Solicitation Information
April 25, 2013

RFP# 7463378

TITLE: Integration of Practices & Content for Mathematics & Science Professional Development Series – Rhode Island Dept. of Education

OPENING DATE AND TIME: May 23, 2013 at 11:30 AM (ET)

Questions concerning this solicitation may be e-mailed to the Division of Purchases at gail.walsh@purchasing.ri.gov **no later than May 9, 2013 at 12 Midnight.** Please reference the LOI / RFP # on all correspondence. Answers to questions received, if any, will be posted on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information.

SURETY REQUIRED: No

BOND REQUIRED: No

Gail Walsh
Chief Buyer

Vendors must register on-line at the State Purchasing Website at www.purchasing.ri.gov.

NOTE TO VENDORS:

Offers received without the entire completed four-page RIVIP Generated Bidder Certification Form attached may result in disqualification.

THIS PAGE IS NOT A BIDDER CERTIFICATION FORM

Rhode Island

Department of Education

Integration of Practices and Content in Mathematics and Science Professional Development Series

Request For Proposal

The Rhode Island Department of Administration, Division of Purchases, on behalf of the Rhode Island Department of Education (RIDE) is requesting Proposals from institutes of higher education to design and implement the professional development series: "**Integration of Practices and Content in Mathematics and Science Professional Development Series**", in accordance with the terms of this solicitation.

INSTRUCTIONS AND NOTIFICATIONS TO BIDDERS

This is an RFP, not an Invitation for Bid. Responses will be evaluated on the basis of the relative technical merits of the proposal as provided herein, in addition to cost.

Potential offerors are advised to review all sections of this solicitation carefully and to follow instructions completely, as failure to make a complete submission as described elsewhere herein may result in rejection of the proposal.

Alternative approaches and/or methodologies to accomplish the desired or intended results of this procurement are solicited. However, proposals which depart from or materially alter the terms, requirements, or scope of work defined by this Request will be rejected as being non-responsive.

All costs associated with developing or submitting a proposal in response to this Request, or to provide oral or written clarification of its content, shall be borne by the offeror. The State assumes no responsibility for these costs.

Proposals are considered to be irrevocable for a period of not less than sixty (60) days following the opening date, and may not be withdrawn, except with the express written permission of the State Purchasing Agent.

All pricing submitted will be considered to be firm and fixed unless otherwise indicated herein.

Proposals misdirected to other State locations or which are otherwise not present in the Division of Purchases at the time of opening for any cause will be determined to be late and may not be considered. The "Official" time clock is in the reception area of the Division of Purchases.

The purchase of services under an award made pursuant to this RFP will be contingent on the availability of funds.

In accordance with Title 7, Chapter 1.1 of the General Laws of Rhode Island, no foreign corporation shall have the right to transact business in the state until it shall have procured a Certificate of Authority to do so from the Rhode Island Secretary of State (401-222-3040). *This will be a requirement only of the successful bidder (s).*

Offerors are advised that all materials submitted to the State of Rhode Island for consideration in response to this Request for Proposals will be considered to be public records, as defined in Title 38 Chapter 2 of the Rhode Island General Laws.

Also, Submitters should be aware of the State's MBE requirements, which addresses the State's goal of ten per cent (10%) participation by MBE's in all State procurements. For further information, contact the State MBE Administrator at (401) 574-8253 or charles.newton@doa.ri.gov. Visit the website http://www.mbe.ri.gov

Interested parties are instructed to peruse the Division of Purchases web site on a regular basis, as additional information relating to this solicitation may be released in the form of an addendum to this LOI.

Equal Employment Opportunity (RIGL 28-5.1)
§ 28-5.1-1 Declaration of policy. – (a) Equal opportunity and affirmative action toward its achievement is the policy of all units of Rhode Island state government, including all public and quasi-public agencies, commissions, boards and authorities, and in the classified, unclassified, and non-classified services of state employment. This policy applies in all areas where the state dollar is spent, in employment, public service, grants and financial assistance, and in state licensing and regulation. For further information, contact the Rhode Island Equal Employment Opportunity Office, at 222-3090 or via email raymond.lambert@hr.ri.gov.

Subcontracts are permitted, provided that their use is clearly indicated in the offeror's proposal, and the subcontractor(s) proposed to be used are identified in the proposal.

RIGL 37-13-3.1 State public works contract apprenticeship requirements. * (a) Notwithstanding any laws to the contrary, all general contractors and subcontractors who perform work on any public works contract awarded by the state after passage of this act and valued at one million dollars ($1,000,000) or more shall employ apprentices required for the performance of the awarded contract. The number of apprentices shall comply with the apprentice to journeyman ratio for each trade approved by the apprenticeship council of the department of labor and training.

ARRA SUPPLEMENTAL TERMS AND CONDITIONS
For contracts and sub-awards funded in whole or in part by the American Recovery and Reinvestment Act of 2009. Pub.L.No. 111-5 and any amendments thereto, such contracts and sub-awards shall be subject to the Supplemental Terms and Conditions for Contracts and Sub-awards Funded in Whole or in Part by the American Recovery and Reinvestment Act of 2009. Pub.L.No. 111-5 and any amendments thereto located on the Division of Purchases website at www.purchasing.ri.gov.

PROJECT BACKGROUND

The Rhode Island Department of Education (RIDE) and Local Education Agency (LEA) partners are seeking an Institute of Higher Education to act as a partner ("the Vendor") to design, develop, deliver, build and implement an intensive, face-to-face summer professional learning experience (PLE) with follow-up training and support to improve teacher academic content knowledge and instructional strategies aligned to the Rhode Island Model: Teacher Evaluation and Support System, as well as online modules for the purpose of providing a professional development series to educators. The professional development series will be in two content areas; 1) the intersection and integration of the standards of mathematical practice (MPs) of the Common Core State Standards in Mathematics (CCSS-M) related to identified content strands, and 2) the science and engineering practices (SEPs), crosscutting concepts and disciplinary core ideas of the Next Generation Science Standards (NGSS).

The Vendor may submit a proposal to provide intensive, face-to-face summer PLE and online modules for both content areas or, for one particular content area as well as an evaluation and accountability plan that includes rigorous objectives that measure the impact of activities. As the budget allocated for this proposal encompasses the project as a whole, the vendor should provide a budget sheet in their proposal that specifically outlines each content area to be addressed and each deliverable.

