Lesson Plan K-1.CY.4

BACKGROUND INFORMATION

LESSON TITLE: Secret Codes for Superheroes in Training
STANDARD(S): K-1.CY.4 Decode a word or short message using a simple code.
HOW THE LESSON FITS INTO AN INSTRUCTIONAL SEQUENCE: This lesson is the start up the vertical to arrive at students trying to crack their self-created code. In this lesson, students will be cracking a code using the beginning sounds of different objects.
MATERIALS NEEDED: Computer
PRIOR PREPARATION NEEDED: Create a copy of the Code Breakers Slides (forced copy), or view.
SAFETY CONSIDERATIONS: Students should not be asked nor permitted to encrypt personally identifiable information in the application or extension activity.

LESSON SUMMARY

SUMMARY OF THE LESSON: Are you ready to learn how to break a secret code? Learn why we need codes and then learn how to break a code!
OBJECTIVES:
- I can describe how a code is used to create a "secret message" in the electronic world.
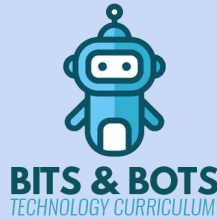- I can use a cipher to break a code.

ESSENTIAL VOCABULARY:
- Cipher - A secret or disguised way of writing; a code.
- Code - A secret way of writing.
- Decode - To figure out what a coded message means.

ACTIVATE PRIOR KNOWLEDGE

PRESENTATION OF INTERESTING PHENOMENON (IF APPLICABLE)/HAVE STUDENTS THINK AND DISCUSS PRIOR KNOWLEDGE/HAVE STUDENTS ENGAGE IN A SKILL THAT THEY HAD PREVIOUSLY LEARNED

DISCUSSION PROMPT: If you had to send a secret message, how would you do it?

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APPLICATION ACTIVITY

WHAT STUDENTS WILL BE DOING TO ENACT THE INFORMATION GAINED IN THE VIDEO INTO CREATING THEIR OWN UNDERSTANDING OF THE CONCEPT/CREATING SOMETHING WITH THE KNOWLEDGE GAINED/SOLVING A PROBLEM

In this application activity students will be tasked with breaking a code.

Today we will be using some code breaking skills and breaking 3 letter CVC words!

Lesson Instructions: Make a copy of Code Breakers Slides *(forced copy)*
- Look at each picture.
- What letter does that object start with?
- Click on the blue ? and hit the Backspace button.
- Type the letter of the starting sound of the picture.
- Continue this process until all the cvc code words have been broken.

CLOSURE

DESCRIPTION OF CLOSURE EXERCISE: The lesson will close out with a discussion exercise/wait time extended. This exercise will have students reflect upon their learning experience and continue the concept of iterative thinking.

Activity: *TELL A FRIEND*
How did you break your code today? Could you use this code to write a message to a friend? How would you do that?

With this being a wait time extended activity, the instructor should be walking around the room and interviewing/listening to students' responses. After the time on the clock has elapsed, the teacher will facilitate group discussion around the three prompts selecting the best responses encountered during the interview phase. Students not selected to speak should be permitted to volunteer their experiences if they so desire.

EXTENSION AND SPACED PRACTICE IDEAS

In order for the teacher to keep this concept recurring in their classroom and to make sure that students remember and internalize the concepts presented in this progression.

Materials Needed: Each student or student pair will need access to a laptop, desktop, or Chromebook with internet access.

Link to Make Copy of Coding Activity - [Name Slides](#) (forced copy), or [Name Slides](#) (view).

Sequence: For this activity, students will create a picture code for their name like what they did in the application activity.

Student prompt: "We have learned how to use a method of decoding a message, so now we will use those skills and code our names. I am going to share a Slide Deck with you (you can either assign slides to students or have students choose their slide). Type your name in the top box and then use the Insert>Image>Search the Web function to find pictures of objects that start with each letter of your name to create a code under your name."

Teachers can have a document that has several images for students to use if they are not allowed to do web searches.

This extension activity should close out with the teacher showing the Slide Deck on a main board where students can view their peers' work.