Pre-Formatted Reports: Benchmark Test Item Analysis - New Format

Data Selections

Institution(s): All School Types,All Schools
Benchmark Administration: 10/27/14, 2014-15 Mid-Semester Biology
Trend Profile: 2014-2015
Subject: Life and Physical Sciences
Test Focus: Life and Physical Sciences
Test Level: All Benchmark Test Levels
Test Category: District Benchmark
Grade: All Grade Levels
Enrollment: Current

Number of questions: 50
Number of test-taking students: 694

Student Responses

Question - Type	Correct		Incorrect	Most Common Mistake		Point Value	Points Achieved / Possible	P-Value/ Item Mean	Discrimination
	Rate	Value	Total Rate	Rate	Value				
1 - Multiple Choice	44%	B	56%	32%	A	1	302 / 694	0.44	0.34
2 - Multiple Choice	45%	D	55%	24%	A	1	315 / 694	0.45	0.33
3 - Multiple Choice	52%	C	48%	25%	D	1	358 / 694	0.51	0.43
4 - Multiple Choice	64%	A	36%	13%	C	1	442 / 694	0.64	0.45
5 - Multiple Choice	43%	A	57%	41%	C	1	300 / 694	0.43	0.12
6 - Multiple Choice	39%	B	61%	28%	C	1	270 / 694	0.39	0.36
7 - Multiple Choice	27%	D	73%	26%	A	1	188 / 694	0.27	0.48
8 - Multiple Choice	45%	D	55%	19%	C	1	311 / 694	0.45	0.52
9 - Multiple Choice	59%	C	41%	19%	B	1	410 / 694	0.59	0.51
10 - Multiple Choice	45%	B	55%	22%	C	1	310 / 694	0.45	0.25
11 - Multiple Choice	50%	A	50%	19%	D	1	346 / 694	0.50	0.38
12 - Multiple Choice	69%	C	31%	16%	A	1	476 / 694	0.69	0.52
13 - Multiple Choice	40%	B	60%	26%	D	1	280 / 694	0.40	0.38
14 - Multiple Choice	74%	B	26%	14%	C	1	516 / 694	0.74	0.50
15 - Multiple Choice	62%	D	38%	14%	A	1	428 / 694	0.62	0.54
16 - Multiple Choice	56%	B	44%	19%	A	1	390 / 694	0.56	0.43
17 - Multiple Choice	35%	A	65%	31%	C	1	241 / 694	0.35	0.42
18 - Multiple Choice	63%	D	37%	16%	B	1	437 / 694	0.63	0.48
19 - Multiple Choice	67%	A	33%	20%	B	1	467 / 694	0.67	0.54
20 - Multiple Choice	49%	D	51%	21%	B	1	342 / 694	0.49	0.41