Background

This section provides background information on the intent of RIDE and its LEA partners for requesting intensive, face-to-face summer PLE and companion online modules for the **Integration of Practices and Content in Mathematics and Science Professional Development Series** and, the relationship of this project to the Mathematics and Science Partnership Program (MSP).

The MSP program provides formula grants to states under ESEA Title II, Part B Sec. 2201, 2202, and 2203, as amended by the No Child Left Behind Act of 2001. The purpose of the program is to fund professional development activities that are designed to improve teachers' content knowledge and teaching skills, and that lead to improve the academic achievement of students in the areas of mathematics and science through partnerships between Institutions of Higher Education (IHEs) and LEAs. RIDE and partner LEAs are responsible for the administration of the MSP program and will award funds to support successful proposals. The **Integrating Practices and Content in Mathematics and Science Professional Development Series** is designed to respond to the needs expressed around mathematics and science statewide as defined by the purposes and goals of MSP.

Overview of Need

The current status of mathematics and science education in Rhode Island mirrors national trends of urgency associated with development and instructional supports for the delivery of internationally benchmarked standards. In response to this urgent call, Rhode Island has adopted, and is currently implementing, CCSS-M and is one of 26 Lead State Partners in the development of NGSS which are based on the National Research Council's *Framework for K-12 Science Education(Framework)*. Both CCSS-M and NGSS are internationally benchmarked and are focused on improving student achievement and instructional supports for teachers with the identification, integration and intersection of practices with disciplinary core ideas (content). With respect to the CCSS-M:

> "The Standards for Mathematical Content are a balanced combination of procedure and understanding… In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics."[1]

Rhode Island is a key member of a state-led process where state policy leaders, higher education, K-12 teachers, and the informal science and business community work together in the development of NGSS which are grounded in the *Framework.* The *Framework* articulates a broad set of expectations for students which are built around the intersection of three major dimensions; scientific and engineering practices, crosscutting concepts, and core disciplinary ideas. The vision of the *Framework* is clearly stated:

> "The Framework is designed to help realize a vision for education in the sciences and engineering in which students, over multiple years of school, actively engage in science and engineering practices and apply crosscutting concepts to deepen their understanding of the core ideas in these fields…the Framework emphasizes that learning about science and engineering involves integration of the knowledge of scientific explanations (i.e., content knowledge) and the practices needed to engage in scientific inquiry and engineering design. Thus the Framework seeks to illustrate how knowledge and practice must be intertwined in designing learning experiences in K-12 education".[2]

The drive towards using internationally benchmarked standards also comes with a need to address gaps in academic content and instruction; primarily instruction around integrating practices in mathematics and science. As one method to address these gaps in instruction, RIDE and partner LEAs intend to work with the Vendor to develop an intensive, face-to-face summer PLE and offer online modules focused on the integration and intersection of practices and content in mathematics and the integration and intersection of practices, crosscutting concepts and disciplinary core ideas in science. The development of these instructional supports is very timely; it is expected that Rhode Island LEA's will fully implement the CCSS-M by the Fall of 2013 and, as a Lead State Partner, Rhode

[1] Common Core State Standards Initiative, "Mathematics, Introduction, Standards for Mathematical Practices", 2012< http://www.corestandards.org/the-standards/mathematics/introduction/standards-for-mathematical-practice/> (Sept. 2012)

[2] National Research Council, "A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Idea," 2011, <http://www.nap.edu/openbook.php?record_id=13165&page=8>

Island has committed to strongly consider adoption of NGSS, which are expected to be completed in the Spring of 2013.

Purpose

RIDE and partner LEAs are seeking an IHE, i.e. the Vendor, to;

1. Design, develop, and deliver an intensive, face-to-face summer PLE for teachers spanning 10 days during July, 2013 (July 15-26) and six (6) days of ongoing follow-up training and support during the 2013-2014 school year emulating instructional strategies that actively engage teachers with the integration of MPs and SEPs with content to deepen their understanding of academic content knowledge in mathematics and science and align to the Rhode Island Model: Teacher Evaluation & Support System (Edition II);

2. Design, develop, and build corresponding online modules to improve academic content and the integration of MPs and SEPs in mathematics and science which showcase strong instructional strategies and instructional best practices developed by those teachers involved in the summer PLE during the 2013-2014 school year, (modules being available to all Rhode Island teachers starting in 2015), and;

3. Design and implement an evaluation tool that will generate data outlining the effectiveness of their program(s) as outlined in the Mathematics and Science Partnership Program, Part B, Section (e) Evaluation and Accountability Plan[3].

Content

Interested vendors may respond to the request for proposal to develop one or both PLE options being sought. The Vendor will work with RIDE and LEA partners to develop a professional development series focusing on the integration and intersection of the MPs and CCSS-M content and/or the integration and intersection of SEPs, crosscutting concepts and disciplinary core ideas in Science of the NGSS to be delivered directly to K-12 teachers from partner LEAs. The professional development calendar will include two consecutive weeks of intensive, face-to-face summer course work (10 days) to be offered between July 15, 2013 and July 26, 2013, six (6) days of stand-alone sessions throughout the school year (2013-2014), for up to 100 teachers (50 teachers K-12 focusing on mathematics and 50 teachers K-12 focusing on science).

Online Modules and Program Evaluation

The Vendor is required to also develop online modules based on the intensive face-to-face PLE that participants received as well as, an evaluation and accountability plan that includes rigorous objectives that measure the impact of activities as defined by the purposes and goals of MSP. Online modules will be populated with digitally recorded video coverage of PD sessions, teacher interviews, and teachers' efforts to execute model lessons in their classrooms during the 2013-14 school year based on their summer PLE. These videos will be used to highlight strategies of instructional best practice and professional growth and will be made available to all Rhode Island educators by the beginning of the 2014-2015 school year.

[3] Part B — Mathematics and Science Partnerships http://www2.ed.gov/policy/elsec/leg/esea02/pg26.html

SCOPE OF WORK

This section describes RIDE's understanding of practices in mathematics and science as defined by the CCSS-M, the *Framework* and NGSS as well as, the deliverables the Vendor is expected to provide in order to create the intensive professional learning experience and the online modules for development and implementation of the **Integration of Practices and Content in Mathematics and Science Professional Development Series.**

Scope Determination Process

Following the formal grant award, a project team was established within RIDE and its partner LEAs to begin planning for the **Integrating Practices and Content in Mathematics and Science Professional Development Series** and corresponding online modules. Requirements were developed through multiple interviews with RIDE staff and partner LEA staff as well as, research on existing best practices and systems.

