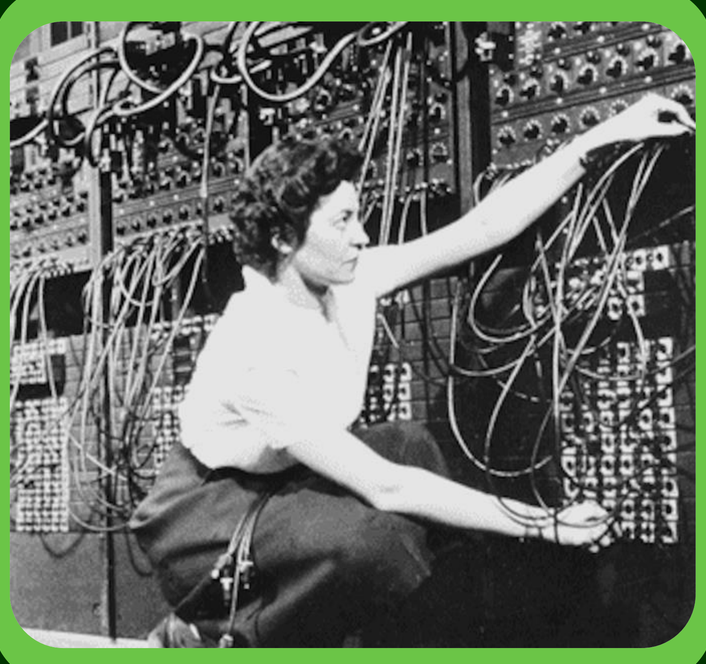
Women in STEM

Kathleen "Kay" Antonelli

- 1940s Took every mathematics course offered at Chestnut Hill College for Women
- 1942 Applied math calculating ballistic trajectories as a human "computer"
- 1945 Selected as first ENIAC programmer



She broke down complex differential equations into the smallest possible steps. Each of these had to be routed to the proper bank of electronics and performed in sequence, not simply a linear progression but a parallel one. Every datum and instruction had to reach the correct location in time for the operation that depended on it, to within 1/500th of a second.

During her work programming the ENIAC, Kay McNulty is credited with the invention of the subroutine. Her colleague, Jean Jennings, recalled when McNulty proposed the idea to solve the problem where the logical circuits did not have enough capacity to compute some trajectories.

What paths will you trailblaze that no one has traveled before?