Searching for the "Write" Words

Warm Up:
I can complete a word search and use the structure of a word search as an analogy to help me understand writing computer scripts (coding).

Lesson:
I can begin to identify cause and effect relationships by using "if this, then…" and how it relates to writing computer scripts (coding).

Discussion:
I can articulate in my own words why syntax, spelling, order, and grammar mechanics are important when writing computer scripts (coding).

Warm Up

The teacher will pass out the word search for the students to do and give them 10-15 minutes (adjust as needed) to work on the word search.

Post Warm Up Discussion

The teacher will begin to ask the students some questions about the word search, giving them time to think and discuss with their shoulder partner before answering.

- Did you notice anything about the topic or subject of the word search? (coding, computers, etc)
- What if one of the words was spelled wrong in the word search, but correctly in the word list. Would you be able to locate the word? Does it depend on how many letters were incorrect?
- What if all the letters were present, but in the wrong order/jumbled up?
- Did you notice the shape of the word search? What is it? How does that effect your ability to find the words? Did the words go across the white/empty spaces?
- Are the empty/white spaces important to the overall design of the word search? Why or why not?

Teach and Practice (We do)

Students will scan the QR code to go to code.org and follow along.
Students will watch the first video Maze Intro Coding with Blocks course C-F on the ActivBoard.
With the teacher's assistance the students will complete the Lesson 2: Coding with Angry Birds activity.
Afterward the students will flip the Blockly script and </> Show Code to view the JavaScript that is "under" the Blocky script.

Teacher will ask the questions below, students will discuss with their shoulder partner before responding:

- a) Did you notice anything about the Blockly script?
- b) What if you misspelled a word in the JavaScript, but not in Blockly? Would the script work?
- c) What if everything was spelled correctly the punctuation was incorrect?

d) What if you didn't follow the correct coding format? What if you had extra indentations? Spaces? What if you didn't use a new line for each instruction?

e) Are the empty spaces important to the overall design of the script? Why or why not?

Practice (You do/Assessment)

Students will pick a few (3-5) Blockly scripts to "translate" into JavaScript. Students will create a T-chart that shows the Blockly script and the JavaScript. Students will be sure to note that if they spell/type/punctuate/use incorrect grammar mechanics or syntax, then the computer script will either not work, or not work as intended.

Reflection

Teacher will ask the students:

- What connections can be made between the word search and writing computer scripts (coding)? (If either have misspellings, improper syntax, spacing/format errors, incorrect order, etc then they are ineffective; or something similar).

- How can use an "if this, then" statement to explain how a word search is a good analogy for a computer script (coding)? (If we do not spell the words in the command correctly, then the script will not work; or another example).

Extend Your Learning

Students will predict one (or more) examples of mistakes that could alter the computer script in an unintended way.

(Ex: turn right vs. turn night; move vs .mov)