The Vendor will be a contracted resource to the partner LEA team(s). The RIDE content specialists will also work closely with the Vendor and LEA Project Directors.

The Vendor will be expected to coordinate with partner LEA representatives and other groups within RIDE (e.g., communication specialists, curriculum specialists, and academic support education specialists, etc.) to;

- Receive, manage and communicate LEA and RIDE feedback as part of the development phase;
- Finalize the PLE curriculum and online module design, rollout and evaluation and accountability plan;
- Describe mechanisms it would use to manage scope, including mechanisms to manage change requests, and;
- Provide a detailed description of an evaluation and accountability plan which includes rigorous indicators which measure the impact of the professional development. The evaluation should measure the effectiveness of the intensive summer PLE, the impact the summer PLE has on the integration of practices and content throughout the 2013-2014 school year as compared to those teachers who take part in the online modules that will be built and offered at the beginning of the 2014-2015 school year.

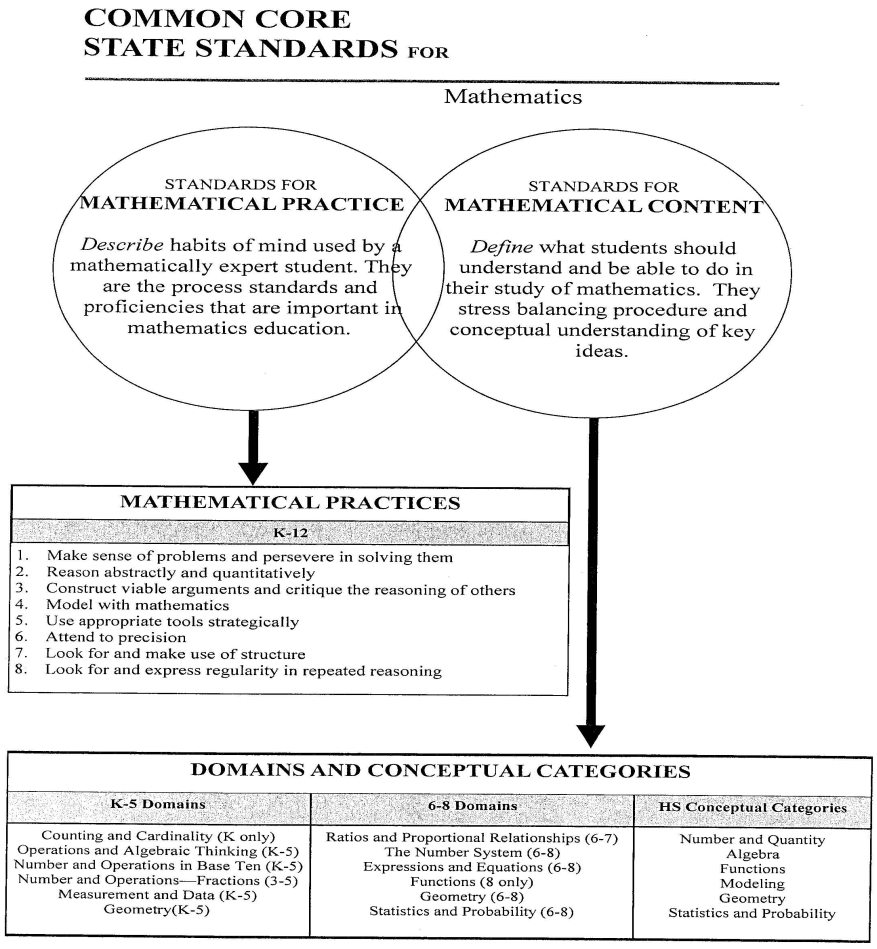
Practices and Content in Mathematics

Rhode Island has adopted and will fully implement the CCSS-M by the fall of 2013. The CCSS-M do not dictate district curriculum or teaching methods; curriculum is developed by each district to meet the needs of their students. The Standards for Mathematical Practice in CCSS-M, describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report Adding It Up: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual

inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy)[4].

RIDE and partner LEAs define the Standards for Mathematical Practice as describing the habits of mind used by a mathematically expert student. They are the processes and proficiencies that are important in mathematics education. The Standards for Mathematical Practice however, are not to be taught in isolation but rather in conjunction (integrated) with the Standards of Mathematical Content which define what students should understand and be able to do in their study of mathematics. They stress balancing procedure and conceptual understanding of key ideas. *Figure 1*. *Common Core State Standards for Mathematics* identifies the Standards for Mathematical Practice and the Domains and Conceptual Categories that are the Standards for Mathematical Content.

Figure 1. Common Core State Standards for Mathematics



[4] Common Core State Standards for Mathematics, 2009, p. 6

Practices and Content in Science

Rhode Island is one of 26 Lead State Partners in the development of the NGSS and has brought together a wide representation of leaders in education and business to form the Rhode Island Strategic Leadership Team (RISLT). The purpose of the RISLT is to; 1) provide input to the writers of the NGSS by reviewing drafts of the standards and 2) to strategize the transition between our current science standards, the Rhode Island Grade Span Expectations in Science (GSEs) and the NGSS. As a result of strategy sessions and feedback from the field, RIDE, RISLT and partner LEAs have identified that intensive professional development is necessary surrounding the integration of SEPs, crosscutting concepts, and disciplinary core ideas, as defined in, the *Framework*. The *Framework* uses the term "practices" instead of a term such as "skills" to emphasize that engaging in scientific investigation requires not only skill but also knowledge that is specific to each practice[5].

