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 6th Science

Trend Profile: 2014-2015 Subject: Life and Physical Sciences Test Focus: All Test Focuses Test Level: 06

Test Category: District Benchmark

Grade: 06 **Enrollment:** Current

Number of questions: 30

Number of test-taking students: 1320

Student Responses

	Correct	Correct		Most Common Mistake			Points	P- Value/	
Question - Type	Rate	Value	Total Rate	Rate	Value	Point Value	Achieved / Possible	Item Mean	Discriminati on
1 - Multiple Choice	41%	D	59%	37%	Α	1	545 / 1320	0.41	0.20
2 - Multiple Choice	48%	С	52%	40%	Α	1	637 / 1320	0.48	0.35
3 - Multiple Choice	83%	A	17%	7%	С	1	1101 / 1320	0.83	0.25
4 - Multiple Choice	47%	С	53%	25%	В	1	617 / 1320	0.47	0.40
5 - Multiple Choice	93%	С	8%	3%	В	1	1221 / 1320	0.93	0.30
6 - Multiple Choice	37%	С	63%	32%	D	1	483 / 1320	0.37	0.25
7 - Multiple Choice	61%	D	39%	26%	Α	1	803 / 1320	0.60	0.42
8 - Multiple Choice	56%	D	44%	22%	В	1	743 / 1320	0.56	0.49
9 - Multiple Choice	34%	С	66%	43%	Α	1	451 / 1320	0.34	0.35
10 - Multiple Choice	70%	D	30%	16%	В	1	930 / 1320	0.70	0.49
11 - Multiple Choice	53%	В	48%	24%	С	1	693 / 1320	0.52	0.41
12 - Multiple Choice	70%	С	30%	18%	В	1	919 / 1320	0.69	0.38
13 - Multiple Choice	22%	D	78%	42%	В	1	296 / 1320	0.22	0.18
14 - Multiple Choice	46%	D	54%	33%	С	1	601 / 1320	0.45	0.39
15 - Multiple Choice	55%	Α	45%	37%	В	1	730 / 1320	0.55	0.39
16 - Multiple Choice	63%	A	37%	17%	В	1	829 / 1320	0.63	0.53
17 - Multiple Choice	65%	С	35%	14%	Α	1	853 / 1320	0.64	0.41
18 - Multiple Choice	48%	A	52%	25%	В	1	635 / 1320	0.48	0.34
19 - Multiple Choice	54%	В	46%	34%	D	1	714 / 1320	0.54	0.40

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20 - Multiple Choice	65%	D	35%	22%	В	1	858 / 1320	0.65	0.30
21 - Multiple Choice	82%	В	18%	8%	С	1	1082 / 1320	0.82	0.40
22 - Multiple Choice	40%	С	60%	32%	D	1	527 / 1320	0.40	0.34
23 - Multiple Choice	70%	D	30%	14%	В	1	922 / 1320	0.70	0.53
24 - Multiple Choice	60%	С	40%	19%	В	1	791 / 1320	0.60	0.39
25 - Multiple Choice	35%	D	65%	32%	В	1	462 / 1320	0.35	0.37
26 - Multiple Choice	63%	A	37%	20%	С	1	826 / 1320	0.62	0.37
27 - Multiple Choice	49%	D	51%	29%	Α	1	650 / 1320	0.49	0.34
28 - Multiple Choice	82%	A	18%	8%	В	1	1079 / 1320	0.82	0.34
29 - Multiple Choice	59%	В	41%	19%	D	1	778 / 1320	0.59	0.39
30 - Multiple Choice	92%	A	8%	4%	С	1	1214 / 1320	0.92	0.38
Summary	58%		42%				766 / 1320		

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 Al	lianment to	NC Essenti	ial Standards

Question	ID	Standard Description
1 - Multiple Choice	NCES.6.P.3.1	Illustrate the transfer of heat energy from warmer objects to cooler ones using examples of conduction, radiation and convection and the effects that may result.
2 - Multiple Choice	NCES.6.P.3.1	Illustrate the transfer of heat energy from warmer objects to cooler ones using examples of conduction, radiation and convection and the effects that may result.
3 - Multiple Choice	NCES.6.P.3.3	Explain the suitability of materials for use in technological design based on a response to heat (to include conduction, expansion, and contraction) and electrical energy (conductors and insulators).
4 - Multiple Choice	NCES.6.P.3.2	Explain the effects of electromagnetic waves on various materials to include absorption, scattering, and change in temperature.
5 - Multiple Choice	NCES.6.P.3.3	Explain the suitability of materials for use in technological design based on a response to heat (to include conduction, expansion, and contraction) and electrical energy (conductors and insulators).
6 - Multiple Choice	NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
7 - Multiple Choice	NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
8 - Multiple Choice	NCES.6.P.1.1	Compare the properties of waves to the wavelike property of energy in earthquakes, light and sound.

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9 - Multiple Choice NCES.6.P.1.1	Compare the properties of waves to the wavelike property of energy in earthquakes, light and sound.
10 - Multiple Choice NCES.6.P.3.3	Explain the suitability of materials for use in technological design based on a response to heat (to include conduction, expansion, and contraction) and electrical energy (conductors and insulators).
11 - Multiple Choice NCES.6.P.3.1	Illustrate the transfer of heat energy from warmer objects to cooler ones using examples of conduction, radiation and convection and the effects that may result.
12 - Multiple Choice NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
13 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
14 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
15 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
16 - Multiple Choice NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
17 - Multiple Choice NCES.6.E.1.3	Summarize space exploration and the understandings gained from them.
18 - Multiple Choice NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
19 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
20 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
21 - Multiple Choice NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
22 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
23 - Multiple Choice NCES.6.E.1.1	Explain how the relative motion and relative position of the sun, Earth and moon affect the seasons, tides, phases of the moon, and eclipses.
24 - Multiple Choice NCES.6.E.1.2	Explain why Earth sustains life while other planets do not based on their properties (including types of surface, atmosphere and gravitational force) and location to the Sun.
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