

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

Data Selections

Institution(s): All School Types,All Schools
Benchmark Administration: 09/03/14, 2014-15 Baseline Physics
Trend Profile: 2014-2015
Subject: Life and Physical Sciences
Test Focus: All Test Focuses
Test Level: 09
Test Category: District Benchmark
Grade: 09
Enrollment: Any year

Number of questions: 40
 Number of test-taking students: 103

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	54%	B	46%	27%	C	1	56 / 103	0.55	0.37
2 - Multiple Choice	67%	B	33%	15%	C	1	69 / 103	0.72	0.35
3 - Multiple Choice	69%	B	31%	14%	C	1	71 / 103	0.77	0.36
4 - Multiple Choice	43%	D	57%	30%	B	1	44 / 103	0.38	0.26
5 - Multiple Choice	74%	C	26%	14%	D	1	76 / 103	0.73	0.42
6 - Multiple Choice	11%	C	89%	69%	A	1	11 / 103	0.09	-0.23
7 - Multiple Choice	94%	D	6%	1%	A	1	97 / 103	0.97	0.56
8 - Multiple Choice	90%	D	10%	3%	B	1	93 / 103	0.94	0.45
9 - Multiple Choice	71%	A	29%	13%	D	1	73 / 103	0.74	0.39
10 - Multiple Choice	24%	D	76%	44%	A	1	25 / 103	0.28	0.37
11 - Multiple Choice	5%	D	95%	65%	A	1	5 / 103	0.07	0.17
12 - Multiple Choice	56%	D	44%	22%	B	1	58 / 103	0.59	0.44
13 - Multiple Choice	67%	C	33%	17%	A	1	69 / 103	0.67	0.32
14 - Multiple Choice	49%	A	51%	39%	B	1	50 / 103	0.45	0.20
15 - Multiple Choice	46%	C	54%	30%	B	1	47 / 103	0.48	0.26
16 - Multiple Choice	28%	B	72%	31%	C	1	29 / 103	0.33	0.28
17 - Multiple Choice	77%	C	23%	13%	B	1	79 / 103	0.81	0.49
18 - Multiple Choice	64%	A	36%	22%	B	1	66 / 103	0.70	0.31
19 - Multiple Choice	82%	A	18%	12%	D	1	84 / 103	0.83	0.49
20 - Multiple Choice	47%	A	53%	28%	C	1	48 / 103	0.46	0.23

NORTH CAROLINA DEPARTMENT OF PUBLIC INSTRUCTION PreFormatted Reports

21 - Multiple Choice	29%	B	71%	27%	A	1	30 / 103	0.29	0.12
22 - Multiple Choice	20%	C	80%	46%	B	1	21 / 103	0.20	0.23
23 - Multiple Choice	44%	A	56%	44%	B	1	45 / 103	0.45	0.44
24 - Multiple Choice	47%	B	53%	29%	A	1	48 / 103	0.49	0.29
25 - Multiple Choice	42%	C	58%	29%	B	1	43 / 103	0.45	0.05
26 - Multiple Choice	51%	D	49%	21%	C	1	53 / 103	0.52	0.30
27 - Multiple Choice	17%	A	83%	41%	C	1	17 / 103	0.14	0.11
28 - Multiple Choice	59%	B	41%	16%	C	1	61 / 103	0.69	0.24
29 - Multiple Choice	82%	D	18%	13%	B	1	84 / 103	0.86	0.52
30 - Multiple Choice	39%	A	61%	30%	C	1	40 / 103	0.44	0.43
31 - Multiple Choice	34%	B	66%	26%	A	1	35 / 103	0.33	0.10
32 - Multiple Choice	27%	A	73%	40%	B	1	28 / 103	0.30	0.19
33 - Multiple Choice	13%	A	87%	45%	C	1	13 / 103	0.11	0.03
34 - Multiple Choice	21%	B	79%	34%	A	1	22 / 103	0.24	0.22
35 - Multiple Choice	23%	D	77%	39%	B	1	24 / 103	0.23	0.06
36 - Multiple Choice	16%	B	84%	60%	C	1	16 / 103	0.19	0.37
37 - Multiple Choice	22%	C	78%	39%	B	1	23 / 103	0.23	-0.01
38 - Multiple Choice	58%	B	42%	18%	A	1	60 / 103	0.62	0.36
39 - Multiple Choice	25%	B	75%	37%	C	1	26 / 103	0.26	0.31
40 - Multiple Choice	36%	A	64%	38%	B	1	37 / 103	0.35	0.15
Summary	46%		54%				47 / 103		

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.

