TO: Board of School Directors

THROUGH: Curriculum, Instruction, and Technology Committee

FROM: Robert E. Terrill

RE: Request for Approval of Acellus Math Grant from International Academy of Science

DATE: Wednesday, July 23, 2008

The International Academy of Science has offered to fund half of the cost to implement the Acellus Math Instruction program in all of our high schools.

Basically, Acellus is a computer-based program for interactive mathematics instruction. More specifically, Acellus provides program instruction in fundamental math, Algebra I and II, Geometry, Trigonometry, AP Calculus, and more. A middle school series of courses is almost completed as well.

How Acellus Works: (Taken from Acellus publication)

Students first view a short, high quality video lecture, taught by on of America's master teachers. After the lecture the students are given practice problems or questions to measure their mastery of the material. Based on their answers, Acellus either moves them on to the next lesson or gives them additional instruction through a more in-depth lecture, which explains the concepts at a more fundamental and detailed level. Acellus administers reviews and examinations at the end of each unit and each term.

The learning is interactive. Acellus accomplishes this by monitoring student answers, giving immediate feedback when they struggle with specific concepts. For example, many lessons have special "minilectures" which pop up if the student gives a specific wrong answer.

Attached is an Acellus publication that explains in more detail the program. The Acellus website is www.acellus.com It provides examples of the program and also examples of lessons for various subjects.

Possibilities for Warren County:

First, the Acellus program is being offered by the International Academy of Science at half the price. Also attached are the grant funds being offered. The district costs can be covered by Title I funds with no local funds being used.

Second, high school principals will have the option of scheduling mixed classes of math students at the same time. For instance, in small schools, a student could take AP Calculus, while several other students take Algebra I or Algebra II courses at the same time. All of these students would be supervised by the same teacher during the same period in the same class. The teacher would not have to prepare the lessons, since they are provided by the Acellus master teacher. Acellus also maintains a database of responses, student work, and student test results for the Warren County teacher to manage.

Third, the video lessons provided by Acellus can also be used by the principal and math teachers to acquire effective teaching skills. Some school districts are using Acellus to in-service math teachers instead of teaching students.

Fourth, Acellus can be used to tutor students and provide remedial help.

Attached are the proposed agreements for the Acellus grant.

Confidentiality:

All data that is backed up by Acellus is encrypted and stripped of personal references to protect confidentiality of the students. Acellus compiles data relative to responses of students; however, that data does not identify the student nor the school district. The data are used to improve the programmed instruction.





Acellus

... Changing the way to Learn...

Acellus – America's leading computer-based program for Interactive Mathematics and Reading instruction.







Building a Solid Foundation

The Acellus Education Tool

The American education system continues to find itself confronted with tough, new challenges. With shifting demographics, growing diversity of student populations, shrinking fiscal resources, and increasing pressures to improve scores (both of the students as well as the schools), educators struggle to perform their first mission — to teach the kids — and often find themselves frustrated or overwhelmed.



Acellus is a computer-based learning system that has been developed to help leverage teachers. More than just another computer program, Acellus is an interactive education tool that integrates time-proven methods of teaching with the latest advancements in technology, delivering a complete and effective learning experience. Acellus goes beyond distributing information; it finds and fills the gaps in the students' understanding, helping them build a strong learning foundation.

How Acellus Works

The Acellus learning process is simple, yet effective. First, students view a short, high-quality video lecture, taught by one of America's greatest teachers. After the lecture the students are given practice problems or questions to measure their mastery of the material. Based on their answers, Acellus either moves them on to the next lesson or gives them additional instruction through a more in-depth lecture, which explains the concepts at a more fundamental and detailed level. Acellus administers reviews and examinations at the end of each unit and each term.



Interactive Learning

Acellus makes the learning process truly interactive – almost like having a teacher one-on-one with each student. It accomplishes this by monitoring student answers, giving immediate feedback when they struggle with specific concepts. For example, many lessons have special "mini-lectures" which pop up if the student gives a specific wrong answer. The mini-lecture begins, "I thought you might enter that answer; let me show you why it isn't correct." It then goes on to correct the missed concept.



