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Introduction Date	10-10-12
Enactment Number	122515
Enactment Date	10/10/12
By	o.k.



OAKLAND UNIFIED SCHOOL DISTRICT

Community Schools, Thriving Students

OAKLAND UNIFIED SCHOOL DISTRICT  
Office of the Board of Education

October 10, 2012

To: Board of Education

From: Tony Smith, Superintendent  
Maria Santos, Deputy Superintendent of Instruction, Leadership & Equity-in-Action  
Custiss Sarikey, Associate Superintendent for Family, Schools, and Community Partnerships  
Julie McCalmont, Coordinator, Summer Learning Programs

Subject: District Submitting Grant Proposal

**ACTION REQUESTED:**

Approval and support by the Board of Education of District applicant submitting grant proposal for OUSD schools for fiscal years 2011-2013 to accept same, if granted, in whole or in part, pursuant to the terms and conditions thereof and to submit amendments thereto, for the grant year, if any.

**BACKGROUND:**

Grant proposal for OUSD schools for the 2011-2013 fiscal years were submitted for funding as indicated in the chart below. The Grant Face Sheet and grant application packets are attached.

File I.D #	Backup Document Included	Type	Recipient	Grant's Purpose	Time Period	Funding Source	Grant Amount
12-2575	Yes	Grant	Oakland Unified School District Summer Learning Program	To provide support for the 2012 Summer Session: Engineering-themed Math Support Program	6/1/12-9/30/12	ConnectEd: The California Center for College and Career through the support of the Stephen D. Bechtel Jr. Foundation	\$36,000.00

**DISCUSSION:**

The district created a Grant Face sheet process to:

- Review proposed grant projects at OUSD sites and assess their contribution to sustained student achievement
- Identify OUSD resources required for program success

OUSD received a Grant Face Sheet and a completed grant application for the program listed in the chart by the school.

**FISCAL IMPACT:**

The total amount of grants will be provided to OUSD schools from the funders.

- Grants valued at: \$36,000.00

**RECOMMENDATION:**

Approval and support by the Board of Education of District applicant submitting a grant proposal for OUSD schools for fiscal years 2011-2013 to accept same, if granted, in whole or in part, pursuant to the terms and conditions thereof and to submit amendments thereto, for the grant year, if any.

**ATTACHMENTS:**

OUSD Grants Management Face Sheet

Grant Letter, Connect Ed, The California Center for College and Career

Grant Agreement and Conditions

Attachment A, Budget for Summer Math Program

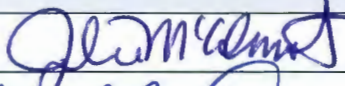
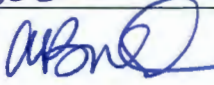
Project Description

OUSD Grants Management Face Sheet

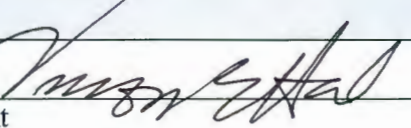
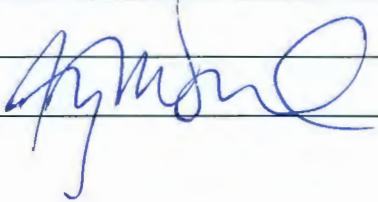
<b>Title of Grant: 2012 Summer Session: Engineering-themed Math Support Program</b>	<b>Funding Cycle Dates: 06/01/2012 – 09/30/2012</b>
<b>Grant's Fiscal Agent:</b> Carl Taibl, CFO 2150 Shattuck Ave, Suite 1200 Berkeley, CA 94704 (510)-849-4945 ctaibl@ConnectEdCalifornia.org	<b>Grant Amount for Full Funding Cycle: \$36,000</b>
<b>Funding Agency: Connect Ed</b>	<b>Grant Focus: Math and Engineering Enrichment</b>
<b>List all School(s) or Department(s) to be Served:</b> Frick Middle School, West Oakland Middle School, Madison Middle School	