Standards Alignment to NC Essential Standards

Question	ID	Standard Description
1 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.
2 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.
3 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.
4 - Multiple Choice	NCES.Phy.1.2	Analyze systems of forces and their interaction with matter.
5 - Multiple Choice	NCES.Phy.1.3	Analyze the motion of objects based on the principles of conservation of momentum, conservation of energy and impulse.
6 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.

7 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.
8 - Multiple Choice	NCES.Phy.1.2	Analyze systems of forces and their interaction with matter.
9 - Multiple Choice	NCES.Phy.1.1	Analyze the motion of objects.
10 - Multiple Choice	NCES.Phy.2.2	Analyze the behavior of waves.
11 - Multiple Choice	NCES.Phy.2.3	Analyze the nature of moving charges and electric circuits.
12 - Multiple Choice	NCES.Phy.3.1	Explain charges and electrostatic systems.
13 - Multiple Choice	NCES.Phy.3.1	Explain charges and electrostatic systems.
14 - Multiple Choice	NCES.Phy.3.1	Explain charges and electrostatic systems.
15 - Multiple Choice	NCES.Phy.3.2	Explain the concept of magnetism.
16 - Multiple Choice	NCES.Phy.3.2	Explain the concept of magnetism.
17 - Multiple Choice	NCES.Phy.1.2	Analyze systems of forces and their interaction with matter.
18 - Multiple Choice	NCES.Phy.1.2	Analyze systems of forces and their interaction with matter.
19 - Multiple Choice	NCES.Phy.3.2	Explain the concept of magnetism.
20 - Multiple Choice	NCES.Phy.1.1.1	Analyze motion graphically and numerically using vectors, graphs and calculations.
21 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
22 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
23 - Multiple Choice	NCES.Phy.1.1.2	Analyze motion in one dimension using time, distance, displacement, velocity, and acceleration.
24 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
25 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
26 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
27 - Multiple Choice	NCES.Phy.1.1.3	Analyze motion in two dimensions using angle of trajectory, time, distance, displacement, velocity, and acceleration.
28 - Multiple Choice	NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
29 - Multiple Choice	NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
30 - Multiple Choice	NCES.Phy.1.2.3	Explain forces using Newton's laws of motion as well as the universal law of gravitation.
31 - Multiple Choice	NCES.Phy.1.3.2	Analyze the motion of objects based on the relationship between momentum and impulse.
32 - Multiple Choice	NCES.Phy.2.1.1	Interpret data on work and energy presented graphically and numerically.
33 - Multiple Choice	NCES.Phy.3.2.1	Explain the relationship between magnetic domains and magnetism.
34 - Multiple Choice	NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
35 - Multiple Choice	NCES.Phy.2.1.3	Explain the relationship among work, power and energy.
36 - Multiple Choice	NCES.Phy.2.2.1	Analyze how energy is transmitted through waves, using the fundamental characteristics of waves: wavelength, period, frequency, amplitude, and wave velocity.
37 - Multiple Choice	NCES.Phy.2.2.1	Analyze how energy is transmitted through waves, using the fundamental characteristics of waves: wavelength, period, frequency, amplitude, and wave velocity.
38 - Multiple Choice	NCES.Phy.2.2.1	Analyze how energy is transmitted through waves, using the fundamental characteristics of waves: wavelength, period, frequency, amplitude, and wave velocity.

- 39 - Multiple Choice NCES.Phy.2.2.1** Analyze how energy is transmitted through waves, using the fundamental characteristics of waves: wavelength, period, frequency, amplitude, and wave velocity.
-
- 40 - Multiple Choice NCES.Phy.3.2.3** Explain how transformers and power distributions are applications of electromagnetism.
-