Side Quest (Solution)

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Side Quest consists of several subpuzzles, each of which accepts some number of feeders (called "inventory items") and produces one or more answers. In this sense, Side Quest is a chain of 29 metapuzzles. Starting with the seven "secret" answers hidden among the regular feeder puzzles, solvers update their inventory in one of two ways:

a. by solving submetapuzzles, many of which produce multiple answers;
b. by replicating one-for-one item trades from actual video games.

At the end of this process, our inventory consists of nothing except the FRIENDS ALONG THE WAY, a riff on the meme "Maybe the real treasure was the friends we made along the way." In this case, it is a hint to look closer at the trade NPCs, each of whom give you a "friendly" wave. Each trader has a canonical name; in order, these are:

NPC Trader	Video Game	Items Exchanged
Adyllis	Romancing SaGa	CYCLONE SHOES ↔ RAINCLOUD ARMLET
Sparkly the Crow	Demon's Souls	TALISMAN OF GOD ↔ COLORLESS DEMON SOUL
Ithir'renne the Fletcher	Dungeon Siege II	BUNDLE OF HARPY FEATHERS ↔ AMAN'LU ORCHID
Dashy	Bug Fables	ROOT CLOTH ↔ RED PAINT
Edmund	Pokémon Sword and Shield	OBSTAGOON ↔ MR. MIME
Orima	Prodigal	SLIME SOAP ↔ SERPENT BRACELET
Fado	The Legend of Zelda: Ocarina of Time	ODD POTION ↔ POACHER'S SAW
Farris	Pokémon X and Y	LUVDISC ↔ STEELIX
Inga (Mrs. Ruul)	The Legend of Zelda: Oracle of Seasons	GHASTLY DOLL ↔ IRON POT
Subrosian Chef	The Legend of Zelda: Oracle of Seasons	IRON POT ↔ LAVA SOUP
Hanneman von Essar	Fire Emblem: Three Houses	CRESTOLOGICAL MYSTERIES ↔ TOME OF COMELY SAINTS

In order, the first letters of the trader's names spell **A SIDE OF FISH**, a fitting end to your Side Quest and a surefire way to bring the penguins back to the (negotiating) table. Solutions to the individual puzzles are provided below. Constructor's notes are provided in context where appropriate. An additional section of constructor's notes appears as an appendix.

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1. Tropical Storms and Battleships
Items Lost: AMIGA ONE, BRUT ZERO
Items Gained: ADVICE BOAT, CYCLONE SHOES

The "intel on the storms" corresponds to the feeders BRUT ZERO and AMIGA ONE. Since this intel was gathered by minesweeping, we solve a Minesweeper puzzle to place storms. The letters B/R/U/T

neighbor 0 storms, while the letters A/M/I/G each neighbor 1 storm. In the solved Minesweeper puzzle (below, left), the letters overwritten by the storms spell CYCLONE SHOES.

Once the storms are placed, we can solve the Battleships puzzle. As the example indicates, the spiraling winds of the storms push the planes off course. The direction of this effect is dictated by the Coriolis effect, as hinted by the inclusion of an equator in the diagram. The solution to the Battleships is given below at right. When read in the given "fleet order", the occupied cells spell ADVICE BOAT.

Minesweeper Data and Storms

Battleships, Depicted in Gray

Construction Notes: As the puzzles were written in reverse solve order, this subpuzzle was the last built. The combination of Minesweeper and Battleships was chosen to produce thematic answers and gave a good excuse to troll solvers by invoking the Coriolis effect.

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2. Item Trade
Items Lost: CYCLONE SHOES
Items Gained: RAINCLOUD ARMLET

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3. Rosetta Stone
Items Lost: CHINUP, LAMB OF GOD, RAINCLOUD ARMLET
Items Gained: QUEEN'S CROWN, TALISMAN OF GOD, WHITE GRUB

Like the real Rosetta stone, we are provided snippets of text in different "languages". These texts can be translated into each other using the Vigenère cipher, known as *le chiffre indéchiffrable*. Based on enumerations, we can guess that the three text snippets are LAMB OF GOD, RAINCLOUD ARMLET, and CHIN UP. The Vigenère keys (of the given lengths) which encrypt LAMBOFGOD as RAINCLOUD and ARMLET as CHINUP are GAWMOGI and CQW, respectively. (Note that some non-trivial confirmation is provided by choosing keys which are shorter than the plaintext and ciphertext strings.)

