05 - Cracking the Code Student Activity Card 01 Code breaking tips

Quick!

A secret message has just arrived.

We've figured out some of the letters. Can you work out the rest?

CLUE! We think that the last word might be help.

y fx ewohqcq y hccq dcua

The letter **e** is a common letter in English.

Single letter words are usually **I** or **a**.

Some common two letter words are: of. am and to.

Some common pairs of letters are ee, oo and ss.

A two letter word Single letter words A pair of letters h d X 0 C q С u q

German Dictionary

am – bin

bad - schlecht

difficult - schwierig

good - gut

help - hilfe

I - ich

need - brauche

no - nein

please - bitte

today - heute

tomorrow - morgen

the – das

water - wasser

week - woche

wounded - verwundet

yes – ja

yesterday – gestern

you - sie

Don't forget. The messages Colossus helped to decode were in German.

Use the mini dictionary to translate the secret message above into German.

Write your translation in the box:

Challenge sheet

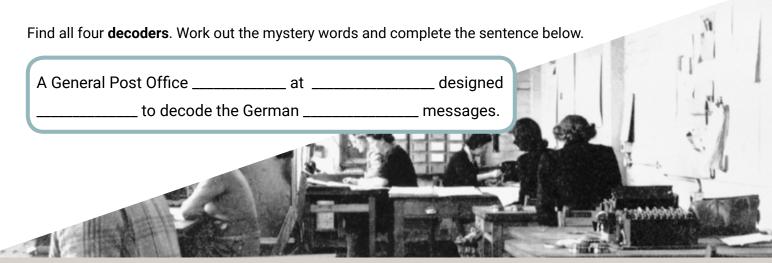
Your teacher will give your team an encrypted clue!

Your challenge is to use the key to decipher the clue and find the hidden decoder as fast as possible.

| Q | а | b | С | d | е | f | g | h | i | j | k | I | m | I_{\dashv} |
|----|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------|
| 70 | С | е | n | 0 | r | W | × | У | u | Р | j | k | 9 |] |
| | n | 0 | р | q | r | S | t | u | V | W | Х | у | Z | |
| | b | f | m | S | d | q | Z | ٧ | + | l | i | h | а |] ` |

Follow the dotted line and cut out the **decoder**. Place it on the letter grid below. This will reveal the letters of a mystery word.

| Α | K | В | R | Р | J | Т | Q | В | Α | Υ | S |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Е | N | S | Α | L | W | F | Α | Υ | Q | Н | |
| D | 0 | 1 | K | М | Ν | Α | U | Т | Р | Α | R |
| Α | 0 | U | G | Α | K | | Т | L | Υ | S | U |
| L | Α | U | Α | F | Р | L | G | Α | K | S | N |
| С | 0 | Α | D | W | Н | K | Α | U | Α | L | L |
| L | L | 1 | R | 1 | F | Z | 0 | F | В | Ε | Ν |
| F | D | N | Α | Q | 0 | С | М | S | Н | Α | Q |
| G | J | L | В | Α | R | Н | В | Α | L | 0 | S |
| | Υ | F | Α | 0 | D | Α | Т | W | Ε | Ε | R |
| S | Α | ı | Υ | F | J | Α | Р | U | Q | D | Α |
| 0 | R | Q | Р | L | Н | G | 1 | F | Υ | Н | Z |



05 - Cracking the Code

Teachers' Clue Sheet (Teacher eyes only!)

Students take on a 'Top Secret' operation in teams. Their challenge is to decipher cryptic clues and find four decoders hidden around the school to reveal a secret message.

Set up the Decoder Challenge

- Divide the students into teams (four six teams for an average class of 30).
- Copy this sheet for each team and cut out the cryptic clues.
- Make a copy of the decoder sheets for each team.
- Cut the decoder sheets in half and put copies of the same decoder into each envelope.
- Hide the decoders in position. Do not cut along the dotted line – allow students to do this.
- E.g. 'Clue 1' will lead to 'Envelope 1' hidden near the piano.
- · Put a Challenge Sheet with letter grid on each team table.
- · Give each team the four clues.

Run the Decoder Challenge

- · Start each team in a different order.
- Explain that the classroom is their Research Station and they must bring each decoder back and use the letter grid on the 'Challenge sheet' to reveal the secret word.
- Encourage students to work together
 and fast to beat the clock!

I. Near the piano

bred zyr mucbf

2. By the goal posts

2

eh zyr xfck mfqzq

3. By the bike rack

3

eh zyr eujr dcnj

4. Outside bench

4

fvzquor erbny

TOP SECRET DECODER

TOP SECRET DECODER

| $\mathring{\mathscr{L}}$ | |
|---|------------|
| | l |
| | l |
| r ' | ' |
| · · | |
| TOP SECRET DECODE | |
| Great work! Take this decoder back to the Research Station. | |
| Cut along the dotted lines. Place the decoder over the letter grid on the 'Challenge sheet' to reveal the mixed up letters. | |
| Rearrange the letters to reveal the mystery word. | - |

TOP SECRET DECODER Great work! Take this decoder back to the Research Station. Cut along the dotted lines. Place the decoder over the letter grid on the 'Challenge sheet' to reveal the mixed up letters. Rearrange the letters to reveal the mystery word.

TOP SECRET DECODER

TOP SECRET DECODER

| | 3 | |
|-----------|---|------|
| TOP S | ECRET DECODE | ER ¦ |
| Cut a dec | rork! Take this decoder back to the Research Station. along the dotted lines. Place the coder over the letter grid on the enge sheet' to reveal the mixed up letters. arrange the letters to reveal the mystery word. | |

TOP SECRET DECODER Great work! Take this decoder back to the Research Station. Cut along the dotted lines. Place the decoder over the letter grid on the 'Challenge sheet' to reveal the mixed up letters. Rearrange the letters to reveal the mystery word.