

Science

Annual Measurable Objectives (AMO)

Test Strand Descriptive Statistics

Task Descriptive Statistics

Task Item Descriptive Statistics

Reliability

Science Descriptive Statistics**Grade 4 AMO 1-4**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	20	7.8	20.0	20.0
	2	11	4.3	11.0	31.0
	3	51	19.8	51.0	82.0
	4	18	7.0	18.0	100.0
	Total	100	38.8	100.0	
Missing	System	158	61.2		
Total		258	100.0		

Grade 4 AMO A-B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	31	12.0	31.0	31.0
	1	69	26.7	69.0	100.0
	Total	100	38.8	100.0	
Missing	System	158	61.2		
Total		258	100.0		

Grade 8 AMO 1-4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	11	4.3	14.3	14.3
	2	13	5.0	16.9	31.2
	3	39	15.1	50.6	81.8
	4	14	5.4	18.2	100.0
	Total	77	29.8	100.0	
Missing	System	181	70.2		
Total		258	100.0		

Grade 8 AMO A-B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	24	9.3	31.2	31.2
	1	53	20.5	68.8	100.0
	Total	77	29.8	100.0	
Missing	System	181	70.2		
Total		258	100.0		

Grade 10 AMO 1-4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	16	6.2	19.8	19.8
	2	15	5.8	18.5	38.3
	3	45	17.4	55.6	93.8
	4	5	1.9	6.2	100.0
	Total	81	31.4	100.0	
Missing	System	177	68.6		
Total		258	100.0		

Grade 10 AMO A-B

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	31	12.0	38.3	38.3
	1	50	19.4	61.7	100.0
	Total	81	31.4	100.0	
Missing	System	177	68.6		
Total		258	100.0		

Descriptive Statistics

	N	Min	Max	Mean	SD
Science Raw Total 4	100	0	48	28.14	15.211
Science Raw Total 8	77	0	48	32.16	13.353
Science Raw Total 10	81	0	48	26.22	13.900
Science Scale Total 4	100	0	48	28.14	15.211
Science Scale Total 8	77	0	48	32.16	13.353
Science Scale Total 10	81	0	48	26.22	13.900
Valid N (listwise)	0				

Descriptive Statistics

	N	Min	Max	Mean	SD
Physical Science Scale Total 4	100	.00	12.00	6.9600	4.24959
Life Science Scale Total 4	100	.00	12.00	7.3400	4.16871
Earth Science Scale Total 4	100	.00	12.00	7.3800	3.96648
Technology Scale Total 4	96	.00	12.00	6.7292	3.95895
Physical Science Scale Total 8	77	.00	12.00	7.3247	3.54832
Life Science Scale Total 8	77	.00	12.00	7.8961	3.86477
Earth Science Scale Total 8	77	.00	12.00	8.3896	3.67121
Technology Scale Total 8	75	.00	12.00	8.7733	3.47801
Physical Science Scale Total 10	81	.00	12.00	5.9012	3.91026
Life Science Scale Total 10	81	.00	12.00	6.7160	3.83808
Earth Science Scale Total 10	81	.00	12.00	6.1975	3.80270
Technology Scale Total 10	76	.00	12.00	7.8947	3.89043
Valid N (listwise)	0				

**Science Descriptive Statistics
Grade 4 Task Descriptives**

Descriptive Statistics					
	N	Min	Max	Mean	SD
Concepts of Physical Science	100	.00	12.00	6.9600	4.24959
Concepts of Life Science	100	.00	12.00	7.3400	4.16871
Concepts of Earth Science	100	.00	12.00	7.3800	3.96648
History and Nature of Science, Science and Technology	96	.00	12.00	6.7292	3.95895
Valid N (listwise)	96				

**Science Descriptive Statistics
Grade 8 Task Descriptives**

Descriptive Statistics					
	N	Min	Max	Mean	SD
Concepts of Physical Science	77	.00	12.00	7.3247	3.54832
Concepts of Life Science	77	.00	12.00	7.8961	3.86477
Concepts of Earth Science	77	.00	12.00	8.3896	3.67121
Science and Technology	75	.00	12.00	8.7733	3.47801
Valid N (listwise)	75				