<b>Information Needed</b>	<b>School or Department Response</b>
How will this grant contribute to sustained student achievement or academic standards?	4-week, project-based, engineering-themed math support program for rising 6 <sup>th</sup> and 7 <sup>th</sup> graders throughout Oakland. The summer program will run three hours per day, five days a week, expanding the currently planned four-hour summer morning program at each school site to a full day opportunity. The program will also provide math teachers with professional development around curriculum integration and pedagogy aligned with the new Common Core Standards.
How will this grant be evaluated for impact upon student achievement?  (Customized data design and technical support are provided at 1% of the grant award or at a negotiated fee for a community-based fiscal agent who is not including OUSD's indirect rate of 4.75% in the budget. The 1% or negotiated data fee will be charged according to an Agreement for Grant Administration Related Services payment schedule. This fee should be included in the grant's budget for evaluation.)	ConnectEd will contract with an independent evaluator to conduct teacher interviews as well as analysis of teacher interviews. The summer program and extended-day program will each be evaluated, and a final evaluation report on the impact of both programs will be generated at the completion of the project.
Does the grant require any resources from the school(s) or district? If so, describe.	Facilities; Coordination by Summer Learning Dept.
Are services being supported by an OUSD funded grant or by a contractor paid through an OUSD contract or MOU?  (If yes, include the district's indirect rate of 4.25% for all OUSD site services in the grant's budget for administrative support, evaluation data, or indirect services.)	NO
Will the proposed program take students out of the classroom for any portion of the school day? (OUSD reserves the right to limit service access to students during the school day to ensure academic attendance continuity.)	NO
Who is the contact managing and assuring grant compliance? (Include contact's name, address, phone number, email address.)	Julie McCalmont, Coordinator of Summer Learning Programs Family, School & Community Partnerships Dept. 746 Grand Ave. Oakland, CA 94610 (510) 639-3333 Julie.mccalmont@ousd.k12.ca.us

**Applicant Obtained Approval Signatures:**

Entity	Name/s	Signature/s	Date
Principal	Julie McCalmont		8-22-12
Department Head (e.g. for school day programs or for extended day and student support activities)	Andres Bustamante		8-22-12

**Grant Office Obtained Approval Signatures:**

Entity	Name/s	Signature/s	Date
Fiscal Officer	Vernon Hal		
Superintendent	Tony Smith		9/26/12



**ConnectEd**

The California Center for College and Career

Transforming today's education  
for tomorrow's economy

July 9, 2012

Phil Tucher  
4521 Webster Street  
Oakland, CA 94609

Dear Mr. Tucher:

I am very pleased to inform you that ConnectEd: The California Center for College and Career, through the support of the Stephen D. Bechtel, Jr. Foundation, has approved a \$36,000 Grant to Oakland Unified School District to provide support in the form of a Grant for the 2012 Summer Session: Engineering-themed Math Support Program.

This grant is subject to the terms outlined in the enclosed Grant Agreement. After you have reviewed these documents, please have Superintendent Smith sign both original documents where indicated and return both copies to my attention.

**Please also fill out the W-9 and return it with the Grant Agreement.**

We are delighted to offer this grant to Oakland Unified School District and look forward to continuing our work with you. If you have any questions, please feel free to contact me by telephone at (510) 665-8277, or by email at [kleshner@ConnectEdCalifornia.org](mailto:kleshner@ConnectEdCalifornia.org).

Sincerely,

Karri Leshner  
Project Associate

Enclosures

**BOARD OF DIRECTORS**

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*CEO, NewSchools Venture Fund;  
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*Chief Administrative Officer,  
WestEd*

**Gary Hoachlander, Ex Officio**  
*President of ConnectEd*

ConnectEd: The California Center for College and Career

GRANT AGREEMENT AND CONDITIONS

This Grant from ConnectEd: The California Center for College and Career (ConnectEd), through the support of the S.D. Bechtel, Jr. Foundation (Foundation), is for the purposes described below and is subject to your acceptance of the conditions specified below. This Agreement will not be effective until signed by a properly authorized representative of your organization, and a signed original is received by ConnectEd.

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**Grant Number:** 12-05

**Grantee:** Oakland Unified School District

**Grant Amount:** \$ 36,000

**Time Period:** June 1, 2012 – September 30, 2012

**Project Title:** 2012 Summer Session: Engineering-themed Math Support Program

**Goal:** Deliver an afternoon summer engineering/math program using the ConnectEd math support curriculum for up to 120 students at three middle schools in the Oakland Unified School District.

**Objectives:**

1. Recruit school sites, teachers, and students for the summer afternoon engineering program.
2. Deliver a four-week afternoon program at three school sites, two classes per site, with up to 20 students per class.
3. Collaborate with ConnectEd to deliver pre- and post-tests to students on content knowledge.

