Aesthetics Check

[ ] Rarest traits are among the most desirable, not the most clashing
[ ] Tiered weighting roughly planned across common to special
[ ] Every special or legendary trait designed to a higher standard
[ ] All backgrounds tested against the lightest and darkest characters
[ ] The collection has one identifiable signature feature
[ ] Every reviewed piece passes the 64-pixel thumbnail test

Assembling and Presenting the Collection

Generate, audit, document, and present the finished collection as portfolio-grade work.

Worksheet: Exclusion and Generation Plan

List the combinations that must never generate together and the settings your assembly will use, so the run is clean the first time.

Assembly tool chosen (for example HashLips, Bueno, NFT-Inator)

Forbidden pairing 1 and the reason

Forbidden pairing 2 and the reason

Forbidden pairing 3 and the reason

Number of special / one-of-a-kind pieces and their intended frequency

Edge-case combinations to dry-assemble before the full run

Exercise: Audit the Generated Grid

After a generation run, view the output as a contact-sheet grid and review it against the standard set in your brief. Flag everything that needs a fix.

• Are there any alignment breaks, clipping, or palette clashes in the grid?

• Did any rare trait land on an unflattering pairing that needs an exclusion?

• Do the actual trait counts match your intended rarity weights?

• Which fixes are exclusion-rule changes, and which require improving the trait art?

Worksheet: Reveal and Presentation Plan

Plan the curated assets that will introduce the collection, so the first impression does the art justice.

Hero banner: which pieces and the layout idea

Character lineup: the range of combinations it will show

Detail crops: which craftsmanship to highlight up close

Concept narrative: the world and attitude in two or three sentences

Curated select grid: how many pieces and the selection criteria

Checklist: Pre-Launch Quality Check

[ ] Every piece confirmed unique with no exact duplicates
[ ] Full grid audited and all flagged pieces fixed by regeneration
[ ] Final trait distribution verified against the designed rarity curve
[ ] Trait sheet built with accurate names and correct percentages
[ ] Rarity ranking computed and the extremes spot-checked
[ ] Reveal assets prepared and the collection documented as a portfolio piece

Your Action Plan

1. Deconstruct at least five collections at full and thumbnail size and write one rule each teaches you
2. Write a complete one-page brief that locks concept, base character, canvas, palette, and lighting model
3. Plan the layer stack and z-order and lock a single anchor point every trait registers against
4. Draw traits in context in the master file, holding palette, line weight, lighting, and detail constant
5. Export every trait as a named transparent PNG into per-category folders with a consistent naming convention
6. Assign tiered rarity weights and confirm your rarest traits are also your strongest art
7. Run the thumbnail test on real outputs and fix anything that fails to read at 64 pixels
8. Design at least one 1-of-1 piece to portfolio standard while keeping a family resemblance to the set
9. Set exclusion rules, dry-assemble extreme combinations, then generate and audit the full collection in a grid
10. Build an accurate trait sheet and rarity ranking and prepare curated reveal imagery before launch