Assessment #4 – Life Science and Inquiry

Offeror Name: GlobalScholar, Inc.
Proposed Assessment Name: Performance Series
Content Area(s) and Grade Level(s) Assessed: Life Science and Inquiry (Grades 2-8)

Alignment

Provide evidence of alignment to the current Standards of Learning including a comparative chart of content standards developed by your company to VA content standards for each content area/grade level that your proposed assessment(s) addresses and numbers of items for each standard. If you are planning to develop assessments in response to the contract being awarded, provide the content standards that you will include in your assessment(s) and the number of items you will develop for each standard with a timeline.

Virginia Life Science and Inquiry Curriculum Alignment

The Virginia Standards of Learning for Life Science and Inquiry (2010) were used to develop the curriculum alignment guide for Virginia. Second through sixth grade and middle/high school course level objectives were used to determine matches for the curriculum alignment guide. The referencing of the skills in the curriculum alignment guide follows closely with the organization of the document. In a reference of 3.1.b—3 indicates the grade level, 1 indicates the strand, and b indicates the standard. The SIP scores for the Virginia Curriculum Alignment Guide were determined using the national item pool.

The alignment process is very rigorous. The initial alignments are made by a content area specialist. The alignments are then reviewed by at least one other content area specialist. Please refer to Appendix 3 to view the VA Standards of Learning Report for Life Science and Inquiry.

Student Growth:

Provide the rationale for the measure of student growth methodology included in Requirement 3.2.

Performance Series is an internet-delivered, standards-based assessment that uses an innovative computer-adaptive model to help target the instructional level of each student and provide valid and reliable diagnostic assessment data. Performance Series computer-adaptive testing is based on Item Response Theory (IRT) scoring. Given the vertical scaling of the CATs, growth can be determined as multiple test administration yield scores on a common scale. Thus changes in scale scores provide

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estimates of student improvement or growth in the underlying subject area knowledge over time, which may be within a given year or across years.

As part of the development process Performance Series items undergo both qualitative and quantitative evaluation, approved test items are then placed on a vertical difficulty scale to provide insight to a student's ability level within a subject. This scale is used across grades and enables educators to view growth over time. The growth or gain is calculated as the difference between Scaled Scores at two separate administrations (whether at the aggregate Mean Scaled Score level or individual student level). For each gain reported, a standard error for the gain is also calculated and displayed. GlobalScholar indicates those gains that are not significantly different from zero at the 67% confidence level (plus or minus one standard error of the gain). This vertical scale and gains reporting ability combined with the previous national norm research study enables educators to evaluate student growth against observed mean growth for the student's grade, quartile or decile. Please see ***Chapter 5 Norming Procedure*** of the Performance Series Technical Report provided in Appendix E for additional information.

GlobalScholar's Research team would assist the VA DOE in determining the measurement of required growth on the proposed assessment to reach proficient on the statewide assessments (the Standards of Learning tests) in a specified amount of time. A detailed research plan would be developed to: 1) determine the relationship between Performance Series and the VA SOL tests and 2) establish criterion-based growth targets.

Also provide the procedures used to validate the measures of growth including statistical processes.

Student growth can be evaluated in different ways through the reports provided. The statistical evaluation is provided in the Gains Report through a comparison to the Standard Error of the Difference. Gain scores inside this standard error are marked with an asterisk, to note that the two scores are not statistically different. Gain scores without an asterisk can be considered valid, statistically different scores. Additionally, comparisons against the GlobalScholar norm group (observed mean gains) can be made through the Gains Analysis Report. A district can select the type of data breakdown for this report to provide an average gain target in line with each grade level, quartiles per grade, or deciles per grade.

Creation and Composition of Norm Groups

In response to customer requests for a means to compare their students' results on Performance Series with those results of other students across the country, GlobalScholar developed norms for fall, winter, and spring administrations of Performance Series. The created norms are "user" norms, where the norm groups for fall, winter and spring were samples from the database of all examinee results during Fall 2005 through Spring 2006. An updated study is currently underway, using national data from the 2011-2012 school year, and will be available in 2013.