**Conditions:** Expenditure Responsibility

## STATEMENT OF WORK

The Grantee, as an independent organization and not as an agent of ConnectEd, will furnish necessary personnel, materials, services, equipment, and facilities, and all other items necessary to accomplish all tasks specified in the Objectives noted above. The Grantee's budget (Attachment A) is hereby incorporated, made a part of this grant agreement, and is deemed to state the activities and budget to be followed in carrying out this agreement.

## SCHEDULE OF DELIVERABLES TIED TO GRANT INSTALLMENTS

Deliverable Due Date	Deliverable Required	Payment Date	Amount
7/31/12	Signed Grant Agreement	8/15/12	\$ 36,000
10/31/12	Final Financial Report	N/A	\$N/A

Please refer to the enclosed *Grantee Reporting Guidelines* for details on reporting to ConnectEd. Payments will be sent directly from ConnectEd's Grants Administration office.

## GRANTEE'S FINANCIAL RESPONSIBILITIES

Grantee is expected to maintain complete and accurate financial records of revenues and expenditures relating to the grant for at least four (4) years after completion of the grant. In the event that ConnectEd is audited by any government agency, it may be necessary, in rare instances, for ConnectEd to examine, audit, or have audited the records of Grantee insofar as they relate to activities supported by this grant. Any expenses related to such activities will be borne by ConnectEd.

## EXPENDITURE OF GRANT FUNDS

This grant contains an "expenditure responsibility" requirement as defined in Section 4945(d)(4) of the IRS Code. Grantee agrees to submit to ConnectEd full and complete reports with respect to the expenditure of the funds granted by ConnectEd in accordance with the reporting schedule set forth herein.

Grantee shall not use any portion of the grant to (a) carry on propaganda or otherwise attempt to influence specific legislation; (b) influence the outcome of any specific public election; (c) make any

grant that does not comply with the requirements of Section 4945(d)(3) or (4) of the Internal Revenue Code (IRC); (d) undertake any activity for any purpose other than one specified in Section 170(c)(2)(B) of the IRC; or (e) induce or encourage violations of law or public policy, to cause any private inurement or improper private benefit to occur, or to take any other action inconsistent with Section 501(c)(3) of the IRC. Grantee shall not use any portion of the grant funds to support any form of violent political activity, terrorists, or terrorist organizations.

Please be advised that according to ConnectEd policy, grant funds may not be used to cover any indirect costs.

The grant is for the purpose(s) stated in this agreement. Grant funds may be expended only in accordance with the terms set forth herein. Grant funds may not be expended for any other purpose without prior written approval by ConnectEd. Grantee shall repay to ConnectEd any portion of the grant funds that is not spent or committed for the purposes stated in this agreement. Permission to make any major change (line items added or deleted, or transfers among line items greater than 20 percent of the approved line item amount) to the approved budget (Attachment A) must be requested in writing, and approved by ConnectEd in advance of the implementation of the change. ConnectEd requests written notification of any changes to key personnel during the term of the grant.

#### USE OF SUBGRANTEES

With regard to the selection of any subgrantee necessary to carry out the purposes of the grant, ConnectEd retains the right to approve subgrantees, in advance. Any funds regranted to public agencies, or agencies established by the federal, state or a local government, should supplement and not supplant government support.

#### PUBLICITY, PUBLICATIONS, AND COMMUNICATION WITH THE MEDIA

Should Grantee choose to acknowledge ConnectEd's support of its organization and would like to announce the grant via the news media or other communication vehicles or include ConnectEd and the Foundation's names on printed and visual materials produced with their support, Grantee should contact ConnectEd's Director of Communications for specific instructions and assistance.

Grantee shall not release any public announcements or statements to the media regarding the Stephen D. Bechtel, Jr. Foundation, any member of the Bechtel family's, or the Bechtel Group's affiliation with or contribution to the Project without the prior written consent of the Foundation. Grantee shall not make any commitments for permanent recognition of any of the foregoing without the prior written consent of the Foundation.

#### ANTI-DISCRIMINATION

Grantee agrees that, in the performance of this Agreement, it will not unlawfully discriminate in its employment practices, volunteer opportunities, or the delivery of programs or services, on the basis



of race, color, religion, gender, national origin, ancestry, age, medical condition, handicap, veteran status, marital status, sexual orientation, or any other characteristic protected by law.

