Every year, roughly 30,000 tons of extraterrestrial material are deposited on Earth. The most visibly dramatic portion of this material is meteorites, leaving fiery trails in their wake as they streak across the sky; these theatrical bodies, however, make up only a small part of Earth’s cosmic debris collection. Micrometeorites are cosmic dust and pieces of larger meteorites that have entered Earth’s atmosphere, ranging from 25µm to 2mm, and it is this discrete shower that makes up the bulk of the planet’s extraterrestrial deposits. They are either captured by rainwater or are scattered across the surface by the wind by the ton every day, and it is this abundance which makes them the perfect research target. Our goals are: (1) To determine the most accessible and effective means to capture and separate micrometeorites from rainwater; (2) To act as a pilot project to catalyze a larger citizen science movement for the capture and analysis of micrometeorites; (3) To analyze the samples collected for data. The data collected will include the average number of micrometeorites found in a given volume of water, the average number of micrometeorites found over a given period of time, and the shape, chemical composition, and polarization of the micrometeorite samples. We will accomplish these goals by constructing a variety of simple rainwater collection and filtration apparatuses and testing each for effectiveness. Finally, we will present our research at the Alabama Academy of Sciences and the American Astronomical Society Conference and make our data publically accessible for use in citizen science research. In addition to functioning as a pilot project, we hope to use the methodology and sample data collected throughout this research to get area schools involved in later projects, in order to further STEM education in Lauderdale County.