

**2021–22 NC Check-In Biology
Ecosystems
State Item Statistics**

	Content Standard	Item Number	Percent Correct by Item
Bio.2.1.1	Analyze the flow of energy and cycling of matter (such as water, carbon, nitrogen, and oxygen) through ecosystems, relating the significance of each to maintaining the health and sustainability of an ecosystem.	1	50.4
		7	57.1
		13	81.5
		19	80.2
Bio.2.1.2	Analyze the survival and reproductive success of organisms in terms of behavioral, structural, and reproductive adaptations.	2	75.8
		8	23.3
		14	40.0
		20	58.9
Bio.2.1.3	Explain various ways organisms interact with each other (including predation, competition, parasitism, mutualism) and with their environments, resulting in stability within ecosystems.	3	66.8
		9	88.1
		15	55.4
		21	75.6
Bio.2.1.4	Explain why ecosystems can be relatively stable over hundreds or thousands of years, even though populations may fluctuate (emphasizing availability of food, availability of shelter, number of predators, and disease).	4	80.4
		10	77.3
		16	57.6
		22	62.1
Bio.2.2.1	Infer how human activities (including population growth, pollution, global warming, burning of fossil fuels, habitat destruction, and introduction of nonnative species) may impact the environment.	5	75.4
		11	40.6
		17	72.7
		23	52.2
Bio.2.2.2	Explain how the use, protection, and conservation of natural resources by humans impact the environment from one generation to the next.	6	71.3
		12	78.5
		18	37.4
		24	91.9

Mean Percent Correct 64.6

Note: Results from this NC Check-In should not be compared across Check-Ins, districts, or the state.
Each Biology NC Check-In assesses different content standards.