1. Consider the situation of determining the number of tennis balls needed to fill your classroom. With a partner or small group, take 5 minutes and make an estimate of the number of tennis balls required to fill the room.

Do you think your estimate is too small or too large? Why?

2. Using the materials provided, make a third estimate. This time, find a lower bound and upper bound for the number of tennis balls you think it would take to fill your classroom. Draw sketches as needed.

3. **REFLECTION**: In determining your group’s estimate, what mathematical model of a tennis ball did you use? What model of the classroom did you use? Did you make other simplifications or assumptions (for example, assuming there are no desks in the room)?