#### INDEMNIFICATION

In the event that a claim of any kind is asserted against the Grantee or ConnectEd related to or arising from the project funded by the Grant and a proceeding is brought against ConnectEd by reason of such claim, the Grantee, upon written notice from ConnectEd, shall, at the Grantee's expense, resist or defend such action or proceeding, at no cost to ConnectEd, by counsel approved by ConnectEd in writing.

Grantee hereby agrees, to the fullest extent permitted by law, to defend, indemnify, and hold harmless ConnectEd, its officers, directors, employees, and agents, from and against any and all claims, liabilities, losses, and expenses (including reasonable attorneys' fees) directly, indirectly, wholly, or partially arising from or in connection with any act or omission by Grantee, its employees or agents, in applying for or accepting the Grant, in expending or applying the Grant funds or in carrying out any project or program supported by the Grant, except to the extent that such claims, liabilities, losses, and expenses arise from or in connection with any act or omission by ConnectEd, its officers, directors, employees, or agents.

#### TERMINATION

ConnectEd, at its sole option, may terminate this agreement or withhold payments, or both at any time if, in ConnectEd's judgment: a) ConnectEd is not satisfied with the quality of the Grantee's progress toward achieving the project goals, objectives, and statement of work; b) ConnectEd is of the opinion that the Grantee is incapable of satisfactorily completing the project or has ceased to be an appropriate means of accomplishing the purposes of the grant; c) the Grantee dissolves or fails to operate; or d) the Grantee materially fails to comply with the terms and conditions of this agreement. If termination occurs prior to the scheduled end date, the Grantee shall, upon request by ConnectEd, provide to ConnectEd a full accounting of the receipt and disbursement of funds and expenditures incurred under the Grant as of the effective date of termination. Within sixty (60) days after written request by ConnectEd, the Grantee shall remit all Grant funds unexpended as of the effective date of termination.

#### LIMITATION

This Agreement contains the entire agreement between the parties with respect to the Grant and supersedes any previous oral or written understandings or agreements. It is expressly understood that by making this Grant, ConnectEd has no obligation to provide other or additional support to the Grantee for purposes of this project or any other purposes.

ACCEPTANCE OF TERMS

On behalf of ConnectEd: The California Center for College and Career, I extend every good wish for the success of this project.

By: \_\_\_\_\_  
Signature of Authorized Officer, Director, or Trustee

Name: Carl Taibl

Title: Chief Financial Officer

Date: \_\_\_\_\_

I acknowledge that the Grantee has received and reviewed this document. The above terms and conditions are hereby accepted and agreed to as of the date specified.

Accepted on behalf of Oakland Unified School District

By: Anthony Smith for T. S.  
Signature of Authorized Officer, Director, or Trustee

Name: Anthony Smith, Ph.D.

Title: Superintendent

Date: \_\_\_\_\_

File ID Number: 12-2575  
Introduction Date: 10/10/12  
Enactment Number: 12-2575  
Enactment Date: 10/10/12  
By: at

OAKLAND UNIFIED SCHOOL DISTRICT  
Office of General Counsel  
APPROVED FOR FORM & SUBSTANCE  
By: [Signature]  
Attorney at Law

[Signature]  
Jody London  
President, Board of Education

10/10/12

[Signature]  
Edgar Rakestraw, Jr., Secretary  
Board of Education

10/10/12

ATTACHMENT A

**Oakland Unified School District**  
**ConnectEd Grant for After-School Math Support Expansion funded by Bechtel**  
**Budget for Summer Math Program**  
 June 1, 2012 to August 31, 2012

Other Direct Costs					
Facilities and Overhead	1	12,000.00	Site	3	\$ 36,000.00
<b>Total OUSD Grant</b>					<b>\$ 36,000.00</b>

