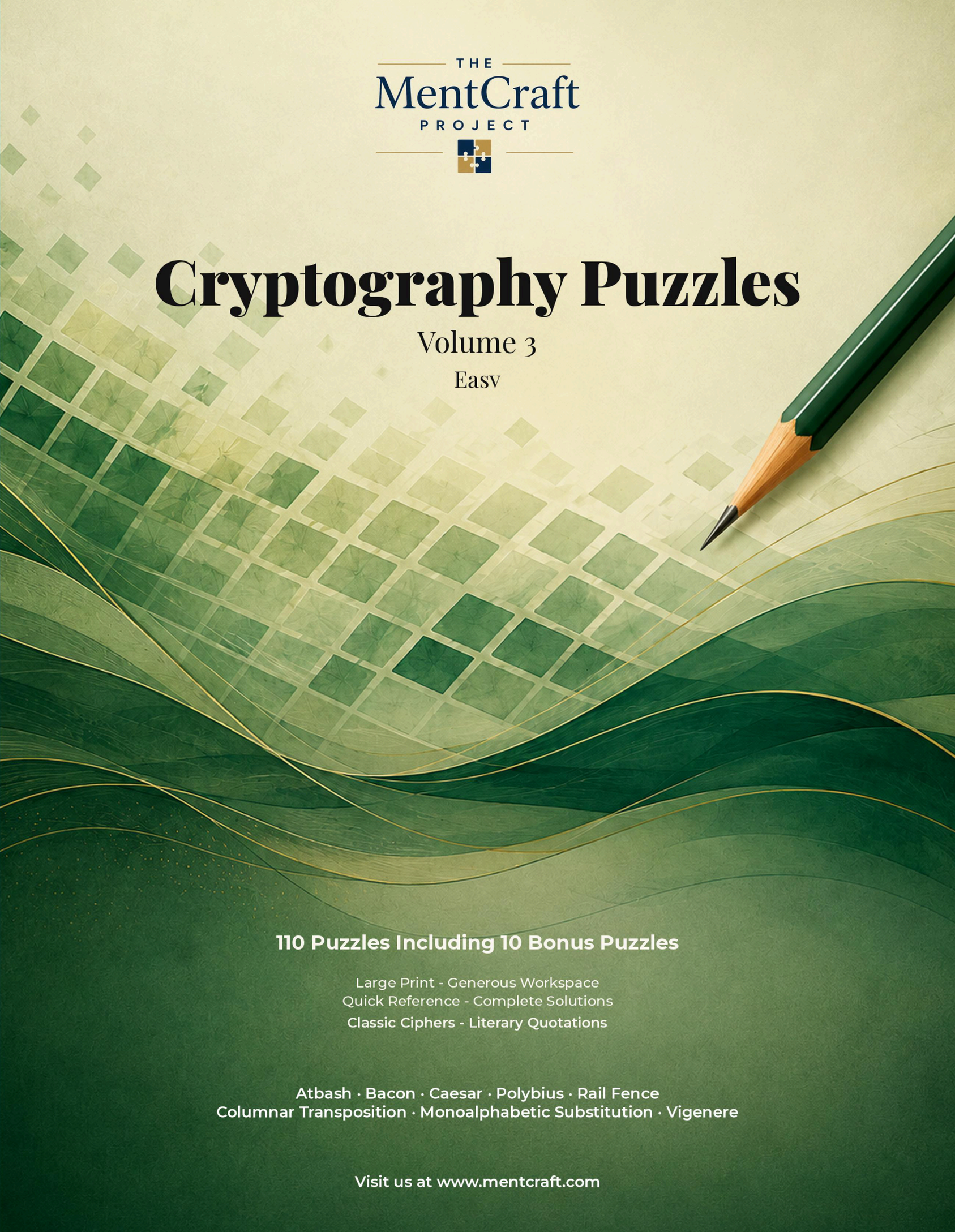
THE MentCraft PROJECT

Cryptography Puzzles

Volume 3

Easy



110 Puzzles Including 10 Bonus Puzzles

Large Print - Generous Workspace
Quick Reference - Complete Solutions
Classic Ciphers - Literary Quotations

Atbash · Bacon · Caesar · Polybius · Rail Fence
Columnar Transposition · Monoalphabetic Substitution · Vigenere

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Cryptography Puzzles

Easy - Volume 3

110 Puzzles Including 10 Bonus Puzzles

For David

My son, you have a wonderful mind.

Always remain curious and never assume you know everything.

How to Get the Most Out of This Book

Every MentCraft collection is built on a simple belief: a mind that's challenged regularly stays sharper, more curious, and more capable. Different puzzles exercise different mental muscles, and Cryptography has a special place in that family: it combines pattern recognition, language awareness, and logical reconstruction in the satisfying process of revealing a hidden message.

Each puzzle gives you the cipher family, the information needed to decode it, the encrypted message, and a lined workspace. Depending on the cipher, that information may be a reversed alphabet, a substitution table, a coordinate square, a shift, a keyword, a column order, or a rail count. Read the instruction first and use the displayed key or reference as you work.