Once the keys are known, we can decrpyt the final block of text by undoing the encryptions by CQW and GAWMOGI. Together, these act like a 21-letter Vigenère key and recover the plaintext:

Ciphertext: GEMFIZMWRY VSWLAKQTTO EYKWSRUMNK UPKBYNKEUQ JSNWGREPNW SFKDMETWN
Plaintext: YOUREXCAVA TIONYIELDS AQUEENSCRO WNATALISMA NOFGODANDA WHITEGRUB

Construction Notes: One might expect a Vigenère-based meta to use feeders as keys. Here, the feeders are the plaintexts/ciphertexts, which is a bit unusual. I also liked the concept of a double-lock: while the full message is likely uncrackable (given the length of the ciphertext relative to the length of the compound key), statistical attacks on Vigenère should let you crack this meta with 2/3 feeders.

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4. Item Trade
Items Lost: TALISMAN OF GOD
Items Gained: COLORLESS DEMON SOUL

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5. Spymasters/Codenames
Items Lost: ADVICE BOAT, COLORLESS DEMON SOUL
Items Gained: GADOLINITE, HYPOXIA, TEEBALL

This subpuzzle references the boardgame Codenames. The constituent words of the inventory items ADVICE BOAT and COLORLESS DEMON SOUL act as Codename categories and the given numbers indicate the number of elements in each category. The solution to the Codenames grid is shown below:

Categories:
COLORLESS
DEMON
SOUL
ADVICE
BOAT

ACHROMIC	ACHY	NEEDLER	CANDIES	REPLICAS
ROUTER	DETOUR	ANCHORAGES	NERDIEST	GUIDANCE
UPREAR	MARSHES	REDEEMING	CHARCUTERIE	ANIMAS
FUMAROLE	BROMINES	INTERLAID	MENTOR	SOLIDARITIES
SIMIANS	UNCLE	CHIMES	DURIAN	WAN
BROWSING	IMMORAL	TILLER	BRISTLIEST	TRICHINAS
HOBNAIL	HAWSES	TRAINEES	ERRATA	MISSHAPES

This solution reveals two hidden messages. We can read the used/unused cells in each row as 5-bit binary (clued by "bits of information") to produce the answer TEEBALL. In addition, the first letters of the used cells spell ANAGRAM WITH T. Following this instruction, we anagram each word in the grid with T to produce a new grid, which contains several new words from the old categories:

CHROMATIC	YACHT	RELENTED	DISTANCE	PARTICLES
TORTURE	TUTORED	COATHANGERS	TRENDIEST	EDUCATING
RAPTURE	HAMSTERS	REGIMENTED	ARCHITECTURE	STAMINA
FORMULATE	BRIMSTONE	INTERTIDAL	TORMENT	EDITORIALISTS
ANIMISTS	LUCENT	CHEMIST	UNITARD	WANT
BOWSTRING	IMMORTAL	LITTLER	LIBRETTISTS	ANTICHRIST
BIATHLON	SWATHES	REINSTATE	TARTARE	STEAMSHIPS

We extract new answers from the transformed grid using the previous mechanics. Row-by-row 5-bit binary gives the answer HYPOXIA, while the first letters of the used grid words spell YTTERBITE ALIAS, which clues the mineral GADOLINITE.

Construction Notes: COLORLESS DEMON SOUL was locked-in from the start, while ADVICE BOAT was chosen because ADVICE and DEMON paired well in some of the tighter parts of the fill, especially with MENTOR/TORMENT. Construction involved a lot of "Hey, ChatGPT, can you filter these 1000 words and tell me which ones relate to boats?"

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6. Visiting the Library
Items Lost: GADOLINITE, GEOCOCCYX
Items Gained: DUE DATE, THE BOKE OF SAINT ALBANS

The expressions $\alpha = g_{10}$ and $\beta = g_9$ suggest that the feeders here are GADOLINITE and GEO-COCCXYX. The "appropriate numerals" in the puzzle refer to Roman numerals. If we remove all letters except I, V, X, L, C, D, M, these feeders become DLII and CCCX, which represent 552 and 310, respectively. Setting $\alpha = 552$ and $\beta = 310$ gives

$$46\beta^3 + 18\alpha^2 = 1375870672.$$

Together with 978, we form an ISBN for a book called THE BOKE OF SAINT ALBANS.