Acellus tailors itself to the level of the individual students, enabling them to proceed through the lessons at their own pace. Students who quickly comprehend the lessons are able to move ahead, while students who require more information are given the extra help they need without holding back the entire class.

Daily Course Updates - The Science of Learning

A unique feature of the Acellus Learning System is its daily course updates. Acellus is turning the learning process into a science by monitoring every Acellus session, and recording the activities of each student user. User data is collected each day from Acellus Servers around the world and analyzed by researchers at the International Academy of Science.

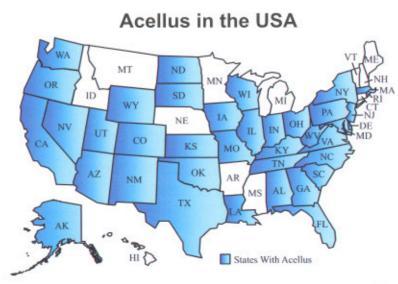
Curriculum developers then use this analyzed statistical data to enhance the Acellus courses – better addressing areas where students are having difficulties. The revised course material is sent out daily, updating Acellus servers worldwide.

Deploying Acellus

Schools and learning centers around the world are adopting the Acellus Learning System to help them achieve their academic goals. Uses for Acellus include: mainstream instruction, parallel and supplemental instruction, remediation, and credit recovery. Acellus' ability to customize to each student's level and pace makes it ideal for challenged as well as gifted students.

Acellus is being used in Alternative Schools, Summer School for GED and Adult Programs, and is allowing schools to offer a wider range of AP courses for their students, better preparing them for college.

Using the Spanish version of Acellus courses, concepts can be taught to ESL students in their native language to accelerate the learning process. English terminology is incorporated to help transition these students into mainstream classes.





A Paradigm Shift in Education

Acellus 3

Acellus is pleased to introduce Acellus 3, the next evolutionary step in the Acellus Learning System.

Recent studies have indicated that people learn best when surrounded with lots of information. The brain is continually seeking knowledge. Acellus 3 is designed on the premise that when students encounter areas in which they need help and take the necessary action to find the answers, they are more apt to retain that knowledge.

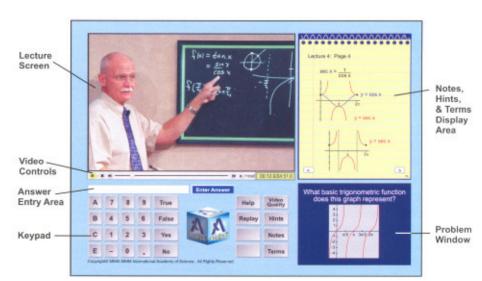
How Acellus 3 Works

Acellus 3 Lessons

As a student begins a course running on Acellus 3, a problem appears. Simultaneously, a video begins to play.

The problem or question creates within the students the need for information. If the students know how to solve it, they can immediately enter the answer. If they do not, they are given the opportunity to discover how to answer it. Students may choose to watch the video lecture being presented or read through online notes to obtain the information necessary to solve the presented problem. In this way, the students search for the information that they need. If they miss something presented, students can "rewind" or advance the video as needed. They can even request additional video instruction, if necessary, by watching available Help videos.

After students enter the required number of correct answers, they are allowed to continue on to the next lecture, or complete watching the video being presented. This enables students to advance quickly through topics they are already familiar with, while at the same time, allowing those who need a little more information, to get the instruction that they require. Acellus students can request a hint providing detailed information on how to work problems.



Sticky Problems

After successfully completing each lecture, students are presented with a series of review problems. These review problems, or "sticky" problems, are problems missed in previous lectures. Students are "stuck" with these problems until they answer them correctly, without requesting help. Acellus keeps a

running tally of the number of sticky problems a student has accumulated. When a sticky problem sequence is about to begin, a short animation is presented informing students that they are about to begin a review sequence and challenging them to reduce their number of sticky problems by answering them correctly. While the students are working sticky problems they have access to the video lectures associated with each of these problems. Sticky problems are a way to give students extra practice working problems that have been difficult for them in the past helping them master memorization and overcome mental blocks.



