

# The Roberston Bobard Code

## Solutions Group 4

|          |         |   |   |   |   |   |   |   |   |
|----------|---------|---|---|---|---|---|---|---|---|
| Group    |         | 4 |   |   |   |   |   |   |   |
| Key comb | Letter  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Key comb | Caesar  | A | B | A | P | A | A | N | L |
| Key comb | Mono    | X | O | R | S | C | H | I | A |
| Key comb | Vigene  | Y | B | E | T | E | C | C | G |
| Key comb | Polybiu | R | D | T | S | S | E | S | E |
| Key comb | Freemas | O | N | H | E | H | M | I | H |
| Key comb | Magic S | B | A | E | B | I | P | N | T |

|         |       |          |          |          |       |          |          |          |   |
|---------|-------|----------|----------|----------|-------|----------|----------|----------|---|
| Group   |       | 4        |          |          |       |          |          |          |   |
| word    |       | 1        | 2        | 3        | 4     | 5        | 6        | 7        | 8 |
| Caesar  | FLOOR | ROBOT    | FUSION   | DANGER   | ALIEN | RADIO    | EFFECT   | NATION   |   |
| Mono    | CELL  | SHIP     | GRAVITY  | JUPITER  | MOON  | HERO     | PASSAGE  | LOBSTER  |   |
| Vigene  | EYE   | TEA      | DISTANCE | ILLUSION | KEY   | MAN      | ORGANISM | NOTEBOOK |   |
| Polybiu | SUN   | UNIVERSE | HONEYBEE | DOG      | CUP   | LIFEBOAT | POSTCARD | ICE      |   |
| Freemas | FUEL  | REACTOR  | TURBINE  | ZONE     | STAR  | QUARTER  | HAMSTER  | BELL     |   |
| Magic S | SPACE | GALAXY   | PLANET   | ORBIT    | LIGHT | LOUNGE   | HEAVEN   | CHAIR    |   |

|         |   |           |           |            |         |        |           |          |             |
|---------|---|-----------|-----------|------------|---------|--------|-----------|----------|-------------|
| Group   | 4 |           |           |            |         |        |           |          |             |
|         |   | plaintext | key       | phrase     |         |        |           |          |             |
| Caesar  |   | FLOOR     | ROBOT     | BAFUSION   | PDANGER | ALIEN  | AARADION  | LEFFECT  | NATION      |
| Mono    |   | CELL      | SHIP      | XORGRAVITY | JUPITER | MOON   | SCHHEROIP | PASSAGE  | ALOBSTER    |
| Vigene  |   | YB        | EETE      | ADISTANC   | ETECILL | USION  | KEYMAN    | ORGANISM | MCGNOTEBOOK |
| Polybiu |   | SUN       | RUNIVERSE | EDTHONEY   | BEESS   | DOGESE | CUPLIFE   | BOAT     | POSTCARDICE |
| Freemas |   | OFUEL     | REACTOR   | NTURBINE   | HEZONE  | HMSTAR | IQUARTER  | HHAMSTER | BELL        |
| Magic S |   | SPACE     | GALAXY    | BAEPLANET  | BORBIT  | ILIGHT | PLOUNGE   | NHEAVENT | CHAIR       |

### Caesar Cipher

|       |   |       |        |                            |       |          |         |       |          |
|-------|---|-------|--------|----------------------------|-------|----------|---------|-------|----------|
|       |   | Shift |        |                            |       |          |         |       |          |
| Group | 4 | 14    | Plain  | ABCDEFGHIJKLMNOPQRSTUVWXYZ |       |          |         |       |          |
|       |   |       | Cipher | MNOPQRSTUVWXYZABCDEFGHIJKL |       |          |         |       |          |
|       |   |       | phrase |                            |       |          |         |       |          |
|       |   |       | Plain  | FLOOR                      | ROBOT | BAFUSION | PDANGER | ALIEN | AARADION |
|       |   |       | Cipher | RXAAD                      | MDANA | FNMRGE   | UAZBPM  | ZSQDM | XUQZ     |

