Computational Thinking: Using Whiteboard Magnets to Teach Children
Students: Marlon Cobos, Grant Frederick, Daniel Kim
GPS: Ignorance is NOT Bliss
Advisors: Prof Robert Traver, Prof Paul Kirby, Carolyn Detora (PLA)

Problem
• Students are not learning about computer science in school
• Tools that teach basic computational thinking are not easy to find

Assessment
• Students were asked to solve a problem with the help of the magnets
• Both the students and the teacher were surveyed

Solution
• A set of magnets with pseudocode (These promote a programming mindset)

Further Developments
• Magnets with different shapes, words, and symbols
• Adaptable for any kind of problem
• Could be made into tiles

Conclusions
• Magnets on their own are not sufficient
• The pilot problem was too hard
• One part of the pilot problem was unclear
• Students need more practice to think computationally

Acknowledgements
• John Jay High School
• Thaddius Herman

Computational Thinking
- Decomposition
- Abstraction
- Pattern Recognition
- Algorithmic Design

Assessment:
- Did you enjoy the problem?
- Did you find the magnets helpful?
- Did the problems make you think differently?

References