[200-word abstract](http://modelai.gettysburg.edu/#call)

k-Nearest Neighbor (kNN) is a classic first model that students learn when being introduced to machine learning. This activity creates an opportunity for students to walk through the steps of kNN in a fully unplugged space, which allows them to develop an intuition around why and how decisions are made in the algorithm beyond what is typically possible in a computational environment, like code or pseudo-code. The data for this activity comes from a random sample of a [Kaggle dataset](https://www.kaggle.com/datasets/riyakapoor/social-network-ads/) and is visualized in a scatterplot, then printed onto two-by-three-foot white boards. Students use dry-erase markers and rulers to classify 5 test points using various k values, choose the best hyperparameter (k value) based on the true values of the test points, and create boundaries in the space using their chosen hyperparameter. Finally, students respond to guided questions that require them to communicate their decisions and connect their understanding of overfitting/underfitting to their choice of k value. This process engages the students and immerses them in the decisions that are made throughout the classification process, creating a deeper understanding of the kNN machine learning model.