> "Engaging in the practices of science helps students understand how scientific knowledge develops; such direct involvement gives them an appreciation of the wide range of approaches that are used to investigate, model, and explain the world. Engaging in the practices of engineering likewise helps students understand the work of engineers, as well as the links between engineering and science. Participation in these practices also helps students form an understanding of the crosscutting concepts and disciplinary ideas of science and engineering; moreover, it makes students' knowledge more meaningful and embeds it more deeply into their worldview.
>
> The actual doing of science or engineering can also pique students' curiosity, capture their interest, and motivate their continued study; the insights thus gained help them recognize that the work of scientists and engineers is a creative endeavor—one that has deeply affected the world they live in. Students may then recognize that science and engineering can contribute to meeting many of the major challenges that confront society today, such as generating sufficient energy, preventing and treating disease, maintaining supplies of fresh water and food, and addressing climate change.
>
> Any education that focuses predominantly on the detailed products of scientific labor—the facts of science—without developing an understanding of how those facts were established or that ignores the many important applications of science in the world misrepresents science and marginalizes importance of engineering".[6]

The eight practices of science and engineering that the *Framework* identifies as essential for all students to learn, are listed below:

1. Asking questions (for science) and defining problems (for engineering)
2. Developing and using models
3. Planning and carrying out investigations
4. Analyzing and interpreting data
5. Using mathematics and computational thinking
6. Constructing explanations (for science) and designing solutions (for engineering)
7. Engaging in argument from evidence
8. Obtaining, evaluating, and communicating information

[5] NRC Framework, 2012, p. 30
[6] NRC Framework 2012, pp. 42-43

NGSS and performance expectations that are aligned to the *Framework* must take into account that students cannot fully understand scientific and engineering ideas without engaging in the practices and the discourses by which such ideas are developed and refined. At the same time, they cannot learn or show competence in practices except in the context of specific content[7].

Suggested Content for Integrating Practices and Content in Mathematics and Science Professional Development Series

Suggested major areas for the intensive, face-to-face summer PLE and subsequent online modules for the **Integrating the Practices and Content for Mathematics and Science Professional Development Series** include the following;

Instructional Best Practices

Consistency in language and expectations regarding instructional best practices for all Rhode Island teachers is essential for the success of this professional development series. Successful proposals should address the integration of MPs and SEPs with content by identifying a variety of strategies that participants will utilize during intensive, face-to-face summer institutes and online modules. Instructional strategies that integrate the MPs and SEPs with content will organically compliment the instructional best practices that have been identified in The Rhode Island Model[8]. Strategies should be research-based, actively involve institute attendees, and prepare them to effectively apply lessons learned to their classroom instruction, ultimately, to increase teacher and student content knowledge.

The Vendor will provide a syllabus of the 10 day intensive summer learning experience including detailed engagement activities which incorporate the following:

A. Modeling best practice and providing guidance on;
    i. Effective use of learning targets/objectives;
    ii. Expectations for learning and content.
B. Effective questioning that promotes the conceptual understanding of content as well as the skills represented by the MPs and SEPs ;
    i. Quality of questioning and prompts;
    ii. Discussion techniques;
    iii. Increased student participation.
C. Employing techniques to build consistent academic vocabulary in mathematics and science to enhance understanding, precision, and communication.

[7] NRC Framework, 2012, p. 218.
[8] The Rhode Island Model: Teacher Evaluation & Support System (Edition II)
http://www.ride.ri.gov/educatorquality/educatorevaluation/Docs/Teacher_Model_GB-Edition_II_FINAL.pdf

D. Promoting problem solving and collaboration in the classroom with the use of interactive games, simulations and technology ;

   i. Learning by engaging in activities and assignments that are appropriate and that integrate practices with content;

   ii. Guidance on collaborative structure and pacing.

E. Supporting assessment in instruction by aligning formative assessment strategies to the online course developed by RIDE, entitled *Linking Learning and Assessment*[9] to foster consistent language, understanding and engagement with classroom formative assessment practices across Rhode Island.

   i. Using student-developed models, engaging in classroom discourse, [including differentiated instruction and learning scaffolds]

F. Use of 21st Century Skills[10];

   i. Focusing on knowledge and expertise;

   ii. Emphasizing deep understanding rather than shallow knowledge;

   iii. Engaging with the real world data, tools, and experts;

   iv. Actively engaged in solving meaningful problems, and;

   v. Using multiple measures of mastery.

Overall, any research-based instructional strategies should be those that integrate MPs and SEPs with content. It is an expectation that these strategies will not only be modeled for teachers for direct application in their classroom but, that teachers will also engage in the strategies that integrate MPs and SEPs with content to help them deepen their own understanding of subject content . Far too often, professional development sessions tell but do not demonstrate how to apply strategies in the classroom resulting in inconsistent application.

Teachers may want alternative instructional strategies. Some instructional strategies that may be explored with educators during the PLE are:

A. The use of a flipped lesson format is encouraged as a means to disseminate some basic knowledge about the integration of content with MPs and SEPs.

B. The modeling and immersion in a math workshop model is encouraged as an integral approach when addressing mathematical content on the secondary level for the purpose of developing collaborative skills in the solving and justification of solutions for authentic problems.

[9] Linking Learning and Assessment in Rhode Island Schools: http://www.ride.ri.gov/Assessment/DOCS/Formative/Linking_Learning_Assessment-Course_Overview.pdf

[10] Partnership for 21st Century Skills: http://www.p21.org/overview

C. Project based learning to provide opportunities for students to carry out sustained investigations and engineering design projects by applying the SEPs to develop their understanding of the core ideas, giving students the opportunity to generate understanding and interpret evidence to develop explanations of the natural world.

Overview of Suggested Mathematical Content

Vendors must include an outline of the content to be addressed in the two week (10 day) intensive face-to-face PLE as well as that for the online modules. Content should address the strategies to integrate the MPs with content standards identified as "critical" in the CCSS-M or "major" by the PARCC Model Content Frameworks[11] as well as modeling instructional best practices.

Essential Content in Mathematics:

A significant portion of the content for elementary teachers should draw upon the learning progression documents that focus on the critical content areas, most notably, fractions, while simultaneously connecting the content to the MPs. The goal should be on increasing teacher content knowledge and modeling the integration of MPs that a teacher can then transfer to his/her classroom. With increased content knowledge and instructional strategies that foster the integration of the MPs, teachers will be empowered to improve their students' ability to solve authentic problems, employ a variety of strategies, and foster justifications of solutions based on sound mathematical reasoning,

Additional Content in Mathematics:

The use of "Practice Forward Tasks" should be integrated into the content of the professional development sessions. Such tasks are aligned to the practice- related (implicit) and practice-integrated (explicit) content standards and require a student to simultaneously demonstrate content knowledge as well as a level of expertise with respect to certain MPs. Teachers' experiences with these tasks should provide them with a level of confidence that will enable them to instruct their students in accessing this type of item.

Teachers need to learn how the NGSS connect to and support the CCSS in literacy and mathematics. They need to see how the CCSSs are embedded within several of the practices of NGSS and enhance learning within and across content areas.

Specific Resources that Teachers Can Access

The Vendor is encouraged to provide a list of any resources (e.g., sample tasks, investigations, or guided activities) tied to the Common Core State Standards that teachers can use as instructional supports in their classrooms. The Vendor should be able to integrate these resources into the face-to-face professional development and subsequent modules.