**Science Descriptive Statistics
Grade 10 Task Descriptives**

Descriptive Statistics					
	N	Min	Max	Mean	SD
Concepts of Physical Science	81	.00	12.00	5.9012	3.91026
Concepts of Life Science	81	.00	12.00	6.7160	3.83808
Concepts of Earth Science	81	.00	12.00	6.1975	3.80270
Science and Technology	76	.00	12.00	7.8947	3.89043
Valid N (listwise)	76				

Science Descriptive Statistics
Grade 4 Task Item Descriptives

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_4_ Task_1.4_Item_1	100	0	2	1.44	.903
Science_Grade_4_ Task_1.4_Item_2	100	0	2	1.22	.980
Science_Grade_4_ Task_1.4_Item_3	100	0	2	1.30	.959
Science_Grade_4_ Task_1.4_Item_4	92	0	2	.93	1.003
Science_Grade_4_ Task_1.4_Item_5	91	0	2	1.43	.909
Science_Grade_4_ Task_1.4_Item_6	89	0	2	.94	1.004
Valid N (listwise)	89				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_4_ Task_2.4_Item_1	100	0	2	1.40	.921
Science_Grade_4_ Task_2.4_Item_2	100	0	2	1.28	.965
Science_Grade_4_ Task_2.4_Item_3	100	0	2	1.56	.833
Science_Grade_4_ Task_2.4_Item_4	92	0	2	1.30	.958
Science_Grade_4_ Task_2.4_Item_5	91	0	2	.97	1.005
Science_Grade_4_ Task_2.4_Item_6	90	0	2	1.13	.997
Valid N (listwise)	90				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_4_ Task_3.4__ Item_1	100	0	2	1.26	.970
Science_Grade_4_ Task_3.4_ Item_2	100	0	2	1.56	.833
Science_Grade_4_ Task_3.4_ Item_3	100	0	2	1.38	.930
Science_Grade_4_ Task_3.4_ Item_4	94	0	2	1.11	1.000
Science_Grade_4_ Task_3.4_ Item_5	93	0	2	.80	.984
Science_Grade_4_ Task_3.4_ Item_6	90	0	2	1.56	.836
Valid N (listwise)	90				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_4_ Task_4.4_ Item_1	96	0	2	1.27	.968
Science_Grade_4_ Task_4.4_ Item_2	96	0	2	1.17	.991
Science_Grade_4_ Task_4.4_ Item_3	96	0	2	1.04	1.004
Science_Grade_4_ Task_4.4_ Item_4	91	0	2	1.54	.847
Science_Grade_4_ Task_4.4_ Item_5	90	0	2	.71	.963
Science_Grade_4_ Task_4.4_ Item_6	90	0	2	1.20	.985
Valid N (listwise)	90				

Science Descriptive Statistics
Grade 8 Task Item Descriptives

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_8_ Task_1.8_Item_1	77	0	2	1.01	1.006
Science_Grade_8_ Task_1.8_Item_2	77	0	2	1.64	.776
Science_Grade_8_ Task_1.8_Item_3	77	0	2	.96	1.006
Science_Grade_8_ Task_1.8_Item_4	73	0	2	1.42	.912
Science_Grade_8_ Task_1.8_Item_5	73	0	2	.90	1.002
Science_Grade_8_ Task_1.8_Item_6	73	0	2	1.59	.814
Valid N (listwise)	73				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_8_ Task_2.8_Item_1	77	0	2	1.53	.852
Science_Grade_8_ Task_2.8_Item_2	77	0	2	1.30	.961
Science_Grade_8_ Task_2.8_Item_3	77	0	2	1.17	.992
Science_Grade_8_ Task_2.8_Item_4	72	0	2	1.11	1.001
Science_Grade_8_ Task_2.8_Item_5	70	0	2	1.63	.783
Science_Grade_8_ Task_2.8_Item_6	69	0	2	1.54	.850
Valid N (listwise)	69				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_8_ Task_3.8_Item_1	77	0	2	1.35	.943
Science_Grade_8_ Task_3.8_Item_2	77	0	2	1.58	.817
Science_Grade_8_ Task_3.8_Item_3	77	0	2	1.45	.897
Science_Grade_8_ Task_3.8_Item_4	71	0	2	1.30	.962
Science_Grade_8_ Task_3.8_Item_5	71	0	2	1.18	.990
Science_Grade_8_ Task_3.8_Item_6	71	0	2	1.86	.515
Valid N (listwise)	71				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_8_ Task_4.8_Item_1	75	0	2	1.84	.546
Science_Grade_8_ Task_4.8_Item_2	75	0	2	.99	1.007
Science_Grade_8_ Task_4.8_Item_3	75	0	2	1.44	.904
Science_Grade_8_ Task_4.8_Item_4	72	0	2	1.61	.797
Science_Grade_8_ Task_4.8_Item_5	69	0	2	1.57	.831
Science_Grade_8_ Task_4.8_Item_6	69	0	2	1.65	.764
Valid N (listwise)	69				

