

(20 pts) Approx. 2 days

The final part of our unit is about ‘Green Design’ and sustainability in architecture. A good architect can keep some basic things in mind as they design a home so that their designs are environmentally responsible and efficient for the home owner. Efficient designs can help reduce electricity costs, heating and cooling costs, building costs, and can help reduce the impact of the home’s construction on the environment. When architects and civil engineers work toward more efficient structures, that planning starts at the early stages while they are still considering basic design elements and layouts. In this part of the unit, we’ll look at both the Energy Star and LEED rating systems and how they can inform our residential home design.

1. Start by watching the presentations on *Energy Star*, *LEEDs*, and *LEEDs Part 2*. Together these presentations give a good overview of what designers need to consider when designing residential buildings that they want to be efficient and environmentally responsible. Take a full page of notes on these ideas, and make sure that your notes include possible improvements that home designers can consider to make their homes more efficient.
2. Next, look through the LEEDs checklist and consider your Habitat for Humanity house. What changes or improvements can you suggest for your own design to make it more efficient? No home design is every perfect, but there are definitely ways that they can be improved to be more sustainable and environmentally friendly. Complete the LEEDs checklist, giving yourself a score in each area. Also, suggest at least 1 improvement you could make to your initial design to help improve its efficiency.
3. Now, take a copy of the LEEDs checklist home and look around your own apartment or house. Think about the same kinds of improvements you want to make to your Habitat for Humanity house. If you were redesigning your own home, what changes would you make? Some might be small simple things, and others might be larger improvements. Record your suggested changes on the LEEDs checklist document.
4. Have Mr. Benshoof confirm your completed LEEDs checklists!

Part 3: Tasks	10-8 points	7-4 points	3-0 points
 Energy Efficiency Notes	+ You took a full page of notes on the <i>Energy Star</i> , <i>LEEDS</i> , and <i>LEEDs Part 2</i> presentations. + Your notes include design elements that can make homes more efficient	- Your notes are less than a page or missing important information	- Your notes are severely lacking
	5 points	4-3 points	2-1-0 points
 Energy Efficiency Checklist #1	+ You completed the LEEDs Checklist for your Habitat for Humanity home + You suggested improvements that would make your design more efficient	- You did not complete the whole checklist - You did not make suggestions for improvements	- You did not do the checklist at all.
 Energy Efficiency Checklist #2	+ You completed the LEEDs Checklist for your own home where you live + You suggested changes that would make your home more efficient	- You did not complete the whole checklist - You did not make suggestions for changes	- You did not do the checklist at all.