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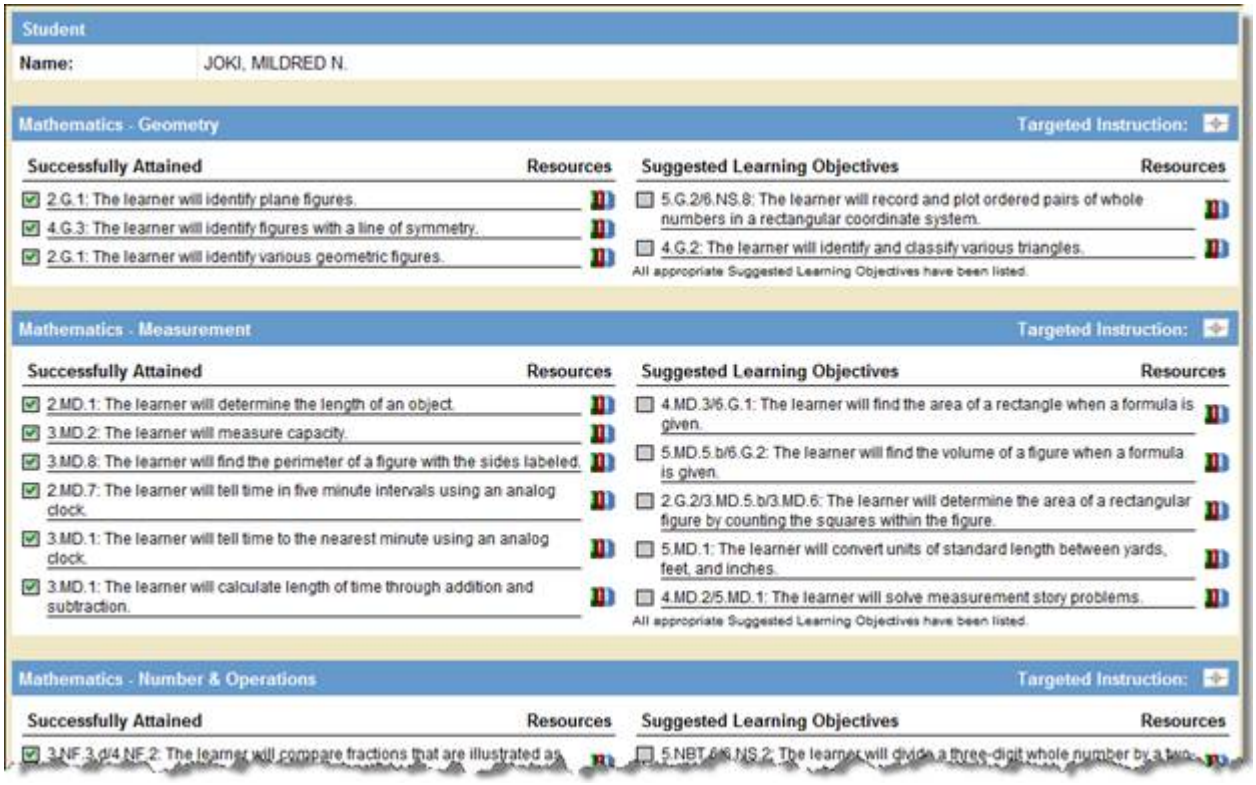
Within the areas of Mathematics and Reading, norm groups were created for students in grades 2 through 10. For the areas of Language Arts and Science, the norm groups were created for students in grades 2 through 8. Fall and Spring groups were created dependently with all examinees being members of both groups. The Winter group was created independently; however, the possibility exists that some examinees may also be members of Fall and/or Spring groups.

Criteria used for creation of these initial norm groups were gender, ethnicity, and geographic region. In the case of ethnicity and gender, target proportions were set to match national population levels. Ethnicity, gender, and geographic region were selected to provide the largest possible group from which to sample in order to create each group. At this time, norms exist within the areas of Mathematics, Life Science, Reading and Language Arts. Please see ***Chapter 5 Norming Procedure*** of the Performance Series Technical Report provided in Appendix F for additional information.