Science Descriptive Statistics
Grade 10 Task Item Descriptives

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_10_ Task_1.10_Item_1	81	0	2	1.11	1.000
Science_Grade_10_ Task_1.10_Item_2	81	0	2	.89	1.000
Science_Grade_10_ Task_1.10_Item_3	81	0	2	1.23	.978
Science_Grade_10_ Task_1.10_Item_4	71	0	2	.99	1.007
Science_Grade_10_ Task_1.10_Item_5	71	0	2	1.15	.995
Science_Grade_10_ Task_1.10_Item_6	71	0	2	.90	1.002
Valid N (listwise)	71				

Descriptive Statistics					
	N	Min	Max	Mean	SD
Science_Grade_10_ Task_2.10_Item_1	81	0	2	1.38	.930
Science_Grade_10_ Task_2.10_Item_2	81	0	2	1.26	.972
Science_Grade_10_ Task_2.10_Item_3	81	0	2	.86	.997
Science_Grade_10_ Task_2.10_Item_4	72	0	2	1.58	.818
Science_Grade_10_ Task_2.10_Item_5	70	0	2	1.09	1.004
Science_Grade_10_ Task_2.10_Item_6	69	0	2	1.01	1.007
Valid N (listwise)	69				

Descriptive Statistics

	N	Min	Max	Mean	SD
Science_Grade_10_ Task_3.10_Item_1	81	0	2	1.23	.978
Science_Grade_10_ Task_3.10_Item_2	81	0	2	1.09	1.002
Science_Grade_10_ Task_3.10_Item_3	81	0	2	1.21	.984
Science_Grade_10_ Task_3.10_Item_4	72	0	2	1.17	.993
Science_Grade_10_ Task_3.10_Item_5	71	0	2	1.38	.931
Science_Grade_10_ Task_3.10_Item_6	71	0	2	.48	.860
Valid N (listwise)	71				

Descriptive Statistics

	N	Min	Max	Mean	SD
Science_Grade_10_ Task_4.10_Item_1	76	0	2	1.29	.964
Science_Grade_10_ Task_4.10_Item_2	76	0	2	1.00	1.007
Science_Grade_10_ Task_4.10_Item_3	76	0	2	1.29	.964
Science_Grade_10_ Task_4.10_Item_4	71	0	2	1.41	.919
Science_Grade_10_ Task_4.10_Item_5	70	0	2	1.63	.783
Science_Grade_10_ Task_4.10_Item_6	70	0	2	1.63	.783
Valid N (listwise)	70				

Science Task/Strand Reliability Analysis: Grade 4

Note - only tasks with at least 4 items are included

Scale: Task/Strand 1: Physical**Case Processing Summary**

		N	%
Cases	Valid	89	34.5
	Excluded ^a	169	65.5
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.770	.775	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.75	14.438	3.800	6

Inter-Item Correlation Matrix

	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_1	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_2	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_3	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_4	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_5	Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_6
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_1	1.000	.351	.387	.319	.513	.364
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_2	.351	1.000	.370	.356	.317	.388
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_3	.387	.370	1.000	.385	.487	.372
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_4	.319	.356	.385	1.000	.284	.302
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_5	.513	.317	.487	.284	1.000	.270
Science_Grade_4_Task_1.4_Concepts_of_Physical_Science_Item_6	.364	.388	.372	.302	.270	1.000

