MATES MESE

## CODEBREAKER RESOURCE

## TEACHER INFORMATION SHEET

Print the activity cards out and cut them up.

- The activity cards work for all year group challenges so can be shared between classes.
- Spread the cards around the hall, playground or field.
- Give each child or team a challenge sheet.

Children answer a question...

...run to locate their answer on an activity card...

| 40.5 | 38 |  |
| :---: | :---: | :---: |
| 4 | 4 | 350 |
| 16 | 8,479 |  |

...and write the corresponding letter in their table.


If the answers are correct, the corresponding letters will unlock a code.

## Additional activity

The activity cards can be used again and again to provide new challenges for your pupils.
Ask children to design their own codebreaker task by using the answers provided to create their own questions.

| 9,217 | 86 |
| :---: | :---: |
| 1 | 8 |
| 48 | 541 |


| $D$ | 3 | 112 |
| :---: | :---: | :---: |
|  | 18 | 1,539 |
| 600 | 21 |  |


| 13 | 20 |
| :---: | :---: |
| 4,550 | 400 |
| 103 | 144 |


$\int$| 22 | 132 |
| :---: | :---: |
| 550 | 81 |
| 15.5 | 12,100 |


| 28 | 13,200 |
| :---: | :---: |
| 19 | 54 |
| 61 | 14,997 |


| 26 | 8,500 |
| :---: | :---: | :---: |
| 15 | 116 |
| 240 | 5,782 |


| 31 | 650 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 49 | 120 |
| 2,789 | 20,719 |  |$\quad$| 4,000 |
| :---: |$\quad$| 1,995 |
| :---: |
| 836 |



| 40.5 | 38 |  |  | 18,668 |
| :---: | :---: | :---: | :---: | :---: |
| 150 |  |  |  |  |
| 4 | 350 |  | 14 | 30 |
| 16 | 8,479 |  | 420 | 41 |


| 14,500 | 556 |
| :---: | :---: |
| 17 | 24 |
| 35 | 200 |


| 53 | 250 |  |
| :---: | :---: | :---: |
| 7,320 | 290 |  |
|  | 32 | 99 |


| 39 | 3,280 |
| :---: | :---: |
| 180 | 620 |
| 28.5 | 84 |


| 25 | 1,342 |
| :---: | :---: | :---: |
| 6 | 102 |
| 27 | 450 |



| 20,000 | 85 |  | 60 | 107 |
| :---: | :---: | :---: | :---: | :---: |
| 66 | 110 |  | 299 | 52 |
| 77 | 79 |  |  |  |

# Year 1 Codebreaker Challenge 

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1 <br> Activity 2

| Question |  |  |  |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| What is the missing number? |  |  |  |  |  |  |  |  |
| 1 | 2 | 3 |  | 5 | 6 | 7 |  |  |
| $4-3=$ |  |  |  |  |  |  |  |  |
| What is the missing number? |  |  |  |  |  |  |  |  |
| Which number is the greatest?$4185$ |  |  |  |  |  |  |  |  |
| $2+7=$ |  |  |  |  |  |  |  |  |
| How many stars are there? |  |  |  |  |  |  |  |  |
|  | Wha |  | umb |  | own |  |  |  |
| What is the missing number? |  |  |  |  |  | 6 |  |  |


| Question | Answer | Letter |
| :---: | :---: | :---: |
| What is the missing number? |  |  |
| $18-1=$ |  |  |
| Which number is the greatest? $\begin{array}{lllll} 15 & 9 & 6 & 17 & 4 \end{array}$ |  |  |
| What number is shown? |  |  |
| $11+7=$ |  |  |
| $\ldots+7=15$ |  |  |
| How many squares are there? |  |  |
| Which number is the smallest? $8 \quad 2126$ |  |  |

