

1. In figure 1, we see a picture of the Science and Learning Center at Whittier College. Because we are undergoing a period of remote instruction, most of us have not seen inside this facility. Imagine, therefore, a laboratory inside the SLC in which you would like to perform scientific research. Using spatially descriptive detail, explain how you would proceed there from the entrance shown in Fig. 1. Give one example of experimentation being done inside this lab that you find interesting.

Starting at the main entrance facing the North Quad, proceed forward to the spiral glass staircase in the middle of the lobby. Walk down to the first floor and turn left. Proceed down the hallway, and enter the first laboratory on the right side. Inside on the table there is a plant embryo being cultivated, next to a fluorescent light.

2. Imagine you had the resources and space available to construct your own laboratory facility. Using spatial detail, describe exactly how it would be constructed and how it would function.

The laboratory is located in Maryville, Tennessee. It is shaped like a giant sphere made of glass, and has approximately 1064 square feet in diameter. The building is separated into 4 main lab rooms that surround the center main control room. The aerial layout of the building represents a circle with a large cross in the center that stretches to each end of the circle. Each of the 4 lab rooms are set up almost exactly the same, having: grass floors, weight measurers, shears, thermometers, lights, multiple tables, and water and food troughs. There are a total of 4 sheep in each lab room, adding to 16 sheep in total. The goal of the experiment is to test the effects of climate change on the quality of the sheep's wool. To test this, each room is set at different temperatures that fluctuate together throughout the day to simulate day and night time temperature conditions. Each of the sheep are giving the same amount of room, food, water, and are simply observed throughout the process. At the end of a 12 month period, every sheep is sheared and the quality of the wool is inspected by trained employees. This process is to be repeated at least thrice more times to determine if the results are valid or have bias.