Student

Name: JOKI, MILDRED N.

Mathematics - Geometry — Targeted Instruction:

Successfully Attained	Resources	Suggested Learning Objectives	Resources
☑ 2.G.1: The learner will identify plane figures.		☐ 5.G.2/6.NS.8: The learner will record and plot ordered pairs of whole numbers in a rectangular coordinate system.	
☑ 4.G.3: The learner will identify figures with a line of symmetry.		☐ 4.G.2: The learner will identify and classify various triangles.	
☑ 2.G.1: The learner will identify various geometric figures.			

All appropriate Suggested Learning Objectives have been listed.

Mathematics - Measurement — Targeted Instruction:

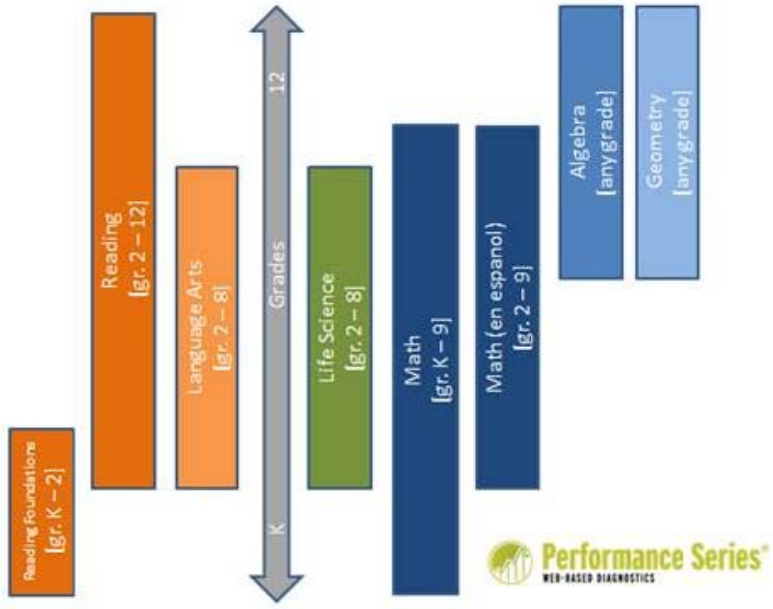
Successfully Attained	Resources	Suggested Learning Objectives	Resources
☑ 2.MD.1: The learner will determine the length of an object.		☐ 4.MD.3/6.G.1: The learner will find the area of a rectangle when a formula is given.	
☑ 3.MD.2: The learner will measure capacity.		☐ 5.MD.5.b/6.G.2: The learner will find the volume of a figure when a formula is given.	
☑ 3.MD.8: The learner will find the perimeter of a figure with the sides labeled.		☐ 2.G.2/3.MD.5.b/3.MD.6: The learner will determine the area of a rectangular figure by counting the squares within the figure.	
☑ 2.MD.7: The learner will tell time in five minute intervals using an analog clock.		☐ 5.MD.1: The learner will convert units of standard length between yards, feet, and inches.	
☑ 3.MD.1: The learner will tell time to the nearest minute using an analog clock.		☐ 4.MD.2/5.MD.1: The learner will solve measurement story problems.	
☑ 3.MD.1: The learner will calculate length of time through addition and subtraction.			

All appropriate Suggested Learning Objectives have been listed.