Reviews

At the end of each Unit, Acellus presents students with a Review to prepare them for the following Exam. During this Review, all of the Acellus features are activated and accessible for student usage. A student may request a video associated with a particular problem at any time during the course of the Review. Students have full access to Notes, Terms, and Hints as well. The Reviews, which are not graded, allow students to take the time to become confident with each type of problem covered by the following Exam. The Review helps cement learning into the students' "long term" memory.

Exams

Acellus provides Unit and Term Exams to test student proficiency in the subject matter covered. During this phase, all Acellus help features are disabled and students must focus on correctly answering the presented problems. Students that pass the Exams are advanced to the following Unit. Students that do not pass are given additional instruction and practice to strengthen their weak areas, allowing them to move forward with confidence.



Curriculum and Courses

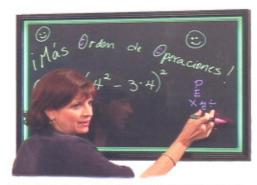
A Flexible Teaching Tool

Acellus' flexibility and powerful feedback system make it an ideal platform for teaching courses on virtually any subject.

The International Academy of Science, curriculum developer for the Acellus Learning System, has developed many courses for Acellus that focus on helping students obtain the knowledge and skills they need in mathematics. Curriculum for these corses are based on the National Council of Teachers of Mathematics (NCTM) Standards.

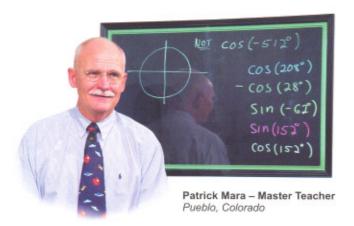
The following are examples of Acellus courses available in Mathematics:

- FUNdamental Mathematics (English and Spanish Versions)
- Algebra 1 (English and Spanish Versions)
- Algebra 2
- Geometry
- Trigonometry
- AP Calculus
- AP Calculus Exam Preparation
- College Entrance Math Preparation (ACT/SAT)



Nancy Arroyo – Spanish Mathematics Teacher El Paso, Texas

New Acellus courses are continually being developed. To obtain a current listing of available courses and course curriculum, please visit www.acellus.com. Samples of Acellus video lectures may be viewed at www.science.edu.



Future plans for Acellus courses include reading, science (physics, chemistry, biology, etc.), history, social studies, and foreign languages.

Award Winning Instructors

Acellus enables students to have the benefit of learning from some of the best teachers in the Nation. The combination of time-proven teaching and the extensive Acellus feedback system create a compelling, interactive learning environment for the student.

Acellus Reading

The International Academy of Science Acellus Development Team is developing an exciting approach to teaching with its Acellus Reading Program – teaching with animated characters.

Acellus Reading allows students to interact through the eyes of Tobler, a young bear with dreams of being a scientist. Tobler learns that before he can achieve his dreams he needs to learn how to read. His sweet, patient friend, Smelly Lips, a wise little pig, teaches Tobler and his mischievous friend Beek, how to read in a step-by-step, non-intimidating way that makes reading fun.





Acellus Reading is based on a program that begins by stimulating phonemic awareness in an effective way. The phonemes (consonants, then vowels) are introduced in clever ways that suggest figuring things out, rather than memorizing, making the environment almost stress-free and leading to the ultimate goal; independent reading.

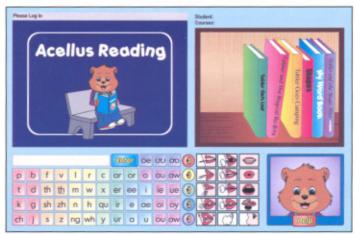
Once the letters and sounds are established, the students are taught how to break apart words into phonemes, resulting in students being able to read and spell the majority of English words. The students also learn "Sight Words", words they need to memorize to be able to read confidently (primarily words that are not phonetically correct i.e. Dolch's or Fry's lists).

