# A History of Secrecy: The Age of Analog Ciphers & Encryptions

#### **PROGRAM DESCRIPTION**

Today's digital security has its roots in physical encryption that dates back at least 2000 years. This program discusses eleven of the classic ciphers starting with the Spartan Scytale of 200 BCE, moving through to the Alberti and Vigenère ciphers of the 14th and 15th centuries, and ending with the German Enigma Machine of World War II. Attendees use vintage ciphers and signal devices to encipher, send, receive, and decipher messages. Visit STEMpunkED.com/Programs for more details

#### LOGISTICS, FEE & DELIVERY REQUIREMENTS

**Duration**: 2.5 hour interactive program | **Age Range**: 8/9-Adult | **Participants**: 10-30 | **Cost**: See Website | **Requirements**: Video Projector with HDMI port and speakers ; 1 large table for presenter's items ; 10 tables with 4 chairs each ; 1.0 hour setup and breakdown times ; additional travel charges may apply.

### **CORE TOPICS & GOALS**

Analyze key historical periods and patterns in the rise of cryptography as a tool of covert communication between armies, clergy, states, and corporations

▲ Establish a chronology for the creation of increasingly complex ciphers as a direct response to constant development of tools and strategies to defeat them

Assess the impact of technological developments in communication on the use of ciphers





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## **CORE TOPICS & GOALS**

▲ Explore the role of ciphers in prolonging and curtailing wars, building and destroying nations, and saving and ruining lives

▲ Follow written procedures to complete tasks related to encryption using a variety of vintage communication devices

Collaborate effectively as group members who actively listen, respectfully pose thoughtful questions, acknowledge the ideas of others, and contribute ideas

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