Scale: Task/Strand 2: Life**Case Processing Summary**

		N	%
Cases	Valid	90	34.9
	Excluded ^a	168	65.1
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.749	.763	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.11	13.156	3.627	6

Inter-Item Correlation Matrix

	Science_Grade_4 _Task_2.4_Conce pts_of_Life_Scie nce_Item_1	Science_Grade_4_Ta sk_2.4_Concepts_of _Life_Science_Item_ 2	Science_Grade_4_Ta sk_2.4_Concepts_of _Life_Science_Item_ 3	Science_Grade_4_Ta sk_2.4_Concepts_of _Life_Science_Item_ 4	Science_Grade_4_Ta sk_2.4_Concepts_of _Life_Science_Item_ 5	Science_Grade_4_Ta sk_2.4_Concepts_of _Life_Science_Item_ 6
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_1	1.000	.441	.634	.279	.382	.260
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_2	.441	1.000	.456	.566	.446	.113
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_3	.634	.456	1.000	.347	.384	.251
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_4	.279	.566	.347	1.000	.456	.095
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_5	.382	.446	.384	.456	1.000	.138
Science_Grade_4_Ta sk_2.4_Concepts_of_ Life_Science_Item_6	.260	.113	.251	.095	.138	1.000

Scale: Task/Strand 3: Earth**Case Processing Summary**

		N	%
Cases	Valid	90	34.9
	Excluded ^a	168	65.1
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.714	.727	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.11	11.898	3.449	6

Inter-Item Correlation Matrix

	Science_Grade_4 _Task_3.4_Conce pts_of_Earth_Sci nce_Item_1	Science_Grade_4_T ask_3.4_Concepts_ of_Earth_Science_I tem_2	Science_Grade_4_Ta sk_3.4_Concepts_of_ Earth_Science_Item_ 3	Science_Grade_4_Ta sk_3.4_Concepts_of_ Earth_Science_Item_ 4	Science_Grade_4_Ta sk_3.4_Concepts_of_ Earth_Science_Item_ 5	Science_Grade_4_Ta sk_3.4_Concepts_of_ Earth_Science_Item_ 6
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_1	1.000	.343	.424	.300	.171	.334
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_2	.343	1.000	.388	.161	.192	.550
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_3	.424	.388	1.000	.326	.247	.400
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_4	.300	.161	.326	1.000	.074	.355
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_5	.171	.192	.247	.074	1.000	.338
Science_Grade_4_Tas k_3.4_Concepts_of_Ea rth_Science_Item_6	.334	.550	.400	.355	.338	1.000

Scale: Task/Strand 4: Technology**Case Processing Summary**

		N	%
Cases	Valid	90	34.9
	Excluded ^a	168	65.1
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.725	.728	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.16	13.751	3.708	6

Inter-Item Correlation Matrix

	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_1	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_2	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_3	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_4	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_5	Science_Grade_4_ Task_4.4_History_ _and_Nature_of_S cience,_Science_a nd_Technology_It em_6
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_1	1.000	.275	.316	.359	.230	.433
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_2	.275	1.000	.410	.521	.196	.253
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_3	.316	.410	1.000	.382	.197	.411
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_4	.359	.521	.382	1.000	.118	.436
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_5	.230	.196	.197	.118	1.000	.085
Science_Grade_4_Task_4.4_His tory_and_Nature_of_Science,_S cience_and_Technology_Item_6	.433	.253	.411	.436	.085	1.000

Science Task Reliability Analysis: Grade 8
 Note - only tasks with at least 4 items are included

Scale: Task/Strand 1: Physical

Case Processing Summary

		N	%
Cases	Valid	73	28.3
	Excluded ^a	185	71.7
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.609	.635	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.73	10.146	3.185	6

Inter-Item Correlation Matrix

	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_1	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_2	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_3	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_4	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_5	Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_6
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_1	1.000	.347	.068	.317	.076	.205
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_2	.347	1.000	.085	.363	.362	.488
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_3	.068	.085	1.000	.039	.180	.176
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_4	.317	.363	.039	1.000	.212	.126
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_5	.076	.362	.180	.212	1.000	.326
Science_Grade_8_Task_1.8_Concepts_of_Physical_Science_Item_6	.205	.488	.176	.126	.326	1.000