A sample of possible resources is listed below:

[11] PARCC Model Content Frameworks http://www.parcconline.org/mcf/mathematics/parcc-model-content-frameworks-browser?field_grades_tid%5B%5D=9&field_mathsubjects_tid%5B%5D=3&field_mathdimensions_tid%5B%5D=17&body_value=

- University of Arizona Mathematical Progressions: http://ime.math.arizona.edu/progressions/
- Illustrative Math: www.illustrativemathematics.org
- New York Released Tasks: http://www.engageny.org/resource/curriculum-exemplars-for-mathematics
- National Council of Teachers of Mathematics Core Math Tools: http://www.nctm.org/resources/content.aspx?id=32702
- University of Utah Virtual Math Manipulatives: http://nlvm.usu.edu/en/nav/vlibrary.html
- Kansas Association of Teachers of Mathematics Mathematical Flipbooks (scroll to bottom): http://katm.org/wp/common-core/

Overview of Suggested Science Content

Vendors must include an outline of the content to be addressed in the two week (10 day) intensive face-to-face PLE as well as that for the online modules. Content should address the strategies used to integrate SEPs, crosscutting concepts, with disciplinary core ideas in the NGSS that parallel the current Rhode Island Grade Span Expectations in Science (GSEs) as well as modeling instructional best practices.

Essential Content in Science:

Science content will be driven by the content needs of the attendees. Vendors should have the capacity to connect teachers with arts and science colleagues to help enforce content or address lack of engagement with the SEPs. Attendees will come prepared with a previously developed unit of study or a series of lessons or smaller units. The vendor will support teachers by;

- Guiding a review of their previously developed units of study (a series of lessons or smaller units) to identify the practices, crosscutting concepts, core ideas and associated Performance Expectations in the NGSSs;
- Emulating instructional strategies that best support the integration of the SEPs and content so that teachers are engaged in the integration the way that students would be in their classrooms; addressing their own misconceptions and being given the opportunity to actively engage in the SEPs through sustained investigations related to core disciplinary ideas
- Supporting teachers in the implementation of instructional strategies that integrate SEPs and content with students during the 2013-2014 school year.

Additional Content in Science:

Teachers need to learn how the CCSS literacy and mathematics standards connect to and support the NGSSs. They need to see how the CCSSs are embedded within several of the practices and enhance learning within and across content areas.

Specific Resources that Teachers Can Access: The Vendor is encouraged to provide a list of any resources (e.g., sample tasks, investigations, or guided activities) tied to the Next Generation Science Standards that teachers can use as instructional supports in their classrooms. The Vendor should be able to integrate these resources into the face-to-face professional development and subsequent modules.

A sample of possible resources is listed below:

- National Academies Press, *A Framework for K-12 Science Education:* http://www.nap.edu/catalog.php?record_id=13165
- Next Generation Science Standards (standards and all appendices): http://www.nextgenscience.org/
- National Science Teachers Association Learning Center: http://learningcenter.nsta.org/
- Stanford University, Graduate School for Education (Understanding Language): http://ell.stanford.edu/publication/language-demands-and-opportunities-relation-next-generation-science-standards-ells
- TERC Resources: http://www.terc.edu/
- Massachusetts Institute of Technology BLOSSOMS: http://blossoms.mit.edu/
- NASA K-12 Resources http://education.ssc.nasa.gov/k12.asp
- NOAA Education Resources http://www.education.noaa.gov/
- Harvard University Online University (resources such as NASA Chandra Project and Online Museum of Natural History) http://www.harvard.edu/resources-offices/online-learning
- Partnership for 21st Century Skills: http://www.p21.org/overview

Online Module Content:

Online modules should demonstrate all of the content outlined above as well as the application of this content in the classroom. The vendor should also supply a facilitator's guide, materials for implementation, and a mechanism for teachers to inventory and reflect upon their own learning both before and after participating in the modules. Additionally, the post reflection should assist teachers in formulating a personal action plan to guide them in applying their learning in their own classrooms.

Use of Videos

Vendor proposals should include details on how it would create and utilize digital videos as needed, and how the videos would include examples and vignettes from the intensive, face-to-face summer PLE and ongoing follow-up training/support that teachers will receive. Our LEA partners have expressed strong interest in having examples that feature local teachers increasing academic content knowledge and utilizing instructional best practices to increase student knowledge and engagement by integrating MPs and SEPs with academic content both during intensive summer

institutes and during the school year. Selection of teachers to feature in the videos would need to go through a vetting process with RIDE and LEA partners.

Online Modules

RIDE expects the Vendor to propose development and implementation of online modules that will enable training and support to educators in Rhode Island to access **Integration of Practices and Content in Mathematics and Science Professional Development Series**. These online modules will be housed in the Instructional Management System (IMS) at RIDE and will be accessed by educators statewide.

While digital videos are desired and required, the online modules should NOT simply be a collection of videos. The proposal should detail how the online module system parallels the intensive, face-to-face summer PLE. In essence, how would an educator who did not participate in the PLE and follow-up training benefit equally through the use of the online modules. The Vendor should propose other features and elements in the system to make it interactive and have activities built in the modules to engage teachers.

The Vendor is expected to include specifics on the content of the online modules in its response that complements the curriculum developed for intensive, face-to-face summer PLE the integration of practices and content for mathematics and science. If modules have been developed by the Vendor in the past, RIDE encourages the Vendor to provide details on their effectiveness in terms of implementation, usage, and the impact it had on teacher effectiveness. If these modules will be designed specifically for usage by Rhode Island LEAs, the Vendor is expected to provide details of the; 1) technical process of development, 2) outline of the content to be included, and 3) the specific technology and specifications. The Vendor is also expected to provide specifics of its capabilities (internal or through partnerships) to demonstrate the technology, content, and communication expertise it will bring to the project.

Desired Characteristics

The online modules are expected to have the following features:

- Apply to both teachers and administrators. Our partner LEAs have requested that specific administrative modules also be developed to help principals and other administrators learn how to monitor, support and supervise teachers doing this work. These administrator modules should not just be about the content, but also address aspects on change management and strategies for encouraging teachers to adopt innovative instructional strategies.

- Provide teachers with an engaging, innovative, and interactive learning experience (including features that allow teachers to drag and drop, for example). While the modules will include videos of teachers demonstrating specific practices integrated with content through instructional strategies, the modules should provide teachers with a very interactive experience.