The "appropriate decimals" in the puzzle refer to the Dewey Decimal System. A book about the GADOLINITE would lie under 549 (Mineralogy), while a book about the genus GEOCOCCYX would lie under 598 (Aves). Though Dewey Decimal allows for further specificity, the use of the floor functions ($\lfloor\alpha\rfloor$ and $\lfloor\beta\rfloor$) means that we may as well use $\alpha = 549$ and $\beta = 598$. This gives

$$7\beta^3 - 7\beta^2 - 21\alpha\beta - 8\alpha + 3 = 1487528385.$$

We're told to interpret this number in base-26. This gives the digits 4, 21, 5, 4, 1, 20, 5, which converts to DUE DATE alphanumerically.

Construction Notes: The title THE BOKE OF SAINT ALBANS is very long, so we thought it convenient to obtain via ISBN. This introduced a bunch of numbers and the numeral/decimal mechanics. The construction of linear combinations of powers of α and β with small coefficients was done by turning the problem into a short vector problem in a lattice. An early version of this puzzle used the feeder COCCYX, which was changed to improve the secret half of the finale.

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7. A Book in Your Collection
Items Lost: THE BOKE OF SAINT ALBANS
Items Gained: BUNDLE OF HARPY FEATHERS

The nine words listed in the main body of this puzzle are all collective nouns from THE BOKE OF SAINT ALBANS. We index from the singular form of the collective noun using the given indices:

#	Expression	Indices	Extract	#	Expression	Indices	Extract
1	CITY of BADGERS	1	B	6	BLUSH of BOYS	3	Y
2	MUTE of HOUNDS	3–5	UND	7	BUSINESS of FERRETS	1–2	FE
3	LEAP of LEOPARDS	1–3	LEO	8	CHARGE of CURATES	4–5	AT
4	EXECUTION of OFFICERS	2	F	9	FETE of USHERS	3–6	HERS
5	MELODY of HARPISTS	1–4	HARP				

The indexed letters spell BUNDLE OF HARPY FEATHERS.

Construction Notes: A common bit of advice when you're stuck on a puzzle is to shove all the keywords into Google. We specifically avoided well-known collective nouns like *parliament* and *murder* with this fear in mind. The most well-known collective we used was *business* – fortunately, adding the keyword "business" to a query does nothing except give you more ads.

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8. Item Trade
Items Lost: BUNDLE OF HARPY FEATHERS
Items Gained: AMAN'LU ORCHID

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9. Drawn-Out Mission

Items Lost: AMAN'LU ORCHID, DICED TOMATO
Items Gained: BLACK COFFEE, GI JOE, ROOT CLOTH

The expression 6 **6** - 5 **6** = (R,G,B) suggests that the two feeders for this puzzle end in six-letter color words and lets us place AMAN'LU ORCHID and DICED TOMATO. The standard hex values (e.g. in the X11 web colors) for orchid and tomato are #DA70D6 and #FF6347, respectively. The hexadecimal arithmetic (DA, 70, D6) − (FF, 63, 47) gives (R,G,B) = (-25, 0D, 8F). We then compute

$$(R+25,\ G-0D,\ B-8F) = \#000000, \qquad (R+E5,\ G+F2,\ B+5F) = \#C0FFEE.$$

The hex value #000000 corresponds to BLACK and the hex value #C0FFEE can be parsed as COFFEE. We concatenate these to form BLACK COFFEE.

We next consider the grid of letters. We draw a path through the grid from the entrance to the mailbox, allowing a step whenever the current and neighboring cell appear as "neighboring letters" in either AMAN'LU ORCHID or in DICED TOMATO. The "drawn-out" shape of the unique non-backtracking path spells GI JOE. Per flavortext, we also consider dead ends. Reading in encounter order along the main path, these dead ends spell ROOT CLOTH.