Paid Directly by ConnectEd	No.	Rate	Unit	No. of Units	Grant Budget
<b>Teacher PD - Summer Program</b>					
	No.	Rate	Unit	No. of Units	Grant Budget
Pete Knight	1	28.00	Hour	14	\$ 392.00
Alonna Haulcy	1	28.00	Hour	14	\$ 392.00
Tyler Reese	1	28.00	Hour	14	\$ 392.00
Ryan O'Neill	1	28.00	Hour	14	\$ 392.00
Math Teachers - Common Core/FAL PD	4	28.00	Hour	16	\$ 1,792.00
Math Teachers - Curriculum PD	4	28.00	Hour	18	\$ 2,016.00
Teacher Assistants - PD	6	28.00	Hour	14	\$ 2,352.00
<b>Subtotal</b>					<b>\$ 7,728.00</b>
<b>Summer Program Delivery</b>					
Pete Knight	1	73.02	Hour	45	\$ 3,285.90
Alonna Haulcy	1	42.77	Hour	45	\$ 1,924.65
Tyler Reese	1	42.43	Hour	45	\$ 1,909.35
Ryan O'Neill	1	42.43	Hour	45	\$ 1,909.35
Teacher Assistants - Field Trips	6	35.00	Hour	24	\$ 5,040.00
Teachers' Assistants - Instruction	6	35.00	Hour	36	\$ 7,560.00
Jovan Hicks (Stipend)					\$ 3,000.00
Malia Robinson (Stipend)					\$ 3,000.00
Afternoon Snack	120	2.00	Student	20	\$ 4,800.00
<b>Total Paid Directly by ConnectEd</b>					<b>\$ 47,885.25</b>

## **PROJECT DESCRIPTION**

This proposal requests grant funding from the S. D. Bechtel, Jr. Foundation to expand the currently funded middle school mathematics support pilot program that is underway in the Oakland Unified School District (OUSD) to include a summer session and additional extended-day programs during the 2012-2013 school year. The project will proceed in two parts:

*Part I. Implement summer session engineering-themed math support programs in the three OUSD regional districts*

Using the curriculum currently being piloted at West Oakland Middle School's extended-day program, the summer sessions will provide a 4-week, project-based, engineering-themed math support program for rising 6th and 7th graders at one site in each of the OUSD's three regional districts. West Oakland Middle School will continue as one of the three sites for the expansion grant. OUSD will select the two additional sites from the middle schools that are beginning to commit to a focus on science, technology, engineering, and math (STEM). Each site will offer two classes. The summer program will run three hours per day, five days a week, expanding the currently planned four-hour summer morning program at each school site to a full day opportunity. Morning English teachers and afternoon math teachers will collaborate to provide integrated connections between the afternoon math and morning literacy instruction. As described in the original pilot proposal that is currently being implemented in West Oakland, the curriculum entails technology- and engineering-focused projects that meet California Content Standards and the new Common Core State Standards related to pre-algebra and algebra.

Combining project-based math and career exposure is a through-line in ConnectEd's approach to student support curricula. For example, as part of the five-year, federally funded Investing in Innovation (i3) project that the Bechtel Foundation is also supporting, R. T. Fisher Educational Enterprises, Inc. developed a college awareness curriculum that is aligned with the engineering-themed math projects. In this project proposed for OUSD, another element of the math support curriculum will be incorporating college/career awareness activities into the larger summer program. Students will spend the equivalent of one day per week on college and career exploration activities and related field trips.

The final element of the summer session will be to provide the math teachers with professional development (PD) around curriculum integration and pedagogy aligned with the new Common Core State Standards, using the engineering-themed

mathematics curriculum as a context and model. Summer math teachers will attend 1.5 hours of PD each morning, prior to the start of their afternoon instructional sessions. This PD would be designed and delivered in collaboration with OUSD's larger efforts to move toward adoption of the Common Core Standards.

OUSD (in a process managed by Phil Tucher, OUSD K-12 Mathematics Manager) will recruit credentialed math teachers from each of the three sites to teach in the afternoon math program, assisted by a teaching assistant (ideally recruited from a pool of intern and pre-intern teachers participating in the *Teach Tomorrow in Oakland Program*). Activities to support college and engineering career awareness, such as field trips and guest speakers, would be provided by R.T. Fisher Educational Enterprises, Inc. During these activities, teachers would collaborate in professional development.

#### *Part II. Expand After-School Engineering Clubs to the three OUSD Regional Districts*

For the 2012-2013 school year, the 14-week Extended-Day (after-school) mathematics program (called Engineering Clubs) currently being piloted at West Oakland Middle School will be expanded to include one site at each of the three regional districts, and be extended to a 28-week, year-long program. These three sites will be the same schools that hosted the summer program. Since we anticipate fewer students will be able to attend an after school program at the middle school level than a summer program, there is only one class per site being proposed for the extended-day program. Attendance will be open to all students, but the math teachers from each school site will target recruitment for club participation toward students who were unable to attend the summer session and who are in particular need of additional math instructional support. However, the extended-day program will use different projects than the summer program, so students who wish to continue on though the school year will be welcome to participate.