- Provide action-oriented and practical techniques in order for teachers to immediately practice and apply the content learned.

- Provide user friendly structure in order for modules to be used for in-depth learning as well as allow teachers to link to specific parts of the modules for a quick refresher.

- Build content over time so they can be used for continuous professional development. Several LEAs utilize professional learning communities (PLC) and would benefit to having the ability to integrate these modules in their PLC discussions.
- Provide mechanisms for LEAs to track the depth of learning of the participants and allow ability to provide professional credit to teachers if desired.
- Link modules within the IMS allowing teachers access.

System Requirements

In its response, the Vendor should provide its approach to the following:

- Proposed technology (e.g., Html 5) and format of content (XML, etc.) to build modules;
- Technological features and design to ensure an interactive and engaging experience;
- Ease of system modification for simple content changes as well as maintenance;
- Mechanism of implementing single sign-on and associated technological integration to enable educators to access the modules through logging on to the IMS;
- Design guidelines followed (e.g., adherence to the Web Content Accessibility Guidelines (WCAG) 2.0, being browser agnostic etc.)
- Approach to provide rich web analytics (usage, hits, etc.) to help track and ensure adoption.

Ensuring Adoption

A key challenge is ensuring teacher engagement in online professional development opportunities as well as encouraging administrators provide the necessary time and support for teachers to access the online PD. The Vendor is encouraged to submit ideas that can be built into the online modules to address this challenge. (e.g., a tiered access model which allows access to content based on completing specified interactive activities, certificates of completion, and means to engage participants).

LEA experience indicates that educators' initial experiences using the system are crucially important in getting educator buy-in. The modules should be effective in explaining concepts, showing examples, and sharing practical techniques from the very start to encourage receptivity and adoption.

Professional Development Needs and Module Training

LEAs have budgeted for each participating teacher to receive 16 days of professional development; 10 consecutive days of professional development during the Summer of 2013 (to be provided between July 8, 2013 and July 26, 2013) and up-to 6 days of professional development and/or time out of class dedicated to the collection of video artifacts (i.e., model lessons, interviews, focus groups, class coaching). The Vendor is expected to develop and conduct intensive professional development for approximately 50 educators in each content area (mathematics and science) totaling 100 educators:

The Vendor is expected to provide guidance to LEAs on helping develop an LEA and school implementation plan for online modules. The Vendor should also provide guidance on how LEAs can support teachers in PLCs working on instructional strategies to integrate practices and content.

- While an overview of the modules is desired, training should NOT solely focus on the content of the modules (i.e. "this is what practices are") or how to use the modules (the modules should be intuitive enough for to require little support).
- Training should include how teacher leaders and school and district administrators can help facilitate the implementation and extension of the integration of MPs and SEPs and content at their school sites.

Integration with Instructional Management System (IMS)

The IMS is not a part of this RFP, but it is important to understand the vital role that the IMS plays in allowing districts and teachers to access data tools, assessment modules, curriculum units, resources, to item banks, pre-constructed assessments, and teacher-constructed assessments.

Major elements of the IMS include:

- Importing, storing, categorizing and providing access to curriculum and instructional materials and assessment results;
- Providing rich visual reporting of assessment and other student data;
- Providing powerful querying functionality of assessment and other student data; and
- Tightly integrating curriculum, instruction and assessment, in order to allow users to diagnose student learning needs and take specific action.

RIDE expects that the online modules for **Integrating Practices and Content in Mathematics and Science Professional Development Series** to be housed in and delivered through the IMS so that teachers only have to access one system for assessment and curriculum support. RIDE expects that educators will log on to the IMS to access the **Integration** modules. Module completion should also be tracked through the IMS reporting functions.

Ownership and Sustainability Plan

RIDE will be the proprietary owner of all modules produced as a result of this grant. In particular, the Vendor needs to ensure modules are built so that LEAs can use the modules to continue to train teachers without having to pay access fees.

Project Phases and Project Management

While the final work plan will be based on the submission from the successful Vendor, the assumption is that the project will have five major phases, with the closing of each phase marked by signoff from RIDE's content specialists and LEA project directors:

Initiation phase: This phase will involve the review of all CCSS-M*, Framework* and NGSS materials and will result in a consensus of the exact project scope and approach. The output of this plan will be a detailed list of tasks (Work Breakdown Structure, etc.) and the development and approval of a final project plan.

Design, development, and review phase: This phase will involve three main components

Design

1. Design of content to cover with teachers for training on integration of practices and content in either mathematics or science, including specific strategies to cover practices as well as a defined process for developing custom videos that includes some Rhode Island teachers for online modules;

2. Design of the use of technology (e.g., using wireframes) to illustrate how the content will be interactively deployed in online modules for training teachers;

3. Design of the communication elements (including video development) to ensure the materials are effective for the Rhode Island teachers.

Development

1. Development of content and curriculum to engage teachers with integration of practices and the identified content during face-to-face summer professional development. Content would include free content available from other resources or established experts as well as content supplied by Vendor;

2. Development of custom videos for Rhode Island (e.g., videos of classrooms, interviews, focus groups);

3. Development of the online modules using appropriate technology to provide the content;

Review

1. Review of content with RIDE content specialists;

2. Review of modules by RIDE and LEA personnel, as well as selected Rhode Island teachers and administrators;

This phase may involve the development of a sample module to help clarify the requirements. In addition, this phase will involve a thorough risk assessment of the requirements, with risk mitigation and quality assurance strategies.

Testing phase: This phase will involve the unit testing, integration testing and end-user acceptance testing of the online modules to resolve any issues as necessary and ensure the modules are according to the approved requirements.

Launch phase: This phase will involve the launch of the online modules and provide access to the modules from within the IMS. This phase will also involve the Vendor training RIDE staff and LEA project directors on how to use and maintain the modules at either user end. Vendor will also be responsible for training teacher leaders for two days on how they can help facilitate the implementation of the practices at their school sites. The Vendor will not be required to provide ongoing training. In its approach, the Vendor should also specify how user support issues will be addressed.

Revision phase: This phase will involve refining and making changes to the online modules based on the approach specified in the design phase. The modules should be built such that RIDE staff can easily make minor changes, and the Vendor response should indicate suggested approach for making module revisions and the guidance that will be provided to support RIDE in doing so. The Vendor should indicate in its proposal the estimated amount of resources required to maintain the modules.