R	C	E	H	D	T	A	N	L	U	O	S	T	D	E	D	N	A	T
O	S	R	P	I	H	M	I	N	A	U	O	A	N	C	T	L	📬	O
T	R	U	L	N	C	O	S	G	T	L	R	T	L	H	O	N	O	M
D	C	L	M	A	E	U	I	H	S	U	C	D	O	I	D	L	H	C
I	H	N	O	N	D	O	D	C	R	O	P	T	H	C	T	U	O	R
D	T	A	G	A	T	L	E	D	T	A	M	O	I	D	E	D	E	C
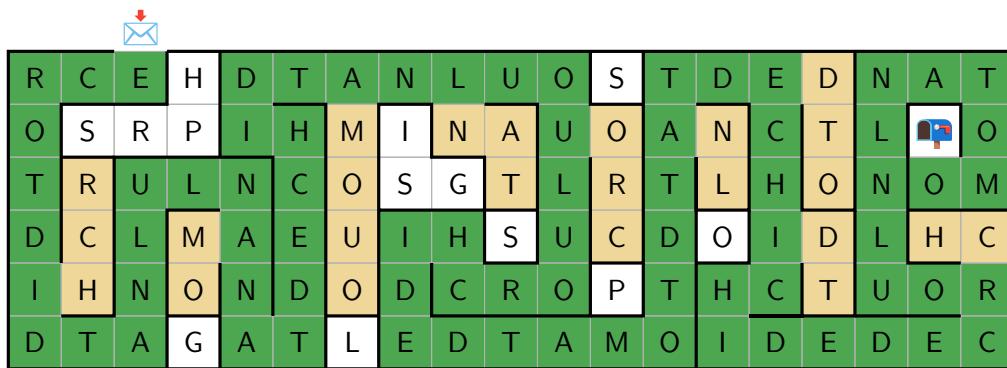
Construction Notes: We needed to introduce AMAN'LU ORCHID as a feeder, and it seemed interesting to use the fact that orchid is a color. This narrowed the field of complementary feeders, and DICED TOMATO was chosen for brevity and letter distribution. (The two feeders need to produce a well-connected graph of bigrams to keep the path through the maze unpredictable.) The runner-up to DICED TOMATO was CHLORINATED LIME.

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10. Item Trade

Items Lost: ROOT CLOTH
Items Gained: RED PAINT

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11. Masyu

Items Lost: BLACK COFFEE, RED PAINT, WHITE GRUB
Items Gained: HOUSEHOLDS, OBSTAGOON, WASPS' NEST

Our first task is to create a Masyu, by marking certain cells as black or white. The answers BLACK COFFEE and WHITE GRUB suggest that we add black cells to each C/O/F/E and white cells to each G/R/U/B. For later use, we also color red each P/A/I/N/T. The colored grid and solution to the Masyu determined by the black and white cells are given below:
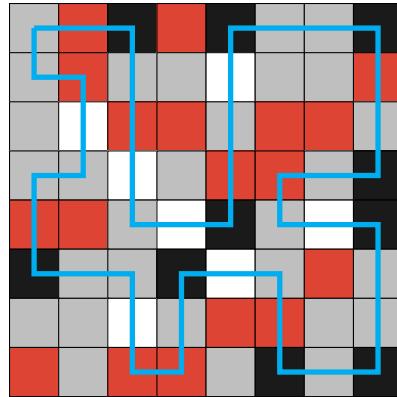
The extraction methods for this puzzle are described on the puzzle page, so we just need to execute:

○ The grid cells not visited by the Masyu path spell ADD SKITTY AND YAMASK. The National Pokédex numbers of Skitty and Yamask are 300 and 562, respectively; adding these gives the National Pokédex number for our first answer, OBSTAGOON.

○ Following the path clockwise from upper left and recording the letter in the path cell two cells before each red cell spells the message HOUSEHOLDS.

○ Finally, the pattern of white/black/red (as 0/1/2) gives 212 001 201 121 201 112 012 201 202, which is ternary for 23 1 19 16 19 14 5 19 20. This gives WASPS' NEST, alphanumerically.

Construction Notes: Masyu seemed like a good candidate for a logic puzzle because white and black cells made a good counterpoint to RED PAINT, which needed to appear as an upcoming feeder. We tried to incorporate a variety of extract methods. The most constraining is the ternary extraction, since most ternary strings won't lead to valid Masyus. Note that OBSTAGOON can be extracted without RED PAINT. There are several of these partial-in/partial-out constructions in Side Quest.

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12. Item Trade
Items Lost: OBSTAGOON
Items Gained: MR. MIME

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13. Snippets of Conversation
Items Lost: DUE DATE, HOUSEHOLDS, MR. MIME, TEEBALL
Items Gained: BELFRY, JAWBONES

In this puzzle, the syllables of four inventory items are permuted to complete crossword-style clues. In some instances (clued by the ear emoji), homophoning is allowed:

DUE DATE	→ DUE, DATE	DATE I'M DO TEE (DAYTIME DUTY)	→ JOB
HOUSEHOLDS	→ HOUSE, HOLDS	HOLDS	→ OWNS
MR MIME	→ MISS, TERM, I'M	TERM for MISS at BALL	→ BELLE
TEEBALL	→ TEE, BALL	on the HOUSE	→ FREE

Finally, the puzzle indicates that we group JOB+OWNS and BELLE+FREE and homophone again. This yields the two answers JAWBONES and BELFRY.