This Easy volume contains 100 main puzzles followed by 10 bonus puzzles. Essential transformation parameters are disclosed, so the challenge is careful decoding rather than guessing how the cipher works. Work at your own pace, use the workspace freely, and turn to the solutions only when you need them.

The messages in this collection are literary quotations selected from classic works. In the solutions section you will find the restored quotation together with its author and source work, allowing the decoding exercise to end with the complete text in its natural reading form.

Cipher Quick Reference

Use these notes as a practical guide to the four cipher families shown on this page.

Atbash Cipher

Atbash is one of the simplest substitution ciphers because its alphabet is created by reversing the ordinary alphabet. A pairs with Z, B with Y, C with X, and the pattern continues inward until every letter has exactly one partner. The mapping is symmetrical: if A becomes Z when a message is encrypted, Z becomes A when the message is decoded. There is no changing key and no arithmetic to remember.

To solve an Atbash puzzle, work letter by letter with the reversed alphabet shown on the page. Keep spaces in place, replace every encrypted letter with its partner, and write the result in the workspace. Repeated letters always map the same way, so emerging word patterns provide a useful accuracy check. In this Easy volume the complete alphabet pairing is displayed whenever Atbash is used.

Bacon Cipher

The Bacon cipher represents each letter with a group of five symbols made from only A and B. In the 26-letter version used in this book, A begins with AAAAA and the sequence advances systematically until Z. The five-position pattern functions much like a compact binary code: changing even one position changes the letter represented. A normal sentence therefore becomes a distinctive stream of short A/B groups.

Decode one five-symbol group at a time by finding it in the supplied table and writing the recovered letter below or in the workspace. Slashes preserve the original word divisions so you can see where one word ends and the next begins. Because the full 26-letter chart is printed on every Bacon puzzle page, the task is careful lookup and transcription rather than memorizing the code.

Caesar Cipher

A Caesar cipher shifts every alphabet letter by the same fixed number of positions. If the encryption shift is seven, for example, each plain letter is moved seven places forward, wrapping from Z back to A whenever necessary. The size of the shift stays constant throughout a message, which is why Caesar is a classic introduction to systematic letter transformation and modular alphabet arithmetic.

The Easy puzzles disclose the shift and tell you to move each encrypted letter backward by that amount. Spaces remain unchanged, so you can decode naturally from left to right. When you reach the beginning of the alphabet, continue from the end. As recognizable words appear, use them to check that you have applied the same shift consistently to every letter.

Columnar Transposition

Columnar transposition changes the order of letters without replacing the letters themselves. The plaintext letters are written row by row beneath a keyword, creating a rectangular or nearly rectangular grid. The columns are then read in the alphabetical order determined by the keyword. The resulting ciphertext therefore contains exactly the same letters as the message, but their positions have been rearranged.

For Easy puzzles the keyword, the column read order, the original letter count, and the word lengths are all disclosed. Rebuild the columns with the correct lengths, place the ciphertext back into those columns, and then read across the rows to recover the letter sequence. Finally restore the spaces using the supplied word-length pattern. Keeping columns carefully aligned is the key to avoiding cascading errors.

Cipher Quick Reference

Use these notes as a practical guide to the four cipher families shown on this page.

Monoalphabetic Substitution

A monoalphabetic substitution cipher assigns one fixed code letter to every plain letter for the entire message. Unlike Caesar, the substitution alphabet is not produced by one uniform shift: A might become Q, B might become M, C might become T, and so on. The important rule is consistency. Once a plain letter has a code partner, that pairing never changes within the puzzle.

These Easy puzzles show the complete plain-to-code alphabet. To decode, locate an encrypted letter in the Code rows and read the corresponding letter from the Plain rows. Spaces are preserved, and repeated code letters always produce repeated plain letters. The complete mapping removes the need for frequency analysis while still giving practice with the central idea behind classical substitution cryptograms.

Polybius Cipher

A Polybius square converts letters into numeric coordinates. The version used here is a five-by-five grid with rows and columns numbered 1 through 5. Each letter is identified by two digits: the first gives the row and the second gives the column. Because twenty-six letters must fit into twenty-five cells, I and J share one square, following the traditional convention used in many Polybius systems.

Read each coordinate pair as row first, then column, and locate that cell in the displayed square. Slashes preserve the word divisions. The quotations assigned to Polybius puzzles are chosen so the shared I/J cell does not create an ambiguous intended answer. Working steadily from pair to pair turns the numeric stream back into letters, and the visible word boundaries help you verify the result as it develops.

Rail Fence Cipher

Rail Fence is a transposition cipher rather than a substitution cipher. The message letters are written diagonally down and up across a fixed number of horizontal rails, forming a repeated zigzag. The rows are then read one after another to produce the ciphertext. Since the alphabet itself is never changed, every letter in the encrypted message also appears somewhere in the original message.

The Easy puzzles disclose the number of rails, the number of message letters, and the original word lengths. Recreate the zigzag positions, determine how many ciphertext letters belong on each rail, fill those rail positions in order, and then follow the zigzag path to recover the original letter sequence. Restore the spaces from the supplied word-length pattern after the transposition has been reversed.