Project Milestones and Deliverables

The face-to-face professional development curriculum will be designed and developed during the spring of 2013 and the curriculum will be delivered to the content cohorts (teachers) the summer of 2013(July 15-26). The online modules are to be designed and initial development is to commence in the spring of 2013. Modules are to be completed by the 2014-2015 and must be ready to be rolled out by the spring of 2015 statewide. Table 1 (below) provides an outline of the anticipated timeline for major contract activities. This timeline is not exhaustive and is intended only to provide a sense of the workflow of major program activities.

During the contract negotiation period, RIDE will work with the recommended contractor to establish a specific project plan and schedule. The Vendor's response should address any concerns with the proposed timeline and include suggestions for requirement modifications.

Table 1: Project Milestones and Deliverables

Projected Timeline	Activities	Deliverables
Spring 2013	Select vendor	Contract Awarded
Spring 2013	Define detailed project plan, with scope and timeline	Project Plan; Scope Document with Work Breakdown Structure detailing roles and responsibilities and a timeline of deliverables
Spring 2013	Develop detailed curriculum for intense professional development training sessions and online modules	Work with RIDE and LEA partners to identify the core content areas in mathematics and/science which will be the content area of focus to use for integration of practices
Spring - September 2013	Develop Design, Functional and System Requirements (including content, technology, communications)	Design, Functional and System Requirements
July 15-July 26, 2013	Deliver face-to-face professional development	Professional development delivery
September 2013	Develop risk assessment, quality assurance, testing and requirements management plans	Risk Assessment, Quality Assurance, Testing and Requirements Management Plans
September	Gather and edit artifacts to	Collection of edited artifacts consisting of

2013- April 2014	populate online modules	video clips, readings, teacher interviews, classroom examples, model lessons, growth reflections to be used to populate online modules
October 2013- June 2014	Develop beta modules (including conducting interviews, videos, developing interactive content)	Beta Modules
November 2013-July 2014	Perform testing (load testing, unit testing, etc.) and collect district feedback	Quality Control Document, District Feedback Document
January 2014-August 2014	Develop final modules, facilitate RIDE sign-offs, and integrate within IMS	Final Modules integrated in IMS
May 2014 – January 2015	Update and maintain online modules as needed	Revised Modules

The Vendor should provide detail on the project management approach it proposes for the project. The Vendor should also detail in its response how it will ensure the following (regardless of the project management approach proposed by the Vendor):

- Scope verification and control
- Schedule management
- Requirements documentation
- Risk assurance
- Quality assurance

Roles and Responsibilities

The Vendor is responsible for providing and maintaining sufficient numbers of qualified staff to meet the needs of this project and provide the services outlined in its response to this RFP. It is expected that the Vendor would address how it would provide the following range of skills necessary for successful completion of the project:

- Content expertise in CCSS-M;
- Content expertise in the *Framework* and NGSS;
- Expertise in instructional best practices (The Rhode Island Model)
- Technology expertise in developing interactive modules (including digital videography);
- Project management expertise;

- Training expertise.

The Vendor is also responsible for developing a detailed resource plan for the Vendor, RIDE staff, and LEA project directors, which defines the staffing and organizational chart for all team members, with detailed roles and responsibilities. The Vendor is also responsible for developing a communication plan for the entire team, which details how project progress, issues and information requests will be handled throughout the project.

At a minimum, the following team members will be involved in the project:

- Director of Instruction, Assessment and Curriculum (1)
- Mathematics Content Specialists (2)
- Science and Technology Specialists (2)
- LEA Project Directors (7)

None of the above-mentioned RIDE staff will be devoted 100% to this project. The vendor plan should include a table describing the necessary levels of RIDE and LEA staff involvement that would be required to ensure the successful completion of the project.

Out of Scope

The Vendor is not expected to provide the following:

- Instructional Management System

Challenges

RIDE and partner LEAs expect the Vendor to propose specific professional development that will enable training and support educators in the integration of practices within their content areas.

To the extent possible, professional development should occur with minimal loss of instructional time. Professional development that occurs outside of the school day and or is provided as job-embedded coaching is optimal. In addition, opportunities for cross district sharing is preferred. Finally, it is beneficial to teachers to be provided with opportunities to create a product that can be implemented in the classroom upon return. This should include opportunities for reflection on how the implementation will change practice as well as the provision on how the implementation increased student achievement and understanding of the topic.

REQUIRED VENDOR RESPONSE FORMAT

All vendor proposals must follow the format and include all relevant content described in the table below.

Section	Content
1	Vendor should state their understanding of the challenges facing participating LEAs and RIDE in this particular project.
2	Vendor response should include a description of the project management

	approach, including descriptions of: project planning components to a develop acceptance criteria for project deliverables; development of project charter, project plan, and communications plan; and regular project reporting to the client.
3	Proposals should include detailed responses for each deliverable indicated in the RFP scope of work, including: a Statement describing proposed design/features for each proposed deliverable in detail b Examples from prior work as applicable for each proposed deliverable c Timeline for the work and date by which the deliverable will be completed d Description of the method of implementation e Internal and external staff to be involved and their number of hours or % of time period
4	Vendor should describe how they will capture requirements that are not sufficiently specified at the start of the project.
5	Vendor proposals should include detailed technical information in their responses (as applicable)
6	Proposal should include a section that describes the skills and processes that will need to be in place internal to participating LEAs and RIDE for the project to be sustained once the project is complete. Vendor should describe how they intend to help ensure those processes and skills are developed and a training plan (including the number of educators who will need to be trained) for ensuring the system realizes its intended goals.
7	Vendors must provide a Cost Proposal that breaks out cost for each deliverable, including: a Number of hours and hourly rates for staff completing the work b Travel and expenses budgets for that specific deliverable
8	Vendor should provide a detailed project plan as an appendix to their proposal.
9	Vendor should include detailed information about organizational and project staff, including: a Organizational Chart b Resumes of staff that will be working on the project. Show % of time the staff will be working on-site. Staff cannot be changed from those in the proposal without agreement by participating LEAs and RIDE.
10	**Additional Contractor Requirements/Qualifications** ● Bidders must submit a letter of transmittal signed by an owner, officer, or other authorized agent. ● Bidders must submit relevant organizational information, a list of similar

	projects undertaken and/or clients served, agency expertise relative to the services requested, and a statement of existing workload as it impacts the performance of the project. ● Bidders must provide an overview of key personnel assigned to the project including education and prior experience. ● Bidders must disclose any work to be subcontracted including the specific work to be performed and staffing, organizational structure, and business background of the sub-contractor.