Construction Notes: This puzzle arose from the observation that both JAWBONES and BELFRY could be mad-gabbed. It also gave us an excuse to mad-gab MR. MIME. We wanted to minimize amount of Pokémon-specific knowledge needed to solve Side Quest.

14. Measure Up to Scientific Minds
Items Lost: JAWBONES
Items Gained: ETIENNE BOILEAU, LACTOBACILLI

If we place JAWBONES into the 8-letter blank, we see that each highlighted cell (or pair of adjacent cells) gives an abbreviation for an SI unit named after a scientist:

These units are the Joule (J), Ampere (A), Weber (Wb), Newton (N), and Siemens (S). In the second set of colored cells, we interpret the given numbers as indices and index into the name of the unit matching the given color. This yields ETIENNE BOILEAU, a Parisian magistrate from 13th century.

For the second half of this puzzle, we multiply and divide the indicated SI units to produce additional SI units. Indexing into the resulting unit produces LACTOBACILLI.

Computation	Unit	Index	Extract
$A \cdot S^{-1}$	VOLT	3	L
$Wb \cdot S^2 \cdot A^{-1}$	FARADAY	2	A
$Wb \cdot S \cdot A^{-1}$	SECOND	3	C
$J \cdot N^{-1}$	METER	3	T
S^{-1}	OHM	1	O
$Wb \cdot S$	COULOMB	7	B
$A^2 \cdot S^{-1}$	WATT	2	A
$N^3 \cdot J^{-2}$	PASCAL	4	C
$S \cdot A^2 \cdot Wb^2 \cdot J^{-2}$	SIEMENS	2	I
$Wb \cdot N^2 \cdot S^2 \cdot A^{-3}$	KILOGRAM	3	L
$A \cdot Wb$	JOULE	4	L
$S \cdot A \cdot Wb \cdot J^{-1}$	SIEMENS	2	I

Construction Notes: This puzzle was developed as a flexible shell that could be used to index out one of the longer answers: ETIENNE BOILEAU. Boileau had tangential connection to standardized weights and measures, which inspired the SI theme. An early version indexed ETIENNE using the scientist's first names and BOILEAU using their last names. We discarded this for the sake of simplicity. The understudy to JAWBONES was BAGGY PANTS.

15. Life in a Petri Dish
Items Lost: LACTOBACILLI
Items Gained: SLIME SOAP, TYROTOXISM

We determine that LACTOBACILLI is a reasonable feeder based on flavor alone. Shading the cells in the grid which contain letters in LACTOBACILLI gives the leftmost grid below. The interjection "Golly" in flavortext and the word LIFE in the cell grid both clue John Conway's Game of Life. We run the cellular automaton forward one generation to produce the grid at center below. The highlighted cells give the answer TYROTOXISM. If we continue running the cellular automaton, it eventually stabilizes. The final state (below, right) gives the second answer SLIME SOAP.

N	L	E	T	Y	B	T
R	S	L	I	F	E	H
I	O	M	B	T	O	C
X	E	I	S	U	R	M
E	C	G	R	S	O	E
N	K	S	H	A	P	H

Initial State

N	L	E	T	Y	B	T
R	S	L	I	F	E	H
I	O	M	B	T	O	C
X	E	I	S	U	R	M
E	C	G	R	S	O	E
N	K	S	H	A	P	H

Next State

N	L	E	T	Y	B	T
R	S	L	I	F	E	H
I	O	M	B	T	O	C
X	E	I	S	U	R	M
E	C	G	R	S	O	E
N	K	S	H	A	P	H

Stable State

Construction Notes: Running a cellular automaton is easy. Running one in reverse is very, very difficult. To construct this puzzle, we tested random states to see if they would evolve into suitable arrangements to spell TYROTOXISM and SLIME SOAP. This mostly worked. In the end, it was necessary to find additional predecessors to the state labelled "Next State" above. This was done using a SAT solver.

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16. Item Trade
Items Lost: SLIME SOAP
Items Gained: SERPENT BRACELET

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17. Directions Through the Mire
Items Lost: QUEEN'S CROWN, SERPENT BRACELET, WASPS' NEST
Items Gained: REFLUX, SHIELD, YODA

The given enumerations (7 8), (5 4), and (6 5) match the feeders SERPENT BRACELET, WASPS' NEST, and QUEEN'S CROWN. Each of these feeders has six letters equal to N, E, W, or S. (The significance of this property is clued by compass icons near the enumerations.) After completing the crossword puzzle, we can plot a course following these compass directions (SEENEE, WSSNES, EENSWN) to form a path in the grid. The following diagram shows the completed crossword grid and (per flavortext) a heatmap of how often cells are visited.

