Computational Thinking:

- Allows us to take a complex problem, understand what the problem is and develop possible solutions.
- We can then present these solutions in a way that a computer, a human, or both, can understand.
- An interdisciplinary skill that students can apply in all subject areas

Source: https://www.bbc.co.uk/education/guides/sp92mp3/revision 21 December 2017

"Computational thinking is a fundamental skill for everyone, not just for computer scientists. To reading, writing, and arithmetic, we should add computational thinking to every child’s analytical ability.”


RELATIONSHIPS BETWEEN COMPUTER SCIENCE, SCIENCE AND ENGINEERING, AND MATH PRACTICES

CS + MATH
- Develop and use abstractions
  M2. Reason abstractly and quantitatively
  M7. Look for and make use of structure
  M8. Look for and express regularity in repeated reasoning
  CS4. Developing and Using Abstractions
- Use tools when collaborating
  M5. Use appropriate tools strategically
  CS2. Collaborating Around Computing
- Communicate precisely
  M6. Attend to precision
  CS7. Communicating About Computing

CS + SCI/ENG
- Communicate with data
  S4. Analyze and interpret data
  CS7. Communicating About Computing
- Create artifacts
  S3. Plan and carry out investigations
  S6. Construct explanations and design solutions
  CS4. Developing and Using Abstractions
  CS5. Creating Computational Artifacts
  CS6. Testing and Refining Computational Artifacts

CS + Math + SCI/ENG
- Model
  S2. Develop and use models
  M4. Model with mathematics
  CS4. Developing and Using Abstractions
  CS6. Testing and Refining Computational Artifacts
- Use computational thinking
  S5. Use mathematics and computational thinking
  CS3. Recognizing and Defining Computational Problems
  CS4. Developing and Using Abstractions
  CS5. Creating Computational Artifacts

Source: https://k12cs.org/computational-thinking/