Cyber Security  
Enigma Machine Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Working alone or with a partner, we will be examining the German Enigma machine used in World War II to encrypt the German messages. The Enigma was a complicated machine that needed to be set correctly in order to correctly decrypt a message.

To correctly encrypt/decrypt a message, the rotor positions, reflector, and starting positions must be known and set.

1. Using the Rotors I, III, V in starting position Q, V, Z and using Reflector B, encrypt the following message: **ATTACK AT DAWN**
2. Again using the Rotors I, III, V with starting position Q, V, Z and Reflector B, decrypt the following message: **SX OTP GYJHKNQZ**
3. Using Rotors II, IV, I with starting position A, A, A and Reflector C, encrypt the following message: **ENIGMA**
4. Encrypt a message and give it to another group to decrypt. You’ll need to provide the following information to the other group.

Plaintext Message (don’t share): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Encrypted Message: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rotors: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Starting Position: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Reflector: \_\_\_\_\_\_\_\_

1. Get the following information from another group and decrypt

Encrypted Message: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Rotors: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Starting Position: \_\_\_\_\_\_ \_\_\_\_\_\_\_ \_\_\_\_\_\_\_

Reflector: \_\_\_\_\_\_\_\_