

1077-VL-1724      **Bill Linderman\*** ([wclinder@king.edu](mailto:wclinder@king.edu)), Department of Mathematics, King College, Bristol, TN 37620. *Deciphering a Message Using the Vigenère Square*. Preliminary report.

Vigenère described a method for enciphering a message using a keyword. The method is similar to a Caesar shift but involves a polyalphabetic substitution. We will show how analyzing letter frequencies can be used to decipher the message when the length of the keyword is known. Demonstrations will be in *Mathematica*. (Received September 20, 2011)