## Year 1

## Codebreaker Challenge <br> ANSWERS

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1

| Question |  |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| What is the missing number? |  |  |  |  | 4 | M |
| 1 | 2 | 3 | 5 | 6 |  |  |
| $4-3=$ |  |  |  |  | 1 | A |
| What is the missing number?$\square$ |  |  |  |  | 6 | R |
| Which number is the greatest?$4185$ |  |  |  |  | 8 | A |
| $2+7=$ |  |  |  |  | 9 | T |
| How many stars are there? |  |  |  |  | 5 | H |
| What number is shown? |  |  |  |  | 17 | 0 |
| What is the missing number? |  |  |  |  | 14 | N |
|  | 12 | 13 | 15 |  |  |  |



# Year 2 <br> Codebreaker Challenge 

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1 <br> Activity 2

| Question | Answer | Letter |
| :---: | :---: | :---: |
| Which number is the smallest? $\begin{array}{llll} 48 & 82 & 41 & 29 \end{array}$ |  |  |
| $28+7=$ |  |  |
| $\ldots$ ___ tens +7 ones $=27$ |  |  |
| $47=35+$ |  |  |
| What is the missing part? |  |  |
| What number is 7 less than 73 ? |  |  |
| What is the missing number? <br> 9, 12, 15, $\qquad$ , 21 |  |  |
| 3 tens + ___ ones $=38$ |  |  |
| Write "ninety-six" in numerals. |  |  |
| What is the missing number? $20,18,16,14, \ldots, 10$ |  |  |


| Question | Answer | Letter |
| :---: | :---: | :---: |
| 4 tens +9 ones $=$ |  |  |
| Write "seventy-nine" in numerals. |  |  |
| What is the missing number? <br> 20, 18, $\qquad$ 14, 12, 10 |  |  |
| What is the missing number? $15,18,21,24,27,$ |  |  |
| What number is 6 less than 54 ? |  |  |
| $\underline{=} 60+20$ |  |  |
| What is the missing part? |  |  |
| 31 ? |  |  |
| 40 |  |  |
| $39-5=$ |  |  |
| $38=25+$ |  |  |
| Which number is the smallest? $\begin{array}{llll} 35 & 23 & 32 & 51 \end{array}$ |  |  |

# Year 2 Codebreaker Challenge ANSWERS 

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1

| Question | Answer | Letter |
| :---: | :---: | :---: |
| Which number is the smallest? $\begin{array}{llll} 48 & 82 & 41 & 29 \end{array}$ | 29 | V |
| $28+7=$ | 35 | 0 |
| $\ldots$ _ tens +7 ones $=27$ | 2 | L |
| $47=35+$ | 12 | L |
| What is the missing part? | 19 | E |
| What number is 7 less than 73 ? | 66 | Y |
| What is the missing number? $9,12,15, \ldots, 21$ | 18 | B |
| 3 tens + ___ ones = 38 | 8 | A |
| Write "ninety-six" in numerals. | 96 | L |
| What is the missing number? <br> $20,18,16,14$, $\qquad$ , 10 | 12 | L |


| Question | Answer | Letter |
| :---: | :---: | :---: |
| 4 tens +9 ones $=$ | 49 | G |
| Write "seventy-nine" in numerals. | 79 | Y |
| What is the missing number? $20,18,$ $\qquad$ , 14, 12, 10 | 16 | M |
| What is the missing number? $15,18,21,24,27,$ $\qquad$ | 30 | N |
| What number is 6 less than 54? | 48 | A |
| $\underline{L}=60+20$ | 80 | S |
| What is the missing part? |  |  |
| 31 | 9 | T |
| 40 |  |  |
| $39-5=$ | 34 | I |
| $38=25+$ | 13 | C |
| Which number is the smallest? $\begin{array}{llll} 35 & 23 & 32 & 51 \end{array}$ | 23 | S |

# Year 3 Codebreaker Challenge 

## Answer a question then try to find your answer on a card.

Write down the letter next to the answer to crack the code.