Mathematics - Number & Operations — Targeted Instruction:

Successfully Attained	Resources	Suggested Learning Objectives	Resources
☑ 3.NF.3.d/4.NF.2: The learner will compare fractions that are illustrated as		☐ 5.NBT.6/6.NS.2: The learner will divide a three-digit whole number by a two-	

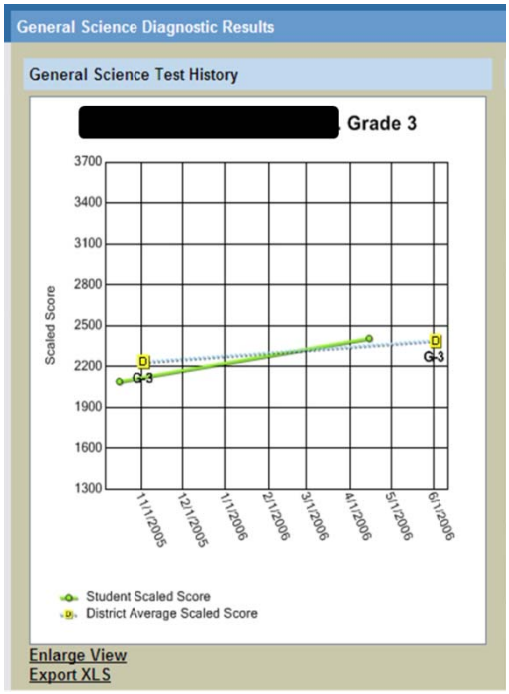
The Performance Series Suggested Learning Objectives (SLOs) for each Curriculum Alignment are shown in the report information in Appendix 4 and in the screen shot above. Given a student's Scaled Score, teachers can identify the collection of skills that fall within the corresponding Scaled Score range.



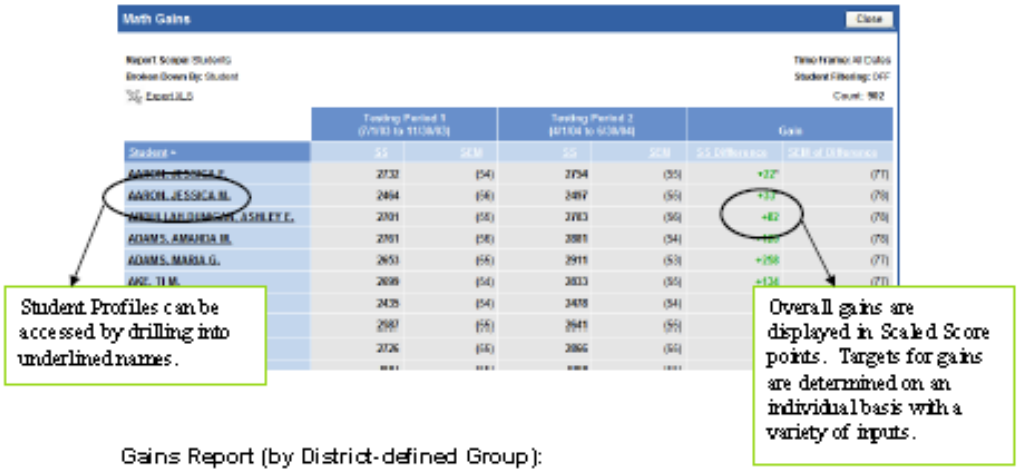
Reporting:

Provide your best example of a report derived from the assessment's results which illustrates an individual student's growth (not performance).

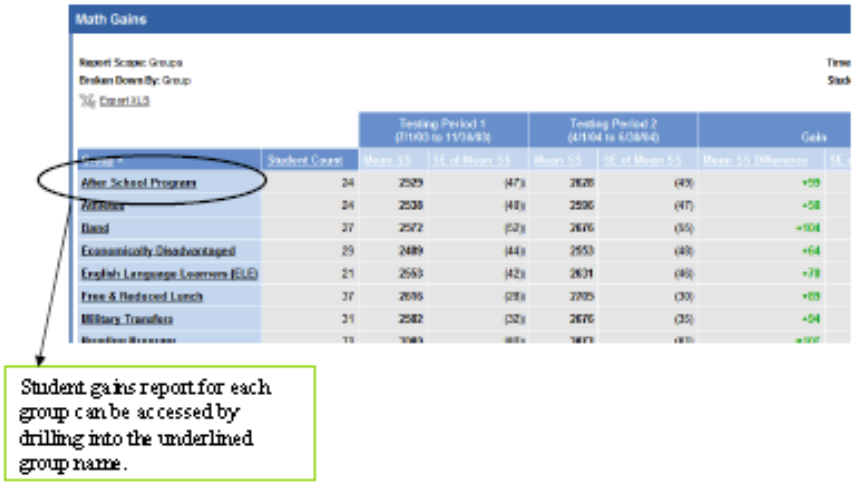
General Science Trend chart displays growth across years; one piece of each 'Student Profile' report.