Scale: Task/Strand 2: Life**Case Processing Summary**

		N	%
Cases	Valid	69	26.7
	Excluded ^a	189	73.3
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.651	.648	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.70	10.215	3.196	6

Inter-Item Correlation Matrix

	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_1	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_2	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_3	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_4	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_5	Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_6
	_1	_2	_3	_4	_5	_6
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_1	1.000	.019	.193	.190	.268	.174
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_2	.019	1.000	.137	.168	.128	-.048
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_3	.193	.137	1.000	.426	.387	.536
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_4	.190	.168	.426	1.000	.306	.437
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_5	.268	.128	.387	.306	1.000	.201
Science_Grade_8_Task_2.8_Concepts_of_Life_Science_Item_6	.174	-.048	.536	.437	.201	1.000

Scale: Task/Strand 3: Earth**Case Processing Summary**

		N	%
Cases	Valid	71	27.5
	Excluded ^a	187	72.5
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.587	.629	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.10	8.090	2.844	6

Inter-Item Correlation Matrix

	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _1	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _2	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _3	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _4	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _5	Science_Grade_8_Ta sk_3.8_Concepts_of _Earth_Science_Item _6
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_1	1.000	.487	.155	.154	.015	.331
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_2	.487	1.000	.088	.380	.240	.680
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_3	.155	.088	1.000	-.020	.131	.127
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_4	.154	.380	-.020	1.000	.287	.143
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_5	.015	.240	.131	.287	1.000	.107
Science_Grade_8 _Task_3.8_Conce pts_of_Earth_Scie nce_Item_6	.331	.680	.127	.143	.107	1.000

Scale: Task/Strand 4: Technology**Case Processing Summary**

		N	%
Cases	Valid	69	26.7
	Excluded ^a	189	73.3
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.592	.642	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
9.45	7.280	2.698	6

Inter-Item Correlation Matrix

	Science_Grade_8_Task_4.8_Science_and_Technology_Item_1	Science_Grade_8_Task_4.8_Science_and_Technology_Item_2	Science_Grade_8_Task_4.8_Science_and_Technology_Item_3	Science_Grade_8_Task_4.8_Science_and_Technology_Item_4	Science_Grade_8_Task_4.8_Science_and_Technology_Item_5	Science_Grade_8_Task_4.8_Science_and_Technology_Item_6
Science_Grade_8_Task_4.8_Science_and_Technology_Item_1	1.000	.087	.405	.101	.232	.465
Science_Grade_8_Task_4.8_Science_and_Technology_Item_2	.087	1.000	-.138	-.087	.144	.110
Science_Grade_8_Task_4.8_Science_and_Technology_Item_3	.405	-.138	1.000	.634	.404	.407
Science_Grade_8_Task_4.8_Science_and_Technology_Item_4	.101	-.087	.634	1.000	.058	.218
Science_Grade_8_Task_4.8_Science_and_Technology_Item_5	.232	.144	.404	.058	1.000	.407
Science_Grade_8_Task_4.8_Science_and_Technology_Item_6	.465	.110	.407	.218	.407	1.000

Science Task Reliability Analysis: Grade 10
Note - only tasks with at least 4 items are included

Scale: Task/Strand 1: Physical

Case Processing Summary			
		N	%
Cases	Valid	71	27.5
	Excluded ^a	187	72.5
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items	
.609	.610	6	

Scale Statistics				
Mean	Variance	Std. Deviation	N of Items	
6.73	11.799	3.435	6	

Inter-Item Correlation Matrix

	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_1	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_2	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_3	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_4	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_5	Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_6
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_1	1.000	.069	.148	.223	.238	.277
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_2	.069	1.000	.287	.183	.069	-.013
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_3	.148	.287	1.000	.083	.383	.215
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_4	.223	.183	.083	1.000	.273	.352
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_5	.238	.069	.383	.273	1.000	.316
Science_Grade_10_Task_1.10_Concepts_of_Physical_Science_Item_6	.277	-.013	.215	.352	.316	1.000