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21 - Multiple Choice	19%	B	81%	34%	C	1	133 / 694	0.19	0.06
22 - Multiple Choice	56%	C	44%	21%	B	1	387 / 694	0.56	0.52
23 - Multiple Choice	55%	B	45%	15%	D	1	383 / 694	0.55	0.45
24 - Multiple Choice	41%	A	59%	25%	B	1	285 / 694	0.41	0.41
25 - Multiple Choice	30%	B	70%	30%	D	1	207 / 694	0.30	0.29
26 - Multiple Choice	46%	D	54%	21%	A	1	316 / 694	0.46	0.46
27 - Multiple Choice	74%	C	26%	9%	B	1	511 / 694	0.73	0.55
28 - Multiple Choice	60%	D	40%	13%	C	1	416 / 694	0.60	0.62
29 - Multiple Choice	58%	A	42%	15%	C	1	402 / 694	0.58	0.52
30 - Multiple Choice	31%	B	69%	24%	C	1	212 / 694	0.30	0.29
31 - Multiple Choice	46%	B	54%	24%	A	1	317 / 694	0.46	0.37
32 - Multiple Choice	35%	D	65%	22%	C	1	245 / 694	0.35	0.38
33 - Multiple Choice	53%	A	47%	27%	B	1	371 / 694	0.53	0.47
34 - Multiple Choice	42%	C	58%	23%	A	1	292 / 694	0.42	0.25
35 - Multiple Choice	64%	A	36%	11%	B	1	443 / 694	0.64	0.45
36 - Multiple Choice	68%	C	32%	13%	A	1	469 / 694	0.68	0.52
37 - Multiple Choice	40%	B	60%	29%	A	1	276 / 694	0.40	0.56
38 - Multiple Choice	22%	B	78%	29%	D	1	153 / 694	0.22	0.02
39 - Multiple Choice	37%	D	63%	21%	B	1	257 / 694	0.37	0.53
40 - Multiple Choice	38%	D	62%	20%	B	1	265 / 694	0.38	0.42
41 - Multiple Choice	40%	A	60%	24%	C	1	279 / 694	0.40	0.38
42 - Multiple Choice	51%	C	49%	17%	B	1	355 / 694	0.51	0.40
43 - Multiple Choice	44%	A	56%	26%	C	1	305 / 694	0.44	0.38
44 - Multiple Choice	51%	C	49%	19%	A	1	352 / 694	0.51	0.41
45 - Multiple Choice	44%	C	56%	22%	B	1	304 / 694	0.44	0.38
46 - Multiple Choice	53%	B	47%	14%	A	1	371 / 694	0.54	0.46
47 - Multiple Choice	31%	A	69%	20%	B	1	215 / 694	0.31	0.39
48 - Multiple Choice	19%	A	81%	35%	B	1	132 / 694	0.19	0.23
49 - Multiple Choice	40%	A	60%	23%	C	1	278 / 694	0.40	0.46
50 - Multiple Choice	17%	A	83%	31%	B	1	120 / 694	0.17	0.13
Summary	47%		53%				**324 / 694**		

P-value represents an item's difficulty as evaluated by dividing the total number of correct responses by the total number of students tested. P-value is calculated for true/false, multiple choice, gridded or hot spot-single response items.

Item Mean is the average score for student responses to an open response question or to a multi-part question. Item Mean is calculated for inline response, matching or hot spot-multiple selections items.

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Discrimination or Item Total Score Correlation is the correlation between the question score and the overall test score and indicates the extent to which success on an item corresponds to success on the test.

Standards Alignment to NC Standards

Question	ID	Standard Description
1 - Multiple Choice	**NCES.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.
2 - Multiple Choice	**NCES.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.
3 - Multiple Choice	**NCES.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.
4 - Multiple Choice	**NCES.Bio.4.1.3**	Explain how enzymes act as catalysts for biological reactions.
5 - Multiple Choice	**NCES.Bio.4.1.3**	Explain how enzymes act as catalysts for biological reactions.
6 - Multiple Choice	**NCES.Bio.4.1.3**	Explain how enzymes act as catalysts for biological reactions.
7 - Multiple Choice	**NCES.Bio.4.1.3**	Explain how enzymes act as catalysts for biological reactions.
8 - Multiple Choice	**NCES.Bio.4.2.1**	Analyze photosynthesis and cellular respiration in terms of how energy is stored, released, and transferred within and between these systems.
9 - Multiple Choice	**NCES.Bio.4.2.1**	Analyze photosynthesis and cellular respiration in terms of how energy is stored, released, and transferred within and between these systems.
10 - Multiple Choice	**NCES.Bio.4.2.1**	Analyze photosynthesis and cellular respiration in terms of how energy is stored, released, and transferred within and between these systems.
11 - Multiple Choice	**NCES.Bio.4.2.1**	Analyze photosynthesis and cellular respiration in terms of how energy is stored, released, and transferred within and between these systems.
12 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
13 - Multiple Choice	**NCES.Bio.1.1.1**	Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
14 - Multiple Choice	**NCES.Bio.1.1.1**	Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
15 - Multiple Choice	**NCES.Bio.1.1.1**	Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
16 - Multiple Choice	**NCES.Bio.1.1.1**	Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
17 - Multiple Choice	**NCES.Bio.1.1.1**	Summarize the structure and function of organelles in eukaryotic cells (including the nucleus, plasma membrane, cell wall, mitochondria, vacuoles, chloroplasts, and ribosomes) and ways that these organelles interact with each other to perform the function of the cell.
18 - Multiple Choice	**NCES.Bio.1.1.2**	Compare prokaryotic and eukaryotic cells in terms of their general structures (plasma membrane and genetic material) and degree of complexity.
19 - Multiple Choice	**NCES.Bio.1.1.2**	Compare prokaryotic and eukaryotic cells in terms of their general structures (plasma membrane and genetic material) and degree of complexity.

