Cryptography Online

TOPIC: FOUNDATIONAL PRINCIPLES OF CYBERSECURITY (CRYPTOGRAPHY)

GRADES: 3-5, 6-8, 9-12

LESSON DURATION: TEACHER DISCRETION (USUALLY 45 MINUTES)

SOFT SKILLS: COMMUNICATION, PROBLEM SOLVING, COLLABORATION; CRITICAL THINKING

Introduction:

- This lesson is designed to supplement other activities/discussions on cryptography. Braingle.com has a variety of posted activities in which student can learn the different methods of encryption.

Learning Outcome:

- Students will learn different methods of cryptography by utilizing an online resource.

Materials:

- Internet access
- https://www.braingle.com/brainteasers/codes/

Activities:

1. As part of pre-existing lessons on encryption, the teacher could utilize resources found at braingle.com to reinforce the different methods used.
2. For example, https://www.braingle.com/brainteasers/codes/caesar.php#form shows students how a Caesar cipher operates. The students can use the encipher/decipher options to learn how it works. Students could also exchange messages with each other to practice.
3. Along the side panel of the website are all of the different options available.

Enrichment/Follow-up:

- The CIA also has a Kids Zone with posted "Break the Code" Activities. These activities can be found at https://www.cia.gov/kids-page/games/break-the-code