Gains Report (by Student):
The Gains Report displays growth over time and is available by individual student, class, or group. This report helps districts, schools, and teachers to measure gains on a consistent scale, thereby informing instruction and guiding progress towards accountability standards.



Gains Report (by District-defined Group):



Technology:

For online testing, can portable devices (tablets, iPads, netbooks) be used with the same fidelity as CPUs/laptops?

Student online testing is supported via browser access in iPads, and is currently being tested in Chromebooks. All audio, text, and graphics display with the same fidelity as a standard desktop computer. Due to screen size, there is added scrolling on the smaller screens.

Can reports be accessed with fidelity from portable devices 24 hours a day, 7 days a week?

Student testing is supported on portable devices. Administrative functions are not.

Expand on the technology information provided in Requirement 4.x to include specific requirements about technology infrastructure related to bandwidth, caching capabilities, numbers of concurrent testers, redundancy of data storage as well as fail-safe protocols during testing windows.

Technology information is broken down into 2 groups for administrative tasks and student testing. Each has a different interface and system requirements. The specifics for both are listed below. Testing on newer browsers continues based on the versions available during the product update / release cycle. In general, please enable cookies and popup windows for testing and messages. Early grade testing requires additional bandwidth to ensure the best performance of the initial tutorial and streaming audio support.

Since Performance Series is available for students throughout the year, GlobalScholar safeguards student data and system access on a consistent basis. All our customers determine their own testing windows; they are not dictated by GlobalScholar. All of the student and score information are housed in a security computer facility that has the following attributes:

- Regular Backups
- Tier 4 facility
- Unmarked building
- Guards
- Redundant power
- Environment controls
- Biometric security with card keys access
- Special security access tubes
- Security cameras every 5-12 feet
- Internal security audits
- Multiple firewall layers and brands

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System Requirements

ADMIN SITE - STAFF Access

Windows	Pentium III 500 Mhz +	
Mac	500 Mhz +, G3, G4, or G5	
Java Plug-in	1.4 to 1.6	*For staff members who use the Item Editor (Not needed for student computers)*
Adobe Flash Player	8 to 10	
Adobe Reader	6 to 9	*For staff members who use built-in PDFs (Not needed for student computers)*
Internet Connection	• Full T1 or better Internet connection (1.5 Mbs/sec or higher) • Ports 80 and 443 open for access to the Internet • All software associated with this product requires an Internet connection	

Compatible	The listed Operating System and/or Browser has been tested and certified for use with our products.
Provisional	The listed Operating System and/or Browser has been tested with some areas of the products failing to meet compatibility standards.
Not Tested	The degree of success or failure using our products with the listed Operating System and/or Browser is unknown. Using "Certified" combinations is recommended.
N/A	The Operating System and/or Browser interaction is not compatible or recommended by the manufacturers and therefore not supported by Scantron.

Microsoft® Internet Explorer® Web Browsers

	Windows XP	Windows Vista	Windows 7
Internet Explorer 7	Compatible	Compatible	N/A
Internet Explorer 8	Compatible	Compatible	Compatible
Internet Explorer 9	N/A	Not Tested	Compatible

Mozilla® Firefox Web Browser

	Windows XP	Windows Vista	Windows 7	Mac 10.5	Mac 10.6	Mac 10.7
Firefox 3.0	Compatible	Not Tested	Compatible	Provisional	Compatible	N/A
Fifefox 4	Compatible	Not Tested	Not Tested	Not Tested	Compatible	N/A
Firefox 5	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested	Not Tested
Firefox 10	Provisional	Not Tested	Provisional	Not Tested	Provisional	Provisional
Firefox 13	Provisional	Not Tested	Provisional	Not Tested	Compatible	Compatible

