Code Wheel: for encrypting and deciphering messages

This activity can be easily differentiated to accommodate different ages and abilities. The idea is to use two circles to create a Code Wheel to encrypt and decipher messages.

What you need

Easier version:
Circle Templates printed on card
Scissors
Pencils/pens
Split pins

Harder version:
Card
Pair of compasses
Protractor
Pencils/pens
Scissors
Split pins

How to do it:

1) Cut out one big circle and one little circle
2) If using blank templates then the alphabet needs to be written on both the inner circle and outer circle (preferably in capitals on the outer wheel and lower-case on the inner wheel)
3) Use a split pin to join the two circles together
4) Spin the inner wheel to a position where the letters are ‘incorrectly’ aligned
5) Choose one pair of letters to remember your code: e.g. A=w (make sure you write this down somewhere)
6) Write a short sentence and encode it. Make sure you know which of the circles is your for the letters of your original sentence and which is for your code.
7) Share your coded sentences and wheels to see if other people can decode your message.

Ideas for adapting the exercise:

- Studying Ancient Egypt? Create a Hieroglyphs wheel.
- Use the code wheel to create a shapes and symbols code.
Code Wheel: what it will look like!

Below is an example of a complete code wheel. If I use the outer wheel as my original letters the sentence.

I like code wheels!  would become  E hega ykza sdiihw!
Template: Outer Wheel with alphabet
Template: Outer Wheel blank
Template: Combined Wheels (to show placement)