### NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION IN TRACE Reports

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

#### **Data Selections**

Institution(s): Middle School, All Schools

Benchmark Administration: 01/29/15, 2014-15 BA 2 7th Science

Trend Profile: 2014-2015 Subject: Life and Physical Sciences Test Focus: All Test Focuses Test Level: 07

**Test Category:** District Benchmark

**Grade:** 07 **Enrollment:** Current

Number of questions: 36

Number of test-taking students: 1353

#### **Student Responses**

	Correct	Correct		Incorrect Most Common Mistake			Points	P- Value/	<b>.</b>
Question - Type	Rate	Value	Total Rate	Rate	Value	Point Value	Achieved / Possible	Item Mean	Discriminati on
1 - Multiple Choice	42%	В	58%	30%	С	1	566 / 1353	0.42	0.13
2 - Multiple Choice	60%	В	40%	20%	С	1	810 / 1353	0.60	0.41
3 - Multiple Choice	54%	D	46%	20%	Α	1	730 / 1353	0.53	0.50
4 - Multiple Choice	60%	В	40%	21%	Α	1	814 / 1353	0.60	0.42
5 - Multiple Choice	78%	Α	22%	10%	В	1	1056 / 1353	0.78	0.41
6 - Multiple Choice	51%	В	49%	20%	С	1	685 / 1353	0.50	0.43
7 - Multiple Choice	54%	С	46%	22%	Α	1	726 / 1353	0.53	0.49
8 - Multiple Choice	61%	Α	39%	17%	С	1	824 / 1353	0.61	0.45
9 - Multiple Choice	72%	С	28%	14%	В	1	970 / 1353	0.72	0.39
10 - Multiple Choice	70%	В	30%	13%	С	1	953 / 1353	0.70	0.36
11 - Multiple Choice	45%	Α	55%	31%	С	1	605 / 1353	0.44	0.23
12 - Multiple Choice	50%	Α	50%	27%	В	1	674 / 1353	0.50	0.36
13 - Multiple Choice	40%	В	60%	29%	A	1	543 / 1353	0.40	0.35
14 - Multiple Choice	60%	Α	40%	16%	В	1	807 / 1353	0.59	0.51
15 - Multiple Choice	53%	D	47%	20%	В	1	721 / 1353	0.53	0.50
16 - Multiple Choice	59%	В	41%	22%	D	1	799 / 1353	0.59	0.41
17 - Multiple Choice	64%	С	36%	16%	Α	1	869 / 1353	0.64	0.34
18 - Multiple Choice	72%	Α	28%	19%	С	1	977 / 1353	0.72	0.52
19 - Multiple Choice	68%	С	32%	14%	D	1	918 / 1353	0.68	0.48
20 - Multiple Choice	62%	В	38%	22%	Α	1	841 / 1353	0.62	0.45

### NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION IN TRACE Reports

21 - Multiple Choice	42%	A	58%	37%	В	1	573 / 1353	0.42	0.37
22 - Multiple Choice	22%	С	78%	39%	D	1	301 / 1353	0.22	0.07
23 - Multiple Choice	65%	С	35%	18%	Α	1	882 / 1353	0.65	0.52
24 - Multiple Choice	43%	В	57%	25%	D	1	577 / 1353	0.43	0.35
25 - Multiple Choice	59%	D	41%	17%	Α	1	798 / 1353	0.59	0.50
26 - Multiple Choice	71%	A	29%	13%	С	1	962 / 1353	0.71	0.43
27 - Multiple Choice	50%	A	50%	22%	В	1	681 / 1353	0.50	0.43
28 - Multiple Choice	68%	A	32%	12%	С	1	917 / 1353	0.67	0.53
29 - Multiple Choice	45%	A	55%	21%	С	1	606 / 1353	0.45	0.43
30 - Multiple Choice	37%	Α	63%	35%	D	1	505 / 1353	0.37	0.17
31 - Multiple Choice	60%	D	40%	15%	Α	1	807 / 1353	0.59	0.59
32 - Multiple Choice	42%	A	58%	26%	D	1	563 / 1353	0.41	0.44
33 - Multiple Choice	67%	В	33%	14%	Α	1	902 / 1353	0.66	0.53
34 - Multiple Choice	70%	D	30%	16%	Α	1	944 / 1353	0.70	0.53
35 - Multiple Choice	22%	В	78%	45%	С	1	297 / 1353	0.22	-0.06
36 - Multiple Choice	49%	С	51%	27%	Α	1	657 / 1353	0.48	0.39
Summary	55%		45%				746 / 1353		

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.

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.

ential Standards	
	ential Standards

Question	ID	Standard Description
1 - Multiple Choice	NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
2 - Multiple Choice	NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
3 - Multiple Choice	NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
4 - Multiple Choice	NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
5 - Multiple Choice	NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts,

# NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION Mented Reports

	mitochondria, and vacuoles).
6 - Multiple Choice NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
7 - Multiple Choice NCES.7.L.1.2	Compare the structures and functions of plant and animal cells, including major organelles (cell membrane, cell wall, nucleus, chloroplasts, mitochondria, and vacuoles).
8 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
9 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
10 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
11 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
12 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
13 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
14 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
15 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
16 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
17 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
18 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
19 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
20 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
21 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
22 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
23 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
24 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
25 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
26 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.

# NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION Mented Reports

27 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
28 - Multiple Choice NCES.7.L.1.1	Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including:
29 - Multiple Choice NCES.Bio.1.2.3	Explain how specific cell adaptations help cells survive in particular environments (focus on unicellular organisms).
30 - Multiple Choice NCES.Bio.1.2.3	Explain how specific cell adaptations help cells survive in particular environments (focus on unicellular organisms).
31 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
32 - Multiple Choice NCES.7.L.1.1	Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including:
33 - Multiple Choice NCES.7.L.1.1	Compare the structures and life functions of single-celled organisms that carry out all of the basic functions of life including:
34 - Multiple Choice NCES.7.L.1.4	Summarize the general functions of the major systems of the human body (digestion, respiration, reproduction, circulation, and excretion) and ways that these systems interact with each other to sustain life.
35 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.
36 - Multiple Choice NCES.7.L.1.3	Summarize the hierarchical organization of multi-cellular organisms from cells to tissues to organs to systems to organisms.