Sections 1-2:

* Variables: represent a value
  + Strings, lists, booleans, numbers
* Mathematical expressions: operations performed on variables
* Floats: data types similar to ints; can perform functions
* append function can be applied to lists
* Dictionaries: defined by curly brackets and equal signs
* Interchanging variables: use a temporary variable
* Boolean: true/ false
* Data Abstraction: provides a separation between the abstract properties of a data type and the concrete details of its representation
  + Lists can be split/ joined and organized using for loops

Sections 3-4:

* Sequencing: order of steps
* Iteration: loops that repeats things
* Concatenation: combining two strings
* Substring: characters part of a string
* Pseudocode: can describe what the code will do without writing the code
  + Helps see what program does without having to write it out
  + Helps people learn by providing instructions
  + Ex: flowchart

Sections 5-7:

* Boolean: true/ false
* Boolean Operators: produce booleans after used between 2 values
* Relational Operators: work between two values of the same type (operators)
* ==, !=, >, <, >=, <=
* Conditional: executing different statements based on the result of a true or false statement (booleans)
* Algorithm: A set of instructions that accomplish a task.
* Selection: The process that determines which parts of an algorithm is being executed based on a condition that is true or false.
* If/else: determines what follows after program; an if just resumes

Sections 8 and 10:

* Lists: used to collect and store data unlimited amounts of data
  + can use loops and functions that locate lists; use indexes and procedurally use it
  + syntax: list = ["item0", "item1", "item2"]
* Iteration: repetition in code; used in loops
  + Conditional iteration: function iterates a specific number of times; in this case while loops are efficient

Sections 9 and 11:

* Linear search: iterating through elements one by one; not gaining any new info by element- only if that element is it or not
* Binary search: gain an idea of where the element is in the list; is it to the left/ right of the one being checked
  + Cut off everything including or above median
  + Logarithmic time: reduce by half
* Floor division: rounding down