

## **Compass Homeschool Enrichment LLC**

## **Cracking Codes: Cryptology for Kids**

**Dates:** March 26 - May 21, 2014 (7 weeks)

**Instructor:** Sarah Hogue

**Objective:** Students will learn the language of spies and secret agents in this children's cryptology class. Cryptology is the science of secret writing which uses math and reasoning such as number patterns, sequences, and symbols to create and decode mystery alphabets. Each week students will learn one or more ciphers and will practice using them to write coded messages to each other and to decode class examples. Code systems used in Quarter 4 the matrix ciphers and substitution ciphers. This class is not a repeat of cryptology classes from 1st, 2nd, or 3rd and may be taken without prerequisites. This is a 7-week class that will not meet on May 14.

### **Preliminary Course Outline**

#### Week Theme/Topic

- 1. Matrix Ciphers
  - Encoding and Decoding Messages
  - Create Your Own Matrix Cipher
- Cracking Matrix Ciphers
  - Using Frequency Charts
- 3. Book Ciphers
  - Concealing the Message Within the Page
- 4. Substitution Ciphers
  - Create Your Own Substitution Cipher
  - Cracking the Code Using Common Words
- 5. Vigenere Ciphers
  - Repeating Key Words
  - Encrypting and Decrypting Using the Vigenere Square
- 6. Tap Code
  - Using Number Cipher Strip
  - Tap Messages

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7. Creating Your Own Combination of Codes

• Try to Fool the Teacher!

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