A	R	M	Y	D	E	F
C	A	R	O	T	I	D
L	U	X	U	S	D	A

□ Cells visited 0x
■ Cells visited 1x
■ Cells visited 2x

In grid order, the unvisited cells spell REFLUX and the cells visited two times spell YODA. To find our third answer, we consider the crossword clues, which are suspiciously awkward. We find six words in the clues which are synonyms of the six words which make up the feeder answers (as clued by "a few words trigger déjà vu"). In path order, the first letters of these synonyms spell SHIELD.

SERPENT	⤳	**S**NAKE
BRACELET	⤳	**H**ANDCUFFS
WASPS'	⤳	**I**NSECT
NEST	⤳	**E**YRIE
QUEEN'S	⤳	**L**ADY
CROWN	⤳	**D**IADEM

Construction Notes: This puzzle was inspired by the observation that SERPENT'S BRACELET contains a reasonable density of cardinal directions. (The swamp theme was inspired by YODA's home, Dagobah.) The 3x7 grid was originally going to be filled with random characters. Once we were convinced we'd be able to construct a crossword in the grid, we added the constraint on the clues to hide another answer.

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18. Treatment Plan
Items Lost: HYPOXIA, REFLUX, TYROTOXISM
Items Gained: BOOK OF THOTH, BUG, ODD POTION

Three of our current inventory items describe medical conditions: HYPOXIA, REFLUX, and TYROTOXISM. (As further confirmation, these match the lengths of the provided boxes.) HYPOXIA is a condition marked by inadequate oxygen. REFLUX is a general term for when fluid flows in the wrong direction. TYROTOXISM is a form of food poisoning caused by milk products (especially cheese). We can "cure" the string NITPDRUCDDADUOGHTHTFOKB of these issues in the following order:

1. Cure REFLUX. We reverse the string: BKOFTHTHGOUDADDCURDPTIN.
2. Cure TYROTOXISM. We remove the substrings GOUDA and CURD: BKOFTHTHDDPTIN.
3. Cure HYPOXIA. Reoxygenate, by inesrting some O's: BOOKOFTHOTHODDPOTION.

This produces two answers: BOOK OF THOTH and ODD POTION. To find the final answer, we place the feeders in the cells provided:

N	I	T	P	D	R	U	C	D	D	A	D	U	O	G	H	T	H	T	F	O	K	B
T	Y	R	O	T	O	X	I	S	M	H	Y	P	O	X	I	A	R	E	F	L	U	X

Note that each medical condition contains an X. The letters aligning with the X's spell our third answer, BUG, when read in treatment order.

Construction Notes: The answers BUG and ODD POTION suggested a medical theme, originally pitched as "decipher your doctor's terrible handwriting." BOOK OF THOTH was included as a nod to the trope of wisdom beyond comprehension. The reference to handwriting was distracting and eventually removed.

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19. Item Trade
Items Lost: ODD POTION
Items Gained: POACHER'S SAW

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20. Slice and Cook
Items Lost: BELFRY, ETIENNE BOILEAU, POACHER'S SAW
Items Gained: FRENCH, RAMSAY

The feeder answers BELFRY, ETIENNE BOILEAU, and POACHER'S SAW contain the substrings FRY, BOIL, and POACH, three methods for cooking eggs. If we fill in the incomplete clues from the puzzle with FRIED EGG, BOILED EGG, and POACHED EGG, we produce three well-known dishes. Indexing with the provided indices spells RAMSAY.

Description	Dish	Indices	Extract
Fried egg with salsa	HUEVOS RANCHEROS	7,8	R,A
Boiled egg with spring water	ONSEN TAMAGO	8,3	M,S
Poached egg with smoked salmon	EGGS ROYALE	8,7	A,Y

To produce a second answer, we "slice" our feeder answers, taking positions 4–5. Using the order from the previous step, we obtain the letters FR (from BELFRY), EN (from ETIENNE BOILEAU), and CH (from POACHER'S SAW). These spell FRENCH.

