

Name(s) \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

## Activity Guide - Text Compression Heuristics



This meant as a follow-on to the text compression activity.

### Vocabulary

**Heuristic:** a problem solving approach (typically an algorithm) to find a satisfactory solution where finding an optimal or exact solution is impractical or impossible.

### Develop a Heuristic

Continue working on compressing your poem using the Text Compression Widget. As you do so, develop a set of rules, or a “heuristic” that generally seems to provide good results.

- **Record your heuristic** as a list of steps that someone else unfamiliar with the problem could follow and still end up with decent compression.
- **Trade your heuristics with another group.** Are they clear and specific enough that you always know what to do? If not, provide feedback to one another and improve your heuristics to provide clearer instructions.
- Using another group’s heuristic, attempt to compress one or more of the poems in the tool. Record the amount of compression you achieve.

Poem	Compression Rate

### Record Your Conclusions

1. Do you think it’s possible to describe (or write) a specific set of instructions that a person could follow that would always result in better text compression than your heuristic? Why or why not?
  
2. Is there a way to know that a compressed piece of text is compressed the most possible? If yes, describe how you could determine it. If no, why not?