

Day 1: What is an Algorithm

Unit: Algorithm Writing

Day 1: What is an algorithm?

Do Now: Discuss with a partner what your definition is for algorithm.

Algorithm: a process or set of rules to be followed in calculations or other problem-solving operations, especially by a computer.

Example: Long Division

$$\begin{array}{r} 256 \\ 3 \overline{) 768} \\ \underline{6} \\ 16 \\ \underline{15} \\ 100 \\ \underline{90} \\ 100 \\ \underline{90} \\ 100 \\ \underline{90} \\ 100 \\ \underline{90} \\ 0 \end{array}$$

STEPS		
D	÷	Divide
M	×	Multiply
S	−	Subtract
B	↓	Bring down

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S'more Algorithm:

Assignment:

- 1) In groups of 3-4 discuss the overall process of making s'mores. Make sure to identify each of the pieces and the order of their use.
- 2) In the google doc titled S'more Algorithm write out what your algorithm like pseudocode
- 3) Test your algorithm with the s'more ingredients and edit your algorithm if necessary

Summary of Algorithm Writing:

Part 1: Planning

What elements do we need?

What is the general order?

Part 2: Writing out your plan (pseudocode)

Part 3: Writing, testing, and debugging

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Guessing Game:

Assignment:

- 1) Discuss the necessary elements of the program
 - 2) Write out an outline for the algorithm for the guessing game program
- Bonus) Edit your algorithm to include a counter which will end the game after 5 incorrect guesses