### Monoalph Cipher

|   |  |                |  |              |  |          |                            |        |            |
|---|--|----------------|--|--------------|--|----------|----------------------------|--------|------------|
|   |  | Keyword        |  | Keyword used |  | Alphabet |                            |        |            |
| 4 |  | XENOPHOBICALLY |  | XENOPHBICALY |  | Plain    | ABCDEFGHIJKLMNOPQRSTUVWXYZ |        |            |
|   |  |                |  |              |  | Cipher   | XENOPHBICALY               | DFGJKM | QIRSTUVWZ  |
|   |  |                |  |              |  | phrase   |                            |        |            |
|   |  |                |  |              |  | Plain    | CELL                       | SHIP   | XORGRAVITY |
|   |  |                |  |              |  | Cipher   | NPYY                       | QICJ   | VGMBMXT    |

## Vigenere Cipher

|   |         |            |  |                        |
|---|---------|------------|--|------------------------|
|   | Keyword | plaintext  | key  | phrase                 |
| 4 | VIOLIN  | Keyword    | VIOLIN   | VIOLIN                 |
|   |         | Plaintext  | YBEYEETEADISTANCETECILLUSIONKEYMANORGANISMCGNOTEBOOK |                        |
|   |         | Ciphertext | TJSJMROMOOQFOIBNMGZKWWTHNQCYSR                       | TUOYWEBIBTAZBOBZBRWWCV |

## Polybius Squ Cipher

| Gr |         | Alphabet   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|----|---------|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|    | Plain   | R  | S  | T  | U  | V  | W  | X  | Y  | Z  | A  | B  | C  | D  | E  | F  | G  | H  | I  | J  | K  | L  | M  | N  | O  | P  | Q |
| 4  | ncipher | 11   | 12 | 13 | 14 | 15 | 21 | 22 | 23 | 24 | 25 | 31 | 32 | 33 | 34 | 35 | 41 | 42 | 43 | 44 | 45 | 51 | 52 | 53 | 54 | 55 |   |
|    | phrase  | S U N R U N I V E R S E D T H O N E Y B E E S S D O G E S E C U P L I F E B O A T P O S T C A R D I C E  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|    |         | 12145211145243153411123433134253523423313434121233534134123432145445433534315325135453121332251133433234 |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |

# Freemason Ciphers

|      |        |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|------|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Gr 4 | Plain  | S | T | U | V | W | X | Y | Z | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
|      | Cipher | ┐ | ┌ | └ | ┘ | ┑ | ┒ | ┓ | └ | ┘ | ┐ | ┌ | └ | ┘ | ┑ | ┒ | ┓ | └ | ┘ | ┑ | ┒ | ┓ | └ | ┘ | ┐ | ┌ | └ |

OFUELREACTORTURBINEHEZONEHMHSTARIQUARTERHHAMSTERBELL  
V.L>.T>.G.UV>.UL>V.G>.N>.G.UU>.J>.J>.U>.V>.T.

# Magic Squa Cipher

## Full Magic Square

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 1  | 9  | 17 | 25 | 33 | 41 | 49 |
| 26 | 34 | 42 | 43 | 2  | 10 | 18 |
| 44 | 3  | 11 | 19 | 27 | 35 | 36 |
| 20 | 28 | 29 | 37 | 45 | 4  | 12 |
| 38 | 46 | 5  | 13 | 21 | 22 | 30 |
| 14 | 15 | 23 | 31 | 39 | 47 | 6  |
| 32 | 40 | 48 | 7  | 8  | 16 | 24 |

### Empty Magic Square

|    |    |    |    |    |    |    |
|----|----|----|----|----|----|----|
| 1  | 9  | 17 | 25 | 33 |    | 49 |
| 26 | 34 | 42 | 43 | 2  | 10 |    |
|    | 3  |    | 19 |    | 35 | 36 |
| 20 |    | 29 | 37 | 45 | 4  | 12 |
| 38 | 46 |    | 13 | 21 | 22 | 30 |
| 14 | 15 | 23 |    | 39 | 47 | 6  |
| 32 | 40 | 48 | 7  |    | 16 | 24 |

phrase Square  
SPACEGALAXYBAEPLANETBORBITILIGHTPLOUNGENHEAVENTCHAIR

|   |   |   |   |   |   |   |     |
|---|---|---|---|---|---|---|-----|
| S | A | A | I | P | H | H |     |
| T | L | E | A | P | X | N |     |
| V | A | Y | E | I | O | U |     |
| T | L | I | N | E | C | B |     |
| G | N | E | A | B | O | G |     |
| E | P | R | H | E | T | G |     |
| T | N | C | A | L | L | B | AIR |