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Senior Division

Group Website

**Process Paper**

As National History Day started, we were determined to pick a prominent topic that related to our interests. We first thought about how much computers had impacted and changed our lives. Later, we came across an MIT Computer Science lecture that stressed the revolution in computation of Alan Turing and how his ideas are still implemented today. It was clear that his work was very revolutionary. We later realized that he also had great exploits in code breaking during WWII. It became apparent that Alan Turing was a genius whose theories and ideas made computing possible.

Our preliminary research began at school and in the library. We started by looking at a series of books on Turing, which provided us with the majority of the basic background information. We also found a series of videos and documentaries about Turing’s work. From there, we looked into the specifics of the Turing Machine. In addition to his 1936 published paper, “On Computable Numbers with an Application to the Entscheidungsproblem,” we found sources on the math problems that led to Turing’s interest in mathematics. This soon led us to the discovery of the Alan Turing Digital Archive, which contains many digital copies of Turing’s unpublished works, letters, and notebooks. With these findings, we came upon many other primary sources. It was clear that the computer industry had formed because of his work. Everything in society today revolved around Turing’s ingenious Turing Machine.

While the bulk of our project may have been in researching the topic, we also spent a great portion of our time creating and designing the website itself on Weebly. We decided to create a website because the category itself emphasized the importance of computation, and it allowed us to easily present our information. Both of our animations were created using Microsoft PowerPoint and converted into .swf files using Adobe Flash Professional. We used Adobe Creative Suite to create the images and ensure a consistently high video quality. Realizing that it would be difficult to visualize the lasting impact of Turing’s work, we decided to use a timeline; we used the MIT Simile Timeline to provide a Java Script library off of which the timeline was built. Finally, we used qTip to enable hovering on images to enhance the visualization of the Turing Machine. These tools helped ensure and maintain a level of interactivity for the viewers.

Our topic relates to the theme of *Revolution, Reaction, and Reform* because Turing’s work in computation revolutionized how computing is used today. Whereas before it was a tool used by humans to perform calculations in mathematics, Turing introduced the machine so that they could help us carry out daily tasks.