

Unit 1.0 - Learning Targets

Essential Questions

- Why use Python?
- Why use IoT?
- What is Computational Thinking?

Key takeaways

- Python is one of the most popular programming languages in use and has easy to understand syntax.
- The Internet of Things is a growing field which should provide lots of opportunities in the future.
- Computational thinking is a systematic approach to problem solving often broken down into the following parts:
 - Decomposition
 - Pattern recognition
 - Abstraction
 - Algorithmic Thinking
 - Evaluation

Teaching Tips

The concept of Computational Thinking (CT) is something we all use all the time without calling it CT. Throughout the course continually refer back to the CT ideas. Much of what this curriculum does is expose students to new “patterns” and “algorithms” which they will hopefully recognize and reapply to solve different, more meaningful problems in the future.

There are some videos on Youtube describing CT. The video link provided in the slide show is one of many.