There are harmful algal cysts and microplastics in the sediments in every body of water. This study investigated benthic sediment samples that were collected in the King County region of the Puget Sound by Washington State Department of Ecology's Marine Sediment Monitoring Team (MSMT). These were analyzed for grain-size and total organic content by students completing a summer research experience course at University of Washington Tacoma. The data collected can be correlated to various environmental factors such as: amount of aquatic life, storms, and dumping. A Beckman-Coulter Particle Size Analyzer was used to determine the grain-size distribution, and a loss on ignition technique was performed to determine the percentage of carbon. Maps were created to compare the percentage of total carbon content of wet and dry sediments. A ternary plot illustrated the distribution of the median grain-size. A linear regression showed that smaller grain sizes were associated with higher total organic content. There was no correlation with the depth that the sample was collected with grain size or total organic content. The percentage of carbon for the dry weight ranged from 1.975% to 12.288%, with a median of 6.764%, and 1.440% to 3.640% with a median of 3.051% for wet wet. Overall, finer grains are associated with greater total organic content. Future analyses should include correlating these results with other ecological data to include harmful algal cysts and microplastics in the sediments.