Reliability**Scale: Task/Strand 2: Life**

Case Processing Summary			
		N	%
Cases	Valid	69	26.7
	Excluded ^a	189	73.3
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics			
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items		N of Items
.548	.552		6

Scale Statistics				
Mean	Variance	Std. Deviation	N of Items	
7.77	9.475	3.078	6	

Inter-Item Correlation Matrix

	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_1	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_2	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_3	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_4	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_5	Science_Grade_10_ Task_2.10_Concepts _of_Life_Science_It em_6
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_1	1.000	.276	.145	.201	.125	.077
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_2	.276	1.000	.301	.145	.226	.106
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_3	.145	.301	1.000	.083	.101	.246
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_4	.201	.145	.083	1.000	.201	.160
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_5	.125	.226	.101	.201	1.000	.159
Science_Grade_10_Task_2.10_Concepts_of_Life_Science_Item_6	.077	.106	.246	.160	.159	1.000

Scale: Task/Strand 3: Earth**Case Processing Summary**

		N	%
Cases	Valid	71	27.5
	Excluded ^a	187	72.5
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.603	.598	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
7.04	10.612	3.258	6

Inter-Item Correlation Matrix

	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_1	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_2	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_3	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_4	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_5	Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_6
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_1	1.000	.291	.276	.311	.078	.233
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_2	.291	1.000	.165	.175	.228	.168
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_3	.276	.165	1.000	.373	.276	.019
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_4	.311	.175	.373	1.000	.311	.131
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_5	.078	.228	.276	.311	1.000	-.052
Science_Grade_10_Task_3.10_Concepts_of_Earth_Science_Item_6	.233	.168	.019	.131	-.052	1.000

Scale: Task/Strand 4: Technology**Case Processing Summary**

		N	%
Cases	Valid	70	27.1
	Excluded ^a	188	72.9
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.678	.674	6

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
8.54	11.005	3.317	6

Inter-Item Correlation Matrix

Science_Grade_10_Task_4.10_Science_and_Technology_Item_1	1	Science_Grade_10_Task_4.10_Science_and_Technology_Item_2	m_2	Science_Grade_10_Task_4.10_Science_and_Technology_Item_3	m_3	Science_Grade_10_Task_4.10_Science_and_Technology_Item_4	m_4	Science_Grade_10_Task_4.10_Science_and_Technology_Item_5	m_5	Science_Grade_10_Task_4.10_Science_and_Technology_Item_6	m_6
Science_Grade_10_Task_4.10_Science_and_Technology_Item_1	1.000	.244	.228	.662	.151	.310					
Science_Grade_10_Task_4.10_Science_and_Technology_Item_2	.244	1.000	.338	.308	.078	.299					
Science_Grade_10_Task_4.10_Science_and_Technology_Item_3	.228	.338	1.000	.207	.168	.249					
Science_Grade_10_Task_4.10_Science_and_Technology_Item_4	.662	.308	.207	1.000	.105	.349					
Science_Grade_10_Task_4.10_Science_and_Technology_Item_5	.151	.078	.168	.105	1.000	.150					
Science_Grade_10_Task_4.10_Science_and_Technology_Item_6	.310	.299	.249	.349	.150	1.000					

Scale: Total Test: Grade 4**Case Processing Summary**

		N	%
Cases	Valid	85	32.9
	Excluded ^a	173	67.1
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha Based on Standardized			
Cronbach's Alpha	Items	N of Items	
.921	.925	24	

Scale Statistics

Mean	Variance	SD	N of Items
31.84	168.973	12.999	24

Scale: Total Test: Grade 8**Case Processing Summary**

		N	%
Cases	Valid	67	26.0
	Excluded ^a	191	74.0
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha Based on Standardized		
Cronbach's Alpha	Items	N of Items
.848	.865	24

Scale Statistics

Mean	Variance	Std. Deviation	N of Items
35.88	88.228	9.393	24

Scale: Total Test: Grade 10**Case Processing Summary**

		N	%
Cases	Valid	66	25.6
	Excluded ^a	192	74.4
	Total	258	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.845	.848	24