## Activity 1

| Question |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| What is the value of the number 8 in the number 387? |  |  |  |  |  |
| $\div 8=5$ |  |  |  |  |  |
| $8 \times 6=$ |  |  |  |  |  |
| $36 \div 4=$ |  |  |  |  |  |
| What number is 23 less than 77 ? |  |  |  |  |  |
| $28-\ldots=7$ |  |  |  |  |  |
| What is the missing number?$4,8,12,16,20, \ldots, 28,32$ |  |  |  |  |  |
| What is the greatest number you can make using these cards? |  |  |  |  |  |
| What is the smallest number?$\begin{array}{llll} 201 & 102 & 221 & 112 \end{array}$ |  |  |  |  |  |
| What is the missing number? |  |  |  |  |  |
| 650 | 600 | 500 | 450 |  |  |


| Question |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| What is the smallest number you can make using these cards? |  |  |  |  |  |
| What is the missing number?$50,45,40, \ldots, 30,25$ |  |  |  |  |  |
| What number is 16 less than 88 ? |  |  |  |  |  |
|  |  | $=9$ |  |  |  |
| What is the greatest number?$\begin{array}{llll} 400 & 402 & 404 & 420 \end{array}$ |  |  |  |  |  |
| $93-7=$ |  |  |  |  |  |
| What is the missing number? |  |  |  |  |  |
| 250 | 300 | 400 | 450 |  |  |
| What is the missing number?$4,8,12,16,20,24, \ldots, 32$ |  |  |  |  |  |
| $5 \times 6=$ |  |  |  |  |  |
| What is the value of the number 5 in the number 751 ? |  |  |  |  |  |

# Year 3 Codebreaker Challenge 

## ANSWERS

## Answer a question then try to find your answer on a card.

Write down the letter next to the answer to crack the code.

## Activity 1

| Question |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: |
| What is the value of the number 8 in the number 387 ? |  |  | 80 | S |
| $\ldots-8=5$ |  |  | 40 | K |
| $8 \times 6=$ |  |  | 48 | A |
| $36 \div 4=$ |  |  | 9 | T |
| What number is 23 less than 77 ? |  |  | 54 | E |
| $28-\ldots=7$ |  |  | 21 | B |
| What is the missing number?$4,8,12,16,20$$\qquad$ , 28, 32 |  |  | 24 | 0 |
| What is the greatest number you can make using these cards?$\text { (4) } 1 \text { [ }$ |  |  | 541 | A |
| What is the smallest number?$\begin{array}{llll} 201 & 102 & 221 & 112 \end{array}$ |  |  | 102 | R |
| What is the missing number? |  |  |  |  |
| 650 | 500 | 450 | 550 | D |


| Question |  | Answer |
| ---: | :---: | :---: | Letter

## Year 4 Codebreaker Challenge

## Answer a question then try to find your answer on a card.

Write down the letter next to the answer to crack the code.

## Activity 1



| Question | Answer | Letter |
| :---: | :---: | :---: |
| What number is 100 <br> less than 111? |  |  |
| What is the value of the <br> underlined digit? 4,869 |  |  |
| Write the Roman Numeral <br> XVII as a number. |  |  |
| Round 740 to the nearest 100. |  |  |
| Round 194 to the nearest 10. |  |  |

## Year 4

## Codebreaker Chollenge <br> ANSWERS

## Answer a question then try to find your answer on a card.

Write down the letter next to the answer to crack the code.

## Activity 1



| Question | Answer | Letter |
| :---: | :---: | :---: |
| What number is 100 less than 111? | 11 | S |
| What is the value of the underlined digit? 4,869 | 4,000 | H |
| Write the Roman Numeral XVII as a number. | 17 | 0 |
| Round 740 to the nearest 100. | 700 | W |
| Round 194 to the nearest 10. | 190 | J |
| What is double 36? | 72 | U |
| $\begin{array}{r}1326 \\ +7153 \\ \hline\end{array}$ | 8,497 | M |
| $320=\ldots \times 10$ | 32 | P |
| $5,000 \div 10=$ | 500 | I |
| $\ldots \times 3=90$ | 30 | N |
| $\underline{-7}=7$ | 49 | G |

# Year 5 <br> Codebreaker Challenge 

## Answer a question then try to find your answer on a card.

Write down the letter next to the answer to crack the code.