Construction Notes: In general, one writes a good meta by first finding flavorful or interesting mechanics and then finding feeders to realize your vision. We're not so lucky in Side Quest – phrases like POACHER'S SAW *need* to be feeders, whether we want them or not. In this case our only recourse is to design the whole meta around the feeder. Here, we fixate on two facts: one can POACH eggs, and CH appears in both FRENCH and POACH.

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21. A Suitable Place to Rest
Items Lost: BOOK OF THOTH, FRENCH, STUTTGART CARDS
Items Gained: FALCATA, HARTS, LUVDISC, PAPER DOLL

Three of our current inventory items define suited decks of cards: BOOK OF THOTH, FRENCH, and STUTTGART CARDS. We arrange the decks alphabetically by rows and the suits alphabetically within each row:

	⟵ A–Z ⟶				
BOOK OF THOTH	CUPS	DISKS	SWORDS	WANDS	↑
FRENCH	CLUBS	DIAMONDS	HEARTS	SPADES	A–Z
STUTTGART CARDS	DUCKS	FALCONS	HOUNDS	STAGS	↓

We interpret the orange cell as both red and yellow. This gives two cells of each primary color. For each color, we find an object in the given category which fits both suit descriptors as well. The Pokémon matching both HEARTS and DISKS is LUVDISC. The "Herd" Animals? matching both HEARTS and STAGS is HARTS. (Here, "Herd" and the funny-clue-indicator is meant to suggest "heard", i.e. HEARTS are "heard" as HARTS.) Finally, the Iron Age object matching both FALCONS and SWORDS is the FALCATA. (The FALCHION is another "falcon sword," though not of the Iron Age.)

A fourth answer maybe be obtained by indexing into the suit names using the indices given below the table on the puzzle page. This spells PAPER DOLL.

Construction Notes: This puzzle was proposed as a means to generate LUVDISC, and the STUTTGART CARDS were then added as a way to simultaneously produce HARTS. To finish the trio, we added a cryptic clue to give FALCATA a home. Finding a home for HARTS here cemented HARTS and RAMSAY as inventory items – before this, we were leaning towards the pair HARPY and RAMSES.

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22. Item Trade
Items Lost: LUVDISC
Items Gained: STEELIX

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23. Someone's PC
Items Lost: PAPER DOLL, STEELIX
Items Gained: GHASTLY DOLL, PAPER LANTERN

The expression Someone's PC refers to Pokémon. This helps us identify STEELIX as a potential feeder. Once we've identified PAPER DOLL as the second feeder, we simply follow the directions:

Instruction	Annotation
`x = ____.clone()`	Clone STEELIX, so x is [STEELIX, STEELIX].
`x[0].shift(-37)`	Shift one part -37 (by National Dex) to get LANTURN.
`x[1].devolve().shift(-3)`	Devolve the other part into ONIX, then shift -3 to GASTLY.
`x.homophone()`	Homophone, so that x is [LANTERN, GHASTLY].
`y = ____.split()`	Split PAPER DOLL, so y is [PAPER, DOLL].
`[y[0]+x[0], x[1]+y[1]]`	Recombine the parts as [PAPER LANTERN, GHASTLY DOLL].

This produces the answers GHASTLY DOLL and PAPER LANTERN.

Construction Notes: A version of this puzzle (vague directions which transform Gastly into Ghastly Doll) appeared in the very first proof-of-concept for Side Quest. This subpuzzle was originally themed as a witch's incantation; the current version with pseudocode was considered less confusing.

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24. Item Trade
Items Lost: GHASTLY DOLL
Items Gained: IRON POT

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25. Item Trade
Items Lost: IRON POT
Items Gained: LAVA SOUP

Construction Notes: The item trading in Side Quest draws inspiration from the chains of trades appearing in games like The Legend of Zelda. Unfortunately, most multi-trade chains are unusable because of our constraints on the names of the trade NPCs. This is the only back-to-back trade in Side Quest. It's near the end, which is great for two reasons: it helps cluster more extraction letters near the end of the solve path, and it lets us ~~troll solvers~~ subvert expectations after repeatedly *not* chaining our chainable trades earlier on.

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26. Cryptic Instructions
Items Lost: FALCATA, LAVA SOUP, PAPER LANTERN
Items Gained: ARRIVAL, ATREYU, FAQ

This puzzle consists of three fill-in-the-blank cryptic clues, which can be solved after inserting the missing inventory items:

○ **LAVA SOUP has red grit inside, forming film (7)**. SOUP is an anagram indicator for LAVA and HAS is a containment indicator: we insert R (from RED) and RI (the inside of GRIT) into an anagram of LAVA to produce the film ARRIVAL.

