**Lesson Topic**

 Code Breaking

**State Standard**

A1: F-IF

**Relation to USS Kidd**

Cryptography was used extensively during World War II, with a plethora of code and cipher systems fielded by the nations involved. In addition, the theoretical and practical aspects of *cryptanalysis*, or *codebreaking*, was much advanced.

**Lesson Goal**

Students learn about the importance of cryptography in World War II and create number-based codes.

**Objectives**

Students learn about the history and uses of cryptography and practice their math skills as they develop number-based codes.

**Materials needed for lesson**

* [A Cryptographic Compendium](http://www.quadibloc.com/crypto/intro.htm)
* paper and pencil

Lesson

Invite students to read print and/or online materials about the importance of cryptography in World War II and to explorePaper and Pencil Systemsin [A Cryptographic Compendium](http://www.quadibloc.com/crypto/intro.htm). Then have each student create a number-based code and write a message that will stump his or her classmates.

**Assessments**

Evaluate students on the creativity and math proficiency they demonstrate while developing their number-based codes.