TERMS OF THE CONTRACT

The contract will begin **upon issuance of state purchase order (on or about July 2013)** and end **June 30, 2015.** The scope of the work may be modified by participating LEAs and RIDE prior to beginning work on a given task. Participating LEAs and RIDE retains the option of granting a time extension of up to **one year** with additional funding if available and if the level of work is extended by mutual written consent. If necessary, deficiencies in performance of services and/or failure to supply deliverables in a complete and timely manner will be documented in writing by RIDE. Should a pattern of substantial dissatisfaction become apparent, participating LEAs and RIDE reserves the right to terminate the contract.

COST PROPOSAL/TERMS OF PAYMENT

The contractor must prepare a ***separate sealed*** cost proposal reflecting the hourly rate or other fee structure proposed for this scope of services using the Cost Proposal Forms contained in Appendix A.

The total cost of the contract is not to exceed **$542,057 or $271,000 if only proposing to complete one Professional Learning Experience (Mathematics or Science).** The contract will span two years, starting in the spring of 2013 and ending in the spring of 2015.

The Rhode Island State Fiscal Year is July 1 – June 30.

PRE-PROPOSAL QUESTIONS

Questions concerning this solicitation may be e-mailed to the Division of Purchases at gail.walsh@purchasing.ri.gov no later than the date & time listed on the cover sheet of this solicitation. **Send your questions in Microsoft Word format.** Please reference the RFP # on all correspondence. Questions received, if any, will be posted and answered on the Internet as an addendum to this solicitation. It is the responsibility of all interested parties to download this information. For computer technical assistance, call the helpdesk at 401-222-3766 or lynda.moore@doit.ri.gov.

PROPOSAL SUBMISSION

All document pages are to be **numbered in consecutive order**.

The TECHNICAL and SEPARATE SEALED COST PROPOSAL ("original" plus FOUR (4) copies of each) submissions are to be either mailed or hand-delivered in a sealed envelope marked: ***"RFP 7463378 –"Integration of Practices and Content for Mathematics and Science Professional Development Series"*** **For RIDE** by **the date and time listed on the cover page of the solicitation to:**

RI Dept of Administration
Division of Purchases, 2nd Floor
One Capitol Hill
Providence, RI 02908-5855

NOTE: Proposals misdirected to other State locations or which are otherwise not presented in the Division of Purchases by the scheduled due date and time will be determined to be late and will not be considered. The "official" time clock is located in the Division of Purchases Reception area.

Proposals should include the following:

1. A completed and signed four-page RIVIP Bidder Certification Cover Form, available at www.purchasing.ri.gov.

2. A **separate sealed** Cost Proposal reflecting the fee structure, proposed for this scope of services.

3. A separate Technical Proposal describing the qualifications and background of the respondent and experience with similar programs, as well as the work plan or approach proposed for this project.

4. A completed and signed W-9 (taxpayer identification number and certification). Form is downloadable at www.purchasing.ri.gov. **Please include with Original Proposal only.**

5. In addition to the multiple hard copies of proposals, respondents are requested to provide their proposal in electronic format (CD / flash drive), Microsoft Word / Excel or PDF format is preferable. Only 1 electronic copy is requested. This CD or flashdrive should be included in the proposal marked "original."

TECHNICAL PROPOSAL/REQUIRED ELEMENTS

1	Contractor understanding of the Issues	(10 points)
2	Work Plan	(25 points)
3	Capacity of the Agency Effectively to Administer the Project	(25 points)
4	Quality of Key Personnel (including Curriculum vitae)	(10 points)
5	Cost Proposal	(30 points)

The technical proposal should respond to each area of the required elements listed above, and contain a cost proposal using the forms in Appendix A and Appendix B. Supplemental information may be appended to the technical proposal.

The State reserves the right to reject any or all proposals submitted as a result of this RFP process. Proposals found to be technically or substantially non-responsive at any point in the evaluation process will be rejected and not further considered.

APPENDIX A
Budget Multi-Year Projects

The Contractor estimates that its budget for work to be performed under this Agreement is as follows:

Expense Category	Estimated Expenditures			
	Year 1	Year 2	Year 3	Year 4
1. Salary and Fringe Benefits	0	0	0	0
2. Consultant	0	0	0	0
3. In-State Travel	0	0	0	0
4. Out-of-State Travel	0	0	0	0
5. Printing	0	0	0	0
6. Office Expense	0	0	0	0
7. Telephone	0	0	0	0
8. Educational Materials	0	0	0	0
9. Equipment	0	0	0	0
10. Data Processing	0	0	0	0
11. Rental	0	0	0	0
12 Other	0	0	0	0
Subtotal	0	0	0	0
Indirect Cost	0	0	0	0
TOTAL	0	0	0	0

It is understood and agreed that the amounts indicated above for the several line items are estimates of expenditures to be incurred by the Contractor on behalf of this Agreement and to be claimed by the Contractor for reimbursement under this Agreement. It is further understood and agreed that actual expenditures may vary from the estimates set forth above and that such variations shall not in themselves be cause for disallowance of reimbursement by RIDE; provided, however, that the Contractor shall notify and obtain the approval of the contract officer, in writing, if expenditures to be claimed for reimbursement in any line item above shall begin to vary significantly from the estimate given above; and provided further that unless permission of the contract officer shall have been obtained in advance, no expenditure shall be claimed by the Contractor for reimbursement by RIDE under this Agreement if such expenditure shall have been

incurred in a line item category not listed above. Transfer of funds is permitted between Expense Categories (1)and (2) up to 10% or $25,000, whichever is less; all other transfers require prior written approval by the Department of Education.

APPENDIX B

Budget Detail Sheet

FISCAL YEAR _____

SALARY AND FRINGE BENEFIT DETAIL

NAME	POSITION TITLE	HOURLY RATE $	NUMBER OF HOURS	TOTAL SALARY $	FRINGE BENEFITS $	HOURLY RATE WITH FRINGE BENEFITS $	SALARY & FRINGE TOTAL $
TOTAL REQUEST							

DETAIL OF CONSULTANT

NAME	POSITION TITLE	HOURLY RATE $	NUMBER OF HOURS	TOTAL COST $
TOTAL REQUEST				$

EXPLANATION OF OTHER EXPENSES (i.e. travel, printing, office supplies, educational materials, and equipment)

EXPENSE CATEGORY	DESCRIPTION	COST