With the powerful Acellus delivery system, Acellus Reading can keep track of the words students need to work on as well as the ones they have mastered. This provides each student with the extra attention required precisely where it is needed.

Acellus Reading Console

For Acellus Reading, the Academy has developed an all-new Reading Console to display the videos and problems. Tobler answers questions and offers help when the students get stuck. The new keypad contains the needed phoneme and mouth picture symbols.

Students can also click on books from the shelf to read. If they struggle with one of the words, they can click on that word to get help.



Acellus

The Science of Learning

Acellus

Features of the Acellus Learning System:

- . Self-paced, interactive learning customizes to the levels of challenged and gifted students
- · Video lectures taught by America's greatest teachers
- Additional video instruction and practice problems in a student's particular area of weakness
- · Courses updated daily based on student responses to better address areas where students are having difficulties
- Visual, auditory, and tactile learning styles incorporated
- . In-depth reports on each student's progress; teacher supervision and customization of the learning process

What other Schools are Saying...

Michael Morgan Superintendent - Colfax School District, Colfax, Washington

"We have used the FUNdamental Math course for about one year and are just incorporating the Algebra program. We have found that students who use FUNdamental Math find the program easy to use and grasp the information quickly. Due to the students' increased level of understanding, we offer credit to those who complete the course successfully."

Anne Farrington, Technology Specialist - Indialantic, Florida

"We are so impressed with Acellus! The fact that 83 of the 85 lectures of FUNdamental Mathematics are concepts that we focus on in our schools speaks volumes. And with the daily updates, it is like Acellus is a living, breathing product."

Eddi Hoedebeck, Director of Professional Development & Mentoring Services - Gallup McKinley County Schools, New Mexico

"Acellus is being used at our schools for Gifted Service Delivery, Independent Work, and as an Intervention Support for the students who fall behind. Based on feedback from our reviewers, we purchased additional FUNdamental Math & Algebra 1 servers for district-wide implementation."

Terry Graff, Principal - Jane Macon Middle School, Brunswick, Georgia

"Since we purchased Acellus Math, our test scores have shown a steady increase. Our AYP report shows a 6% increase over the last two years for students passing the math portion of our state test. We have had an impressive 99% passing rate on the state mandated End of Course Test (EOCT) for Algebra. I can attribute much of this success to Acellus Math. It has been well received by the Algebra students and is used extensively in the Algebra classes. I would recommend Acellus Math as another tool to help meet the accountability demands."

Dr. Dusty Delso, Executive Director of Education, Cherokee Nation - Tahlequah, Oklahoma

"This is not like anything we have seen before! Acellus gives students who have given up on math new confidence and even a shot at college."

Zylphia A. Nobles, Math Teacher - Ridgeland Middle School, Ridgeland, South Carolina

"As a teacher, Acellus has allowed me to provide individual tutoring during the regular class period. It allowed me to better understand why a student responded incorrectly and provide additional examples/strategies to ensure comprehension."

Kory McElravy, Math Chair - Wishkah School District, Aberdeen, Washington

"Acellus gives students opportunities for additional problems and instruction at their own pace and with immediate feedback. My students have gained new confidence that they can do well at math and be successful. Now they are more involved during class discussions."





Acellus[®] ...Changing the way to Learn...



Schools and learning centers across the United States are discovering the advantages of the Acellus® Learning System.

Acellus® is Different

Acellus® is more than a computer program. It is an interactive education tool.

Acellus® delivers brief video lessons to students, who then work problems to test their mastery of the concepts. Based on their responses, Acellus® moves them on to the next lesson – or gives them more instruction and more practice. At the end of each unit, Acellus® administers a review and an examination.

Leveraging Teachers

The Acellus® learning process is interactive — almost like having a teacher one-on-one with each student. As the students work the problems, Acellus® gathers data about their learning patterns, then utilizes this information to optimize the learning experience for each individual student.

