

**HIGH SCHOOL SCIENCE CHECKLIST**  
**Environment and Interaction of Living Things, Goal 12**  
**Illinois Learning Standard B**  
**Assessment Frameworks**

**PSAE test questions are derived from this list.**

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**ECOLOGY AND ADAPTATION**

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- \_\_\_\_\_ Understand the causes of ecosystem disruptions: changes in climate, human activity, introduction of a nonnative species, changes in population size, sudden natural disasters. **AG**
- \_\_\_\_\_ Know that fluctuations in population size are determined by the relative rates of birth, immigration, emigration, and death. **AG**
- \_\_\_\_\_ Know that concentrations of nonbiodegradable pollutants (e.g., pesticides) increase as we go up in a particular food chain (i.e., that the further we go in the direction of consumers whose food is tainted with pesticide, the more concentrated the levels of the pesticide). Understand that this process is called biological magnification. **AG**
- \_\_\_\_\_ Understand how agricultural run-off and pollution entering groundwater and surface water can affect drinking water and local wildlife. **AG**
- \_\_\_\_\_ Understand that a vital part of an ecosystem is the stability of its producers and decomposers. **AG**
- \_\_\_\_\_ Understand the effects upon the population of a species caused by various ecological factors, particularly (a) the presence of another species with competitive feeding habits, (b) the presence (or absence) of and number of predators, (c) the abundance or scarcity of food sources. **AG**