

# CRYPTOGRAM CRACKING: ONE-PAGE REFERENCE (ARISTOCRAT / SIMPLE SUBSTITUTION)

**Best for:** puzzles where spaces and punctuation are preserved (and each symbol = 1 letter).

## QUICK START

- Confirm it is a simple substitution:  
spaces/punctuation stay, symbols repeat like letters.
- Write the ciphertext with clear word breaks;  
circle repeated words/patterns.
- Start with 1-letter, then common 2-letter and 3-letter words.
- Pencil in guesses; keep the key one-to-one (no letter reused).

## STEP 1 - IDENTIFY CIPHER TYPE (FAST CLUES)

What you see	Likely type
Numbers only	Binary / A1Z26 / number code
Letters shifted	Caesar / ROT
Letters + keyword feel	Vigenere / polyalphabetic
Symbols/glyphs with spaces kept	Aristocrat (use steps below)

**Warning:** if the message is under ~28 characters, multiple solutions can fit.

Gather more text using the same key if possible.

## STEP 2 - WORD PATTERNS (HIGHEST PAYOFF)

Pattern	What to try first
1-letter	A, I
2-letter	OF, TO, IN, IT, IS, AS, AT, ON, BY, WE, US, HE, ME, MY
3-letter	THE, AND, FOR, ARE, BUT, NOT, YOU, WHO, WAS, HAS, OUT, HER, HIS, OUR

**Common starts:** T-, A-, I-, S- | **Common ends:** -E, -S, -D, -T | **Common ending chunk:** -ING

**Apostrophes:** 'S, N'T, 'D, 'M, 'RE, 'LL, 'VE, O'.

- it's, he's, she's, let's, who's, that's, what's, here's, here's, there's, world's
- don't, can't, isn't, won't, ain't, didn't, wasn't, aren't, hasn't, hadn't, doesn't, haven't, weren't, mustn't, needn't, couldn't, wouldn't, shouldn't
- I'd, he'd, we'd, it'd, you'd, she'd, who'd, they'd, that'd
- I'm
- we're, you're, they're, there're
- I've, we've, you've, who've, they've, must've, could've, would've, should've
- I'll, we'll, he'll, it'll, you'll, she'll, who'll, they'll, that'll, there'll
- o'clock

## KEY TEMPLATE IN ALPHABETIC ORDER (FILL IN AS YOU GO)

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

## KEY TEMPLATE IN LETTER-FREQUENCY ORDER (FILL IN AS YOU GO)

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

## STEP 3 - FREQUENCY

Letter frequency (rough): ETAOINSHRDLCUMWFYGYPBVKJXQZ

Common bigrams: TH HE IN ER AN RE ON AT EN ND ST ES

Common trigrams: THE AND ING ENT ION TIO HER HAT

Double letters: LL EE SS OO TT FF RR NN

**Tool tip:** use GlyphGrid Analysis to count symbols fast.

Let the computer count; you do the guessing!

## STEP 4 - PUZZLE-SOLVING SPRINT

- Every word needs vowels (A E I O U, sometimes Y). If a word is all consonants, your mapping is probably wrong.
- H often follows T, S, W, or C. Q is almost always followed by U.
- Solve the most-constrained word next (the one with the most known letters). Propagate those letters everywhere.
- Use prefixes/suffixes to guess whole chunks, then verify across the message.
- If the plaintext looks impossible, backtrack one assumption at a time.

Common prefixes	Common endings
RE-, UN-, IN-, DIS-, PRE-, CON-/COM-	-ING, -ED, -LY, -TION, -MENT, -NESS

Starter combos:

- TH- (THE/THAT/THIS/ THEM/THEN/THERE/ THESE/ THEIR/THING)
- WH- (WHAT/WHEN/ WHERE/ WHICH/WHO)
- IN- (IN/INTO/INSIDE)

Probably wrong if:

- impossible letter combos (QQ, JJ, VV)
- too many rare letters
- words with no vowels

## STEP 5 - FINAL VERIFICATION

- Read the full decrypted text as normal English. Does it flow like a quote/sentence?
- One-to-one key: no symbol maps to 2 letters, and no letter is assigned to 2 symbols.
- No leftover symbols; punctuation and apostrophes make sense.
- If the message is long and coherent (>~28 chars), it is almost certainly correct.

## IF YOU'RE STUCK

- Find the shortest repeated word (often THE/AND/TO/OF).
- Pick one guess to test (like THE), then check every place it appears.
- List unused letters; try them in the few remaining blanks.