○ **Metal band around fourth PAPER LANTERN you unevenly cut out (6)**. Around the fourth letter of PAPER (E), we place ATRYU, the even letters of LANTERN YOU (having cut out the odd letters). The answer is ATREYU, a metal band.

○ **Helpful page brings FALCATA sheath to queen (3)**. The sheath (outside part) of FALCATA is FA. We adjoin this to Q, an abbreviation for QUEEN, to form FAQ, a type of help page.

Construction Notes: This subpuzzle isn't really a meta, in that the three feeders don't really mingle before producing the three answers. We decided to ignore this problem because the cryptics helped bridge the gap between the endgame state and the more interesting submetas earlier in the solve path.

27. Expand Upon Your Favorite Topics
Items Lost: FAQ, SHIELD
Items Gained: CRESTOLOGICAL MYSTERIES

Two of the inventory items, FAQ and SHIELD, are abbreviations. These expand as **F**requently **A**sked **Q**uestions and **S**trategic **H**omeland **I**ntervention **E**nforcement **L**ogistics **D**ivision. Indexing (treating the decimals as two numbers, one as an index into SHIELDFAQ and the other as an index into the word corresponding to the letter) spells CRESTOLOGICAL MYSTERIES.

Construction Notes: CRESTOLOGICAL MYSTERIES is a book about heraldric crests, i.e. the designs on shields. One presumes that these CRESTOLOGICAL MYSTERIES could be answered simply by reading the SHIELD FAQ. The use of acronyms in this puzzle was inspired by a rejected concept for the secret meta. (See the endnotes for more context.)

28. Item Trade
Items Lost: CRESTOLOGICAL MYSTERIES
Items Gained: TOME OF COMELY SAINTS

29. A Reward Greater Than the Sum of Its Parts
Items Lost: ARRIVAL, ATREYU, BUG, GIJOE, HARTS, RAMSAY, TOME OF COMELY SAINTS, YODA
Items Gained: FRIENDS ALONG THE WAY

The final eight inventory items can be slotted into the given answer bank. We convert letters to numbers, add and subtract, then convert back to letters. A unique placement avoids carries and negative digits. The fabulous reward at the end of our quest is revealed to be the FRIENDS ALONG THE WAY.

	A	R	R	I	V	A	L	A	T	R	E	Y	U	H	A	R	T	S
+	Y	O	D	A	G	I	J	O	E	B	U	G	R	A	M	S	A	Y
−	T	O	M	E	O	F	C	O	M	E	L	Y	S	A	I	N	T	S
=	F	R	I	E	N	D	S	A	L	O	N	G	T	H	E	W	A	Y

Construction Notes: This puzzle was proposed as a tongue-in-cheek application of the phrase "greater than the sum of its parts". With some cryptanalysis, this puzzle can probably be solved with TOME OF COMELY SAINTS and three other feeders. Fortunately, the answer FRIENDS ALONG THE WAY isn't so useful until you complete a critical mass of trades, and these are spread throughout Side Quest.

Additional Construction Notes:

The first proposal for this meta drew inspiration from the expression "tip of the iceberg" with a mechanic using expanded acronyms. (One small part of our data set was recycled in subpuzzle 27.) This idea didn't really go anywhere, with one issue that it didn't really feel "epic" enough to develop. (We also coopted some mechanics from this draft to write Meta on the Dancefloor.) A second proposal,

themed around exploring an ice cave under the research station, made it a bit farther into development before it, too, was abandoned.

One thing we were hoping to accomplish with this meta (and the secret content in general) was to entertain advanced solvers who found the daily puzzles too easy. We started thinking about the daily puzzles and metas as a sort of "main plot," while secret content took the form of "side quests." These vague ideas slowly crystallized into the RPG-inspired web of minipuzzles that would become Side Quest. The idea of metapuzzles feeding into metapuzzles in a complicated chain was also partially inspired by *The Shell Game* from MITMH 2025.

Side Quest was written as a sort of six-week fever dream, with typical minipuzzles taking a few days to write. Construction was complicated by the unusual specifications of the submetas. It turns out that metapuzzles are hard to write when you:

- pre-determinate a large proportion of your feeder answers
- extract multiple answers from the same feeders
- use a small number of feeders (so you can't just get an answer by taking one letter from each)
- "unlock" every piece at once (so you have to design against overly-effective back/side-solving)

Meta design in this ridiculous setting was a big part of what made Side Quest so fun to write.