Apple® Safari ® Web Browsers

	Mac 10.4	Mac 10.5	Mac 10.6	Mac 10.7
Safari 3	Compatible	Compatible	N/A	N/A
Safari 4	Compatible	Compatible	Compatible	N/A
Safari 5	N/A	Compatible	Compatible	Compatible

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System Requirements

STUDENT TESTING

Windows	Pentium III 500 Mhz +
Mac	500 Mhz +, G3, G4, or G5
Internet Connection	• Acheivement Series (1.5 Mbs/sec or higher) • Performance Series (10Mbs/sec or higher) - for 20 concurrent testers with Audio (grades K-2) • Ports 80 and 443 open for access to the Internet • All software associated with this product requires an Internet connection
Audio	Headphones or speakers required for Performance Series Reading Foundations tests in grade K-2, and for Math in grade K-5.

Compatible	The listed Operating System and/or Browser has been tested and certified for use with our products.
Provisional	The listed Operating System and/or Browser has been tested with some areas of the products failing to meet compatibility standards.
Not Tested	The degree of success or failure using our products with the listed Operating System and/or Browser is unknown. Use "Compatible" combinations.
N/A	The Operating System and/or Browser interaction is not compatible or recommended by the manufacturers and therefore not supported by Scantron.

Microsoft® Internet Explorer® Web Browsers

	Windows XP	Windows 7
Internet Explorer 7	Compatible	Provisional
Internet Explorer 8	Compatible	Compatible
Internet Explorer 9	N/A	Compatible

Mozilla® Firefox Web Browser

	Windows XP	Windows 7	Mac 10.5	Mac 10.6	Mac 10.7	
Firefox 5	Provisional	Compatible	Not Tested	Not Tested	Compatible	***NOTE*: needs Quicktime plugin, not WMP**
Firefox 10	Compatible	Compatible	Not Tested	Provisional	Provisional	
Firefox 13	Compatible	Compatible	Not Tested	Compatible	Compatible	

Apple® Safari ® Web Browsers

	Mac 10.5	Mac 10.6	Mac 10.7
Safari 4	Not Tested	Provisional	Provisional
Safari 5	Not Tested	Compatible	Compatible

Apple® iPad & Browser

Achievement Series	Compatible	Student Online Testing
Performance Series	Compatible	Student Online Testing (new UI activated after August 2012)

Google® Chrome ® Web Browsers

	Windows XP	Windows 7	Mac 10.6	Mac 10.7
Chrome 19 and higher	Provisional	Provisional	Provisional	Provisional

During online testing, will remote, "live-time" diagnostic assistance be provided? If so, describe this assistance.

Yes, GlobalScholar Technical Support provides live answer support Monday through Friday from 8:30 AM to 7:30 PM. Technical Support will troubleshoot application failures and work with the local IT team to diagnose technical issues that may impact the testing experience. LEAs may also contact their assigned Project Manager who can assist in gathering details and facilitating the support process.

What level of local IT support should the division expect in each school/classroom in order to appropriately support successful testing?

Prior to testing, it is suggested that the school perform an inspection of the equipment to be used for testing and ensure that it meets the system requirements for Performance Series testing. The School/District IT personnel should also confirm that there is sufficient bandwidth for the number of students testing at any given time. Adjustments to the local systems and programs used to access the internet may also be needed prior to testing. During testing the local IT department should be prepared to respond to hardware failures, network and internet issues that are negatively impacting the testing experience. The PS Requirements document details the necessary technical requirements needed to assess. The Project Management team can also assist in providing more in-depth information about best practices, logistics and hardware needed to test.

Availability

For those assessments that are being developed, when will assessments be available for operational use?

GlobalScholar is not proposing to develop any assessments. Our proposed assessments are available to use as indicated in the implementation plan included with the original response.