Magnetic Poetry

Foreknowledge

This is partly a philosphical discussion since there is a line of reasoning that says you should teach objects first. In that instance, the answer would be "nothing"

Foreknowledge

If I am not doing an *objects first* approach, I like to do this *after* arrays and functions. Also, depending on the language, certain concepts may have already been introduced. For instance, in a course where JavaScript is prevalent, knowing about JS objects are useful.

Foreknowledge

Apart from particular language concepts, I'd want to make sure students could talk about aggregating multiple pieces of information (as with an array) and to have the ability to use functions to transform information.

Foreknowledge

Finally, I'd want them to know about magnetic poetry (the concept) and to have watched this demo video of the code running.

Provocation 1

What did we see in the video?

Provocation 1

Here I'd like the students to make observations about the individual words, perhaps identifiying their independent characteristics (position, wiggle, text) and their behaviors (response to clicking, dragging, hovering).

Provocation 1

I'd also be hoping that the observation that the groups *behave* similarly (the same) as the individual words do and that the word groups are composed of words.

Details

What might the code look like?

CS

Details

Here I am looking for speculation about how they might achieve this using existing knowledge. Possibilities are multiple arrays– one for every property by word, or an array of arrays (largely language dependent), as well as a mess of accompanying functions. I might here project some pseudocode that the class generates as the discussion evolves.

Provocation 2

What feels awkward about this solution?

Provocation 2

Here I'd hope things like having to reference multiple arrays or having to develop a 2D array approach emerge. I'd continue to project and watch the pseudocode develop.

Provocation 3

What would a be a more natural way to code the solution (speculate)?

Provocation 3

Here I'd be hoping the conversation builds on the notions of the previous provocation and evolves towards discussing the Words and Groups as things themselves.

What's Next

- Depending on time/situation, I might briefly introduce the programmatic constructs and/or show them the magnetic poetry demo code.

- A lab/reading introducing the concepts and prepping for the next class. I like to do "bouncing balls" for this.