Gifted, Challenged, and In-between

Since Acellus® enables students to proceed through the lessons at their own pace, students who comprehend the concepts quickly are able to move ahead, while those who require more in-depth explanations are given the extra help they need without holding back the rest of the class. Acellus® is designed to fill the holes in students' understanding at every level – thus building a strong individual learning foundation.

Courses Continually Updated

A unique feature of the Acellus® Learning System is its daily course updates. Acellus® is turning the learning process into a science by monitoring every Acellus® session and recording the activities of each student user. User data is collected daily from Acellus® Servers around the world and analyzed by researchers at the International Academy of Science.

Curriculum developers then use this analyzed statistical data to enhance the Acellus* courses – better addressing areas where students are having difficulties. The revised course material is sent out daily, updating Acellus* servers worldwide.



The constant use of feedback and the responsiveness to each student makes Acellus®a compelling and effective learning tool.

For the on-line Executive Briefing Video visit: www.science.edu/video

What Other Schools are Saying about Acellus®

"We have used the FUNdamental Math course for about one year and are just incorporating the Algebra program. We have found that students who use FUNdamental Math find the program easy to use and grasp the information quickly. Due to the students' increased level of understanding, we offer credit to those who complete the course successfully."

 Michael Morgan, Superintendent Colfax School District, Colfax, Washington

"With the 'No Child Left Behind' Act being in place, we're going to need one-on-one instruction, and I really feel like the Acellus Program is what the country as a whole is going to be looking for."

Tony Dearman, Principal
 Sequoyah High School, Tahlequah, Oklahoma

"Acellus is being used at our schools for Gifted Service Delivery, Independent Work, and as an Intervention Support for the students who fall behind. Based on feedback from our reviewers, we purchased additional FUNdamental Math & Algebra 1 servers for district-wide implementation."

 Eddi Hoedebeck, Dir. of Professional Development Gallup McKinley County Schools, Gallup, New Mexico

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- Terry Graff, Principal Jane Macon Middle School, Brunswick, Georgia

"Our goal is not only to achieve better test scores, but to empower students to fulfill their life's missions."

- Dr. Roger Billings, President, Acellus Labs



Acellus Grants

Order Confirmation

Printable Version

Your Acellus Matching Grant Application has been approved for Youngsville High School. It has been assigned Grant Number 514145. Please use this number for all correspondence.

Grant 514145

Qty	Description	U	nit Price	Ex	t. Amount
1	Acellus IV Server	\$	3995.00	\$	3995.00
1	Annual Support - Daily Updates, Off-Site Backup of Student Data, Advanced Server Replacement, Tech Support	\$	0.00	\$	0.00
	Acellus M	atchi	ing Grant:	\$	-2000.00
		5	Sub-Total:	\$	1995.00
	Edit Items Amount to be paid by School:			s	1995.00

The International Academy of Science is the Sole Source for these items.

The above items will be shipped to the following address: (Items usually ship in 2-4 business days.)

Shipping Address:

Edit Shipping Address

Attn: Robert Terrill Youngsville High School 185 Hospital Drive North Warren, PA 16365

Phone: (814) 723-6900

Billing Address:

Edit Billing Address

Attn: Robert Terrill - Superientendent Warren County School District 185 Hospital Drive North Warren, PA 16365

Phone: (814) 723-6900 robert.terrill@wcsdpa.org

Please confirm the accuracy of the information given above – and make any necessary corrections. An invoice for this order will be sent to this address.

I hereby approve this order for the Acellus Learning System and represent that I have the authority to make this commitment on behalf of Warren County School District.

Required fields:

Approved

By:

Title:

Email:

Optional:

Please email an extra confirmation copy of this

Approve

Decline

Printable Version

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^{*} Note: Un-used licenses are automatically carried over to the next year.