## Activity 1



## Activity 2



# Year 5 Codebreaker Challenge <br> ANSWERS 

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1

| Question | Answer | Letter |
| :---: | :---: | :---: |
| Round 7,319 to the nearest 10 . | 7,320 | P |
| $86,000 \div 1,000$ | 86 | A |
| Which is the greatest number? $\begin{array}{llll} 1,342 & 1,319 & 1,309 & 1,099 \end{array}$ | 1,342 | R |
| $\begin{array}{r}6590 \\ +2627 \\ \hline\end{array}$ | 9,217 | A |
| 4,999 +4,999 = | 9,998 | S |
| What is the difference between -6 and 2? | 8 | A |
| $0.34 \times 100$ | 34 | I |
| 1 6 7 5 <br>  8 5 4 | 821 | L |
| What is the Roman Numeral CVI as a number? | 106 | I |
| Which number is a prime number? <br> $22 \quad 41 \quad 36 \quad 55$ | 41 | N |
| $7^{2}=$ | 49 | G |



# Year 6 Codebreaker Challenge 

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1



## Activity 2



# Codebreaker Challenge <br> <br> ANSWERS 

 <br> <br> ANSWERS}

Answer a question then try to find your answer on a card.
Write down the letter next to the answer to crack the code.

## Activity 1

| Question |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Round 14,549 to the nearest hundred. |  |  |  | 14,500 | 0 |
| $3^{3}=$ |  |  |  | 27 | R |
| $3,500 \div 7=$ |  |  |  | 500 | I |
| Which is a prime number? <br> $\begin{array}{lllll}61 & 62 \quad 63 \quad 64 \quad 65\end{array}$ |  |  |  | 61 | E |
| $5+5 \times 5$ |  |  |  | 30 | N |
|  | $\times 1$ |  | $8 \quad 2$ <br>  | 6,910 | T |
| $3 \times 4,999=$ |  |  |  | 14,997 | E |
| $9.5 \times 2=$ |  |  |  | 19 | E |
| What is the missing number? |  |  |  | 450 | R |
| 750 | 675 | 600 | 525 |  |  |
| $30-17.5=$ |  |  |  | 12.5 | I |
| What is the smallest number? <br> $18,686 \quad 18,668 \quad 18,680$ |  |  |  | 18,668 | N |
| $\begin{array}{r} 29675 \\ -\quad 8956 \\ \hline \\ \hline \end{array}$ |  |  |  | 20,719 | G |


| Question |  |  |  | Answer | Letter |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $3+2 \times 50$ |  |  |  | 103 | C |
| $5 \times 399=$ |  |  |  | 1,995 | H |
| Half of 96 |  |  |  | 48 | A |
| $50-9.5=$ |  |  |  | 40.5 | M |
| What is the missing number? |  |  |  | 250 | P |
| 130 | 170 | 210 | 290 |  |  |
| What is the greatest number?$\begin{array}{lll} 1,089 & 1,808 & 1,800 \end{array}$ |  |  |  | 1,808 | I |
| $1,600 \div \square=8$ |  |  |  | 200 | 0 |
|  |  |  |  | 18,668 | N |
| $\begin{array}{r}16286 \\ -\quad 6288 \\ \hline\end{array}$ |  |  |  | 9,998 | S |
| $4^{3}=$ |  |  |  | 64 | H |
| Round 21,669 to the nearest hundred. |  |  |  | 21,700 | I |
| Which is a prime number? $\begin{array}{lllll}51 & 52 & 53 & 54 & 55\end{array}$ |  |  |  | 53 | P |

