Abstract: The seven siblings at the Clark farm have a massive list of chores to do. How can they divide them up fairly? Can they divide them fairly? Luckily, designs can help! Designs are a combinatorial object, which encode fairness, balance, and geometric structure. They are useful in a remarkable variety of situations, from dividing chores fairly through designing statistical experiments. One of the key modern uses of designs is to provide flexible and efficient error-correcting codes, which protect data transmissions from errors. We will define designs, give many examples, and study how their representation as (0,1)-matrices provides a surprising link to cutting edge communications.