

Building Security

STEM Sims

Lesson 3: Security Protection

The best way to fortify a building is to add security measures to the premises. This could range from a simple fence to an X-ray machine to a guard. A problem with these materials is that it is expensive and not appealing due to the invasion of privacy. What price will you pay for security?

Doing the Science

1. Start the Building Security Simulation by clicking on the “Sim” tab.
2. Click on “Security” on the left, underneath “Building Security”.
3. Read about the security, appeal, and cost ratings for each of the security materials by clicking on each item from the drop down menu.
4. Using the information provided, decide what building structure material you want to use and click on the name from the drop down menu to select the item.
5. Click to place the item down on the ground. Clicking on the item on the ground may change the direction.
6. Choose different security materials from the drop down menu and place as many you like on the ground.
7. Clicking on “Info” and then clicking on an item will display the security, appeal and cost rating.
8. Clicking on “Delete” and then clicking on an item will delete the item from the scene.
9. Once you are satisfied with the placement of the building security materials, count the number of each security material and record into Table 1 below.
10. Click on the “Start” button to have the Report Window rate your security, cost, and intrusiveness.
11. Record the number of stars for the security, cost, and intrusiveness into the table.
12. Click on “Restart” to clear the materials, or add more materials to the ground.
13. Repeat steps 2-13 for four more trials in an attempt to increase security, decrease cost, and decrease intrusiveness.

Table 1.

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5
3 ft. Concrete Fence					
6 ft. Concrete Fence					
Armed Guard					
Body Scanner					
Gate					
Guard House					
Metal Detector					
Strip Search					
Unarmed Guard					
X-Ray Machine					
Security					
Cost					
Intrusiveness					

Do You Understand?

1. Are there any security materials that are too extreme and should *not* be used for general security measures?

2. What combination provided the best security for the building?