

SCIENCE BULLETIN: LIGHT POLLUTION: BEYOND THE GLARE	
Questions	Light Pollution
1. What abiotic factor(s) have people changed?	<i>People changed the amount of light in ecosystems by using artificial lights.</i>
2. Why do people change the abiotic factor? Why does it help us?	<i>People like to be able to see at night causing an increase in artificial light (abiotic) at night.</i>
3. What are the consequences to the living (biotic) and non-living (abiotic) parts of the ecosystem of that abiotic change? Use the terms abiotic and biotic factors in your answer.	<i>When artificial lights (abiotic) reflect off of shiny surfaces, it mimics areas with lakes and other water sources. This threatens certain types of insects (biotic) because it causes them to lay their eggs out of water where they cannot survive.</i>
4. How do you know these are the consequences? Describe the evidence or data that support the claim that changing this abiotic factor impacts the surroundings.	<i>Satellite images of the artificial light produced by people and an experiment (not described) showing that insects are attracted to shiny surfaces.</i>
5. Suggest how you might solve this problem.	<i>Make shiny surfaces less shiny. Use different lights that do not mimic natural light, use motion sensors on light sources, use full cut-off lights that focus light only on the point that needs to be illuminated, turn off lights, etc.</i>