

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

	Content Standard	Item Number	Percent Correct by Item
Bio.4.1.1	Compare the structures and functions of the major biological molecules (carbohydrates, proteins, lipids, and nucleic acids) as related to the survival of living organisms.	1	68.7
		6	66.5
		11	63.0
		15	48.6
Bio.4.1.2	Summarize the relationship among DNA, proteins and amino acids in carrying out the work of cells and how this is similar in all organisms.	2	53.4
		7	87.3
		12	43.2
		16	58.1
Bio.4.1.3	Explain how enzymes act as catalysts for biological reactions.	3	69.7
		8	92.8
		13	70.9
		17	66.7
Bio.4.2.1	Analyze photosynthesis and cellular respiration in terms of how energy is stored, released, and transferred within and between these systems.	4	71.4
		9	71.5
		14	57.1
		18	57.3
Bio.4.2.2	Explain ways that organisms use released energy for maintaining homeostasis (active transport).	5	68.3
		10	50.1
		19	70.1
		20	79.0

Mean Percent Correct 65.7

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.