- Use **logical operators** on Booleans to compute whether an expression is True or False
- Use **conditionals** when reading and writing algorithms that make choices based on data
- Debug **logical errors** by using the scientific method

- Translate Boolean expressions to **truth tables** and **circuits**
- Translate **circuits** to **truth tables** and Boolean expressions
- Recognize how addition is done at the circuit level using **algorithms and abstraction**

- Use **while loops** when reading and writing algorithms to repeat actions while a certain condition is met
- Identify **start values**, **continuing conditions**, and **update actions** for **loop control variables**

- Use **for loops** over a **range** when reading and writing algorithms to repeat actions a specified number of times
- Recognize which numbers will be produced by a **range** expression

- Translate algorithms from **control flow charts** to Python code
- Use **nesting** of statements to create complex control flow

- **Index** and **slice** into strings to break them up into parts
- Use for loops over a range to loop over strings by **index**
- Use **built-in string operations and methods** to solve problems