CIPHER DISK

LESSON OVERVIEW

Grade Levels: 3-5

In this lesson, students will learn about codes and will use a cipher disk to reveal a secret message. Students will then create their own secret messages for each other.

STANDARDS

CCSS.ELA-LITERACY.SL.3-5.1	Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3-5 topics and texts, building on others' ideas and expressing their own clearly.
CCSS.ELA-LITERACY.RI.3-5.7	Draw on information from multiple print or digital sources, demonstrating the ability to locate an answer to a question quickly or to solve a problem efficiently.
CCSS.ELA-LITERACY.W.3-5.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

OBJECTIVES

- Students will discuss codes.
- Students will use a cipher disk to reveal a secret message.
- Students will create their own secret messages for each other.

MATERIALS

- Cipher disk handout.

PROCEDURE

STEP 1: In a number of the I Survived books, the use of secret messages, codes, and code-breaking is discussed (*The Hindenburg Disaster, 1937; The Nazi Invasion, 1944; The Bombing of Pearl Harbor, 1941*). Discuss with the students what they already know about the use of secret codes during war time.

STEP 2: Optional: Using a projector or the whiteboard, show examples of codes or articles about WWII codes and code-breaking.

STEP 3: Provide each student with the Cipher Disk handout. Explain how the disk works and demonstrate setting a particular Key. Have students assemble their disks.

STEP 4: Tell students they will now work to reveal this secret message:

       The Key=6

       Message=XKYOROKTIK OY ZNK QKE ZU YAXBOBGR

       Answer=RESILIENCE IS THE KEY TO SURVIVAL

STEP 5: Now have the students work in pairs. Have the students each make up a key and a secret message for their partner. The students exchange keys and messages and try to decode their partners message.

STEP 6: Discuss as a class how each pairing of secret messages went: were the instructions successful? Did the partners successfully arrive at the correct secret message?

RUBRIC

	Target (3)	Meets (2)	Partially Meets (1)	Does Not Meet (0)
USE OF MANIPULATIVES	Student always listens and follows directions only using manipulatives as instructed.	Student typically listens and follows directions, using manipulatives as instructed most of the time.	Student sometimes listens and follows directions, using manipulatives appropriately when reminded.	Student rarely listens and often plays with the manipulatives instead of using them as instructed.
CODE INSTRUCTIONS	Code instructions are clear, effective and include all necessary content.	Code instructions are clear and includes all necessary content.	Code instructions are complete, but may not include all necessary content.	Code instructions are incomplete and may not include all necessary content.
COLLABORATION	Works well with others and discusses ideas in a fair, respectful, encouraging way and is considerate of the feelings of others.	Works okay with others and discusses ideas in a fair, respectful way, but may not be encouraging. Considers the feelings of others.	Works with others, but does not contribute a fair share of work OR is discouraging and does not consider the feelings of everyone.	Does not work well with others and/or discusses ideas in an unfair, disrespectful way.
REQUIREMENTS	Meets all of the requirements for the project.	Meets most of the requirements for the project.	Meets some of the requirements for the project.	Does not meet the requirements for the project.
DEMONSTRATION OF KNOWLEDGE OF CONTENT IN DISCUSSIONS AND ACTIVITIES	Does a great job showing an understanding of the content covered in class.	Does an okay job with showing an understanding of the content covered in class.	Tries but has a difficult time showing an understanding of the content covered in class.	Does not show an understanding of the content covered in class.
Total			/15	