Vigenere Cipher

Vigenere uses a keyword to control a repeating sequence of Caesar-style shifts. Each key letter corresponds to a different alphabet shift, so neighboring plaintext letters can be transformed by different amounts. When the end of the keyword is reached, the key begins again and repeats until all message letters have been processed. Spaces do not consume key letters in the convention used in this book.

For Easy puzzles the keyword is printed on the page. Repeat it mentally or write it above the encrypted letters, then apply the reverse shift associated with each key letter. Because the amount changes from position to position, careful alignment matters more than in a simple Caesar puzzle. Spaces are preserved, allowing the restored words to appear naturally as you work through the message.

Puzzle 1

Atbash Cipher

Decode the message using the displayed reversed alphabet.

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

Encrypted Message

GROO GRNV ZG OVMTGS GSV NZMMRHS GBIL DVZMH ZMW KIFIRVMG ERXV LFGHGIRKH SRH GZIWB GVVMH

Workspace

Puzzle 6

Polybius Cipher

Decode each coordinate pair using the displayed Polybius square.

	1	2	3	4	5
1	A	B	C	D	E
2	F	G	H	I/J	K
3	L	M	N	O	P
4	Q	R	S	T	U
5	V	W	X	Y	Z

Encrypted Message

23 11 43 / 33 11 44 45 42 15 / 13 34 51 15 33 11 33 44 15 14 / 52 24 44 23 / 32 15 / 44 23 11 44 / 24 / 43 23 34 45 31 14 / 33 15 51 15 42 / 11 35 35 15 11 42 / 44 34 / 14 24 43 11 14 51 11 33 44 11 22 15 / 33 15 51 15 42 / 32 11 25 15 / 11 / 42 24 14 24 13 45 31 34 45 43 / 21 24 22 45 42 15

Read each coordinate pair as row, then column. I/J share one square.

Workspace

Puzzle 101

Atbash Cipher

Decode the message using the displayed reversed alphabet.

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

Encrypted Message

RU R LMOB PMVD HSV GSLFTSG GL SVIHVOU DSRXS DZH MVXP ZMW DSRXS DZH DZRHG

Workspace

Solutions

Puzzle 1 - Atbash Cipher Reversed alphabet

Till time at length the mannish tyro weans, And prurient vice outstrips his tardy teens!

Lord Byron - The Works of Lord Byron, Vol. 1: Poetry

Puzzle 2 - Bacon Cipher 26-letter A/B code

No man cometh or goeth there, No man doeth, seeketh, saith, In the stagnant air.

Christina Rossetti - Goblin Market, The Prince's Progress, and Other Poems

Puzzle 3 - Caesar Cipher Shift: 23

The coming morrow from thy youthful mind Will sweep my name, nor leave a trace behind.

Lord Byron - The Works of Lord Byron, Vol. 1: Poetry

Puzzle 4 - Columnar Transposition Key: WORLD | order: 5-4-2-3-1

It wasted from my sight, Enlarged beyond my utmost scope, I learned its sweetness right.

Emily Dickinson - Poems by Emily Dickinson, Three Series, Complete

Puzzle 5 - Monoalphabetic Substitution Complete substitution alphabet

All memorable events, I should say, transpire in morning time and in a morning atmosphere.

Henry David Thoreau - Walden

Puzzle 6 - Polybius Cipher 5x5 square | row-column | I/J shared

Has nature covenanted with me that I should never appear to disadvantage, never make a ridiculous figure?

Ralph Waldo Emerson - Essays: First Series

Puzzle 7 - Rail Fence Cipher Rails: 4

Though his strength is such; But an innocent loving lamb May have done as much.

Christina Rossetti - Goblin Market, The Prince's Progress, and Other Poems

Puzzle 8 - Vigenere Cipher Key: NOTE

My uncertain path with green, that I may speed Easily onward, thorough flowers and weed.

John Keats - Endymion: A Poetic Romance

Puzzle 9 - Atbash Cipher Reversed alphabet

Silver briefly agreed, and this emissary retired again, leaving us together in the dark.

Robert Louis Stevenson - Treasure Island

Puzzle 10 - Bacon Cipher 26-letter A/B code

Lay thick upon the bed on which I lay, Where through the lattice ivy-shadows crept.

Christina Rossetti - Goblin Market, The Prince's Progress, and Other Poems

The MentCraft Project starts from a simple idea: a mind that's exercised regularly stays sharper, more curious, and more capable. Each collection uses a different style of puzzle to encourage patient attention, pattern recognition, and the satisfaction of working a problem through to a clear answer.

Cryptography Puzzles brings together eight classic cipher families: Atbash, Bacon, Caesar, Polybius, Rail Fence, Columnar Transposition, Monoalphabetic Substitution, and Vigenere. Clear instructions, quick-reference pages, and generous workspace make it easy to concentrate on the mechanics of decoding.

This Easy Volume 3 contains 100 main puzzles plus 10 bonus puzzles. Essential cipher parameters are disclosed on the puzzle pages, and complete solutions restore each literary quotation in natural reading form together with its author and source work.

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