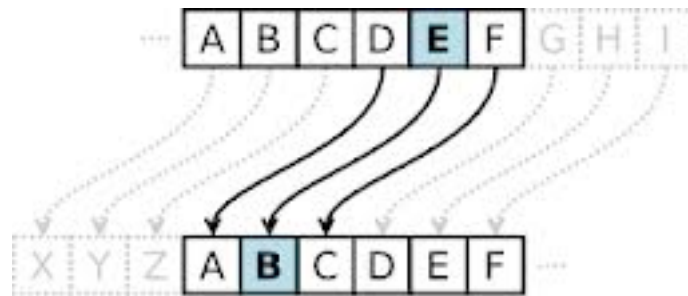


## Secret Messages and Secret Messengers

### Introduction

There are numerous lessons available to create Secret Messages. I would suggest that all ability groups would start with the simple Caesar Cipher.



TES [www.tes.co.uk](http://www.tes.co.uk)

Example lessons <http://www.tes.co.uk/ResourceDetail.aspx?storyCode=6340594>

**Bletchley Park** is the home of Secret Messages.

Arrange a visit to their museum and education centre.

<http://www.bletchleypark.org.uk/edu/pgm.rhtm>

**Enigma Maths Project** <http://enigma.maths.org/content/>

Dr James Grime introductory lecture

<http://youtu.be/9cNBoRh64yI>

The Enigma Machine and how it works

<http://www.youtube.com/watch?v=PMMSseOBbG0s&feature=youtu.be>

A public lecture on the emergence of machine assisted cryptanalysis, which includes World War II and the breaking of the Enigma machine at Bletchley Park. Given by the University of York's Department of Computer Science Deputy Head of Department for Research, Professor John Clark.

<http://www.youtube.com/watch?v=EpVji-LQuq4>

## Homing Pigeons and Secret Messages

Secret Messages have been transferred between two people using homing or carrier pigeons. Attaching the small piece of paper containing the coded message to the bird is easily done. The bird would then fly home and deliver the message.

### ANZAC Pigeon Heroes of War Tribute 2012

<http://www.youtube.com/watch?v=yxvEmmKrKig&feature=youtu.be>

The following clip shows a secret message being attached to the bird's leg.

<http://youtu.be/k0yQOPez8IU>

Homing pigeons were used in WW1 and WW2 and excellent documentary is available called 'War of the birds' <http://www.youtube.com/watch?v=sZfjbf5SXM> There is a worksheet with a series of questions available for this programme. (Attachment).

### Secret Messages and Homing Pigeons in the news. <http://www.youtube.com/watch?v=POZIAMUcRns>

Published on 2 Nov 2012

David Martin was renovating his house in southern England when he found a carrier pigeon skeleton in his fireplace with a barrel attached to the leg, believed to contain a secret message dating back to World War Two. The message is so secret that it is written in a code long since forgotten by the security services. Now the Government Communications Headquarter (GCHQ) in Cheltenham, Glos, is hoping to decipher the note in a bid to unravel the mystery. The Royal Pigeon Racing Association believe the bird probably either got lost, disorientated in bad weather, or was simply exhausted after its trip across the Channel. Read more about this story: <http://www.telegraph.co.uk/news/uknew...>

### Decoding a secret message

A copy of a secret message has been given to a pupil and she is trying to work out what the letters mean. This is without any help or prior knowledge. She has filmed her response.

<http://www.youtube.com/watch?v=frocH03ogeA&feature=youtu.be>

This activity could be set up to stimulate enquiry before visiting Bletchley Park and further research.

## Using homing pigeons at your school, Bletchley Park or Kidderminster Festival.

Stage 1. Pupils or members of the public write their secret message on a piece of paper.

Level 1 This could be a simple message without being in code.

Level 2 This could be a message transferred into simple Caesar Code.

Level 3 This could be a message generated by an Enigma Machine Emulator

<http://enigma.louisedade.co.uk>

*A message book needs producing which is the same format, which was used during the war.*

Stage 2. Pupils or members of the public place their message into a canister attached to the pigeon's leg.

Stage 3. They are taught how to hold the pigeon and then release their bird from an experienced pigeon fancier.

Stage 4. The homing pigeon sets off for home carrying the message.

Stage 5. The pupils or members of the public fill in a Google Form (Laptop) with the birds details, GB12Z00001 (Taken from the birds leg) Their email address and friends email address (optional) and from a drop down menu the time and date of the release of the homing pigeon.

<https://sites.google.com/a/northlincs.net/secret-messages/secret-messages-lesson/home> This

can be set up creating a Google Form and attaching it to a Google Site. This is all free of charge and very easy to set up.

Stage 6. When the bird arrives home the message is taken from the canister.

Level 1 The piece of paper is photographed by a smartphone or iPad/tablet and emailed to the person. You will know the email address and ring number from the Google Response Form.

Level 2 The Secret Message using Caesar is decoded by pupils and then emailed back to the person sending it. This will teach and reinforce the simple code. Ideal for the Kidderminster/Kingsmead project in August.

Level 3 The Enigma Code Emulator used to decipher the message and the result emailed to the person. <http://enigma.louisedade.co.uk>

The Google Response Form

<https://docs.google.com/spreadsheet/ccc?key=0AhBw3k96vBx0dDh1eDY5Y3EwNGlxdXE3WWo1Ykd1OFE&usp=sharing>

### **Extra Information**

A standard message can be added to each returned email. A newsletter produced by pupils can be sent out with updates of the birds. Perhaps they have done well in a race or flown from x or had two babies or are moulting.

### **Example:**

'Speckled Jim' was released at Latitude Longitude Kidderminster at 12.00.00 and arrived at Kingsmead School Latitude Longitude at 13.00.00. The bird travelled a distance of x miles x yards or x kilometres x Metres with an average speed of 1420.00 yd/m or 45mph or 1000m/sec 75km/hr To find out more information about the bird Speckled Jim please click on his website. You can find out how he gets on in the future. <https://sites.google.com/a/northlincs.net/secret-messages/>

Homing pigeons are great fun pets and very easy to look after. To find out how you can obtain two free homing pigeons and how you look after them, please click on the following link.

[www.flyingbacktonature.com](http://www.flyingbacktonature.com)

Attach Excel spreadsheet, which calculates distances between two locations.

Attach Excel spreadsheet for calculating velocities.

Added to later tasks and available in the folder.

Peter Humphries

27<sup>th</sup> December 2013