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20 - Multiple Choice	**NCES.Bio.1.1.2**	Compare prokaryotic and eukaryotic cells in terms of their general structures (plasma membrane and genetic material) and degree of complexity.
21 - Multiple Choice	**NCES.Bio.1.1.2**	Compare prokaryotic and eukaryotic cells in terms of their general structures (plasma membrane and genetic material) and degree of complexity.
22 - Multiple Choice	**NCES.Bio.1.1.3**	Explain how instructions in DNA lead to cell differentiation and result in cells specialized to perform specific functions in multicellular organisms.
23 - Multiple Choice	**NCES.Bio.1.1.3**	Explain how instructions in DNA lead to cell differentiation and result in cells specialized to perform specific functions in multicellular organisms.
24 - Multiple Choice	**NCES.Bio.1.1.3**	Explain how instructions in DNA lead to cell differentiation and result in cells specialized to perform specific functions in multicellular organisms.
25 - Multiple Choice	**NCES.Bio.1.1.3**	Explain how instructions in DNA lead to cell differentiation and result in cells specialized to perform specific functions in multicellular organisms.
26 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
27 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
28 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
29 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
30 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
31 - Multiple Choice	**NCES.Bio.1.2.1**	Explain how homeostasis is maintained in the cell and within an organism in various environments (including temperature and pH).
32 - Multiple Choice	**NCES.Bio.1.2.2**	Analyze how cells grow and reproduce in terms of interphase, mitosis and cytokinesis.
33 - Multiple Choice	**NCES.Bio.1.2.2**	Analyze how cells grow and reproduce in terms of interphase, mitosis and cytokinesis.
34 - Multiple Choice	**NCES.Bio.3.2.1**	Explain the role of meiosis in sexual reproduction and genetic variation.
35 - Multiple Choice	**NCES.Bio.3.2.1**	Explain the role of meiosis in sexual reproduction and genetic variation.
36 - Multiple Choice	**NCES.Bio.1.2.2**	Analyze how cells grow and reproduce in terms of interphase, mitosis and cytokinesis.
37 - Multiple Choice	**NCES.Bio.1.2.2**	Analyze how cells grow and reproduce in terms of interphase, mitosis and cytokinesis.
38 - Multiple Choice	**NCES.Bio.1.2.3**	Explain how specific cell adaptations help cells survive in particular environments (focus on unicellular organisms).
39 - Multiple Choice	**NCES.Bio.1.2.3**	Explain how specific cell adaptations help cells survive in particular environments (focus on unicellular organisms).
40 - Multiple Choice	**NCES.Bio.3.1.1**	Explain the double-stranded, complementary nature of DNA as related to its function in the cell.
41 - Multiple Choice	**NCES.Bio.3.1.2**	Explain how DNA and RNA code for proteins and determine traits.
42 - Multiple Choice	**NCES.Bio.3.1.1**	Explain the double-stranded, complementary nature of DNA as related to its function in the cell.
43 - Multiple Choice	**NCES.Bio.3.1.2**	Explain how DNA and RNA code for proteins and determine traits.
44 - Multiple Choice	**NCES.Bio.3.1.2**	Explain how DNA and RNA code for proteins and determine traits.
45 - Multiple Choice	**NCES.Bio.3.1.2**	Explain how DNA and RNA code for proteins and determine traits.
46 - Multiple Choice	**NCES.Bio.3.1.3**	Explain how mutations in DNA that result from interactions with the environment (i.e. radiation and chemicals) or new combinations in existing genes lead to changes in function and phenotype.
47 - Multiple Choice	**NCES.Bio.3.1.2**	Explain how DNA and RNA code for proteins and determine traits.

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48 - Multiple Choice	**NCES.Bio.3.2.1**	Explain the role of meiosis in sexual reproduction and genetic variation.
49 - Multiple Choice	**NCES.Bio.3.2.1**	Explain the role of meiosis in sexual reproduction and genetic variation.
50 - Multiple Choice	**NCES.Bio.3.2.1**	Explain the role of meiosis in sexual reproduction and genetic variation.

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