Acellus Grants

Order Confirmation

Printable Version

Your Acellus Matching Grant Application has been approved for Warren Area High School. It has been assigned Grant Number 514146. Please use this number for all correspondence.

Grant 514146

Qty	Description	U	nit Price	Ex	t. Amount
1	Acellus IV Server	\$	3995.00	\$	3995.00
1	Annual Support - Daily Updates, Off-Site Backup of Student Data, Advanced Server Replacement, Tech Support	S	0.00	\$	0.00
	Acellus Matching Grant: Sub-Total:				-2000.00
					1995.00
	Edit Items Amount to be paid by School:			S	1995.00

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Shipping Address:

Edit Shipping Address

Attn: Robert Terrill Warren Area High School 185 Hospital Drive North Warren, PA 16365

Phone: (814) 723-6900

Billing Address:

Edit Billing Address

Attn: Robert Terrill - Superientendent Warren County School District 185 Hospital Drive North Warren, PA 16365

Phone: (814) 723-6900 robert.terrill@wcsdpa.org

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I hereby approve this order for the Acellus Learning System and represent that I have the authority to make this commitment on behalf of Warren County School District.

Required fields:

Approved

By:

Title:

Email:

Optional:

Please email an extra confirmation copy of this

Approve

Decline

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Acellus Grants

Order Confirmation

Printable Version

Your Acellus Matching Grant Application has been approved for Eisenhower Middle / High School. It has been assigned Grant Number 514143. Please use this number for all correspondence.

Grant 514143

Qty	Description	U	nit Price	Ex	t. Amount
1	Acellus IV Server	\$	3995.00	\$	3995.00
1	Annual Support - Daily Updates, Off-Site Backup of Student Data, Advanced Server Replacement, Tech Support	\$	0.00	\$	0.00
	Acellus Matching Grant: Sub-Total: Edit Items Amount to be paid by School:			\$	-2000.00
				\$	1995.00
				\$	1995.00

The International Academy of Science is the Sole Source for these items.

The above items will be shipped to the following address: (Items usually ship in 2-4 business days.)

Shipping Address: Edit Shipping Address

Attn: Robert Terrill Eisenhower Middle / High School 185 Hospital Dr North Warren, PA 16365 Phone: (814) 723-6900

Billing Address:

Approve

Edit Billing Address

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Attn: Robert Terrill - Superientendent Warren County School District 185 Hospital Dr North Warren, PA 16365 Phone: (814) 723-6900 robert.terrill@wcsdpa.org

Please confirm the accuracy of the information given above – and make any necessary corrections. An invoice for this order will be sent to this address.

I hereby approve this order for the Acellus Learning System and represent that I have the authority to make this commitment on behalf of Warren County School District.

Required fields:			
Approved By:	Title:	Email:	
Optional:			
Please email an extra	confirmation copy of this form to:		

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Acellus Grants

Order Confirmation

Printable Version

Your Acellus Matching Grant Application has been approved for Sheffield Area Middle / High School. It has been assigned Grant Number 514144. Please use this number for all correspondence.

Grant 514144

Qty	Description	U	nit Price	Ex	t. Amount
1	Acellus IV Server	s	3995.00	\$	3995.00
1	Annual Support - Daily Updates, Off-Site Backup of Student Data, Advanced Server Replacement, Tech Support	s	0.00	\$	0.00
	Acellus Matching Grant:				-2000.00
Sub-Total:			\$	1995.00	
	Edit Items Amount to be paid by School:			\$	1995.00

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Shipping Address: Edit Shipping Address

Attn: Robert Terrill Sheffield Area Middle / High School 185 Hospital Drive North Warren, PA 16365

Phone: (814) 723-6900

Billing Address:

Edit Billing Address

Attn: Robert Terrill - Superientendent Warren County School District 185 Hospital Dr North Warren, PA 16365

Phone: (814) 723-6900 robert.terrill@wcsdpa.org

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Required fields: Approved			
By:	Title:	Email:	
Optional:			
Please email an extra co	infirmation copy of this		

form to:

Approve Decline Printable Version

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