Each club will meet for 90 minutes two times each week beginning with a fifteen-minute informal snack period, followed by 75 minutes of interactive, team-based engineering and technology project work. ConnectEd will work with OUSD to provide credentialed mathematics teachers to staff the clubs. Ideally, one of the teachers from the summer program will continue for the extended-day program. The summer program PD will include training on all of the curriculum units (summer and school-year), so relatively little additional PD during the school year will be necessary. ConnectEd staff will also be available for technical assistance during the school year. All curriculum materials and snacks for the duration of the project will be provided by ConnectEd.

For each part of the project, an external consultant, Dr. Nada Rayyes of Berkeley Policy Associates, will conduct an evaluation for improvement in student learning. A pre- and post-test will be administered to students who attend the summer session and participate in the extended-day program. The evaluation instrument might be a modified version of the UC Mathematics Diagnostic Testing Project's tests for algebra and pre-algebra readiness. This instrument will combine selected questions from both tests that are aligned to topics covered in the summer and extended-day curriculum. The external evaluator will be responsible for final selection of the evaluation instrument(s). ConnectEd, in partnership with OUSD teachers and leaders, will synthesize evaluation findings from each part of the project to inform school site decisions and improve the effectiveness of academic intervention and acceleration of student learning.

Target dates for these activities are included in the details section below.

### **Program Design Details**

- Six summer session classes will be taught by credentialed mathematics teachers recruited by OUSD, and trained by ConnectEd.
  - Teacher recruitment has already begun, will be ongoing throughout spring 2012, and is funded under the Foundation's current Pilot Grant.
  - Teacher training will take place in June 2012.
  - The math classes will be afternoon extensions of OUSD's existing morning programs at each of the 3 sites, meeting for an additional 3 hours per day, 5 days a week during a 4-week summer school session.
  - The anticipated number of participating students will be 120: 20 per class drawn from rising 6th and 7th graders.
  - Summer session instruction will be supported by a teaching assistant at each site.
  - College and engineering career awareness field trips provided by R.T. Fisher Educational Enterprises, Inc. will be integrated into the program.
  - Summer session teachers will meet together an additional 1.5 hours per day prior to the afternoon classes for ongoing professional development and coaching.
  
- Three Extended-Day (after-school) classes (one at each of 3 sites) will be taught by credentialed mathematics teachers recruited by OUSD, and trained by ConnectEd.
  - Recruitment would begin as soon as this project is funded, and training will take place in September 2012.

- The anticipated number of participating students will be 60, drawn from students in grades 6 and 7.
  - The club will meet twice each week for 1.5 hours per session at each of the 3 identified sites.
  - The duration of the Club will be from October 2012 through May 2013, for a total of 28 weeks.
  - At the beginning of each Club meeting, students will be provided with a nutritious snack, such as peanut butter and jelly sandwiches, fruit, and milk.
- ConnectEd will provide the project-based mathematics curricula for both pre-algebra and algebra and will provide ongoing coaching and consultation with the teachers.
  - Oakland Unified school administrators and mathematics teachers will determine which students will be invited to enroll in the summer and extended-day programs.
  - Evaluation will be conducted independently by Dr. Nada Rayyes, a senior research analyst at Berkeley Policy Associates (BPA). Given the limited budget available for evaluation in this project, BPA has agreed to have Dr. Rayyes serve as an independent consultant to this project at a substantially reduced overhead rate.

### **Organizational Capacity**

**ConnectEd: The California Center for College and Career** was established in 2006 as a California 501(c) (3) non-profit organization through a grant from The James Irvine Foundation. ConnectEd’s mission is to support development of *Linked Learning* pathways by which California’s young people can complete high school, enroll in postsecondary education, and embark on lasting success in the world of work, civic affairs, and family life. *Linked Learning* is a reform model that transforms students’ high school experience by bringing together strong academics, demanding technical education, and real world experience to help students gain an advantage in high school, postsecondary education, and careers. With *Linked Learning*, students follow industry-themed pathways such as Engineering, Information Technology, and Health Sciences.

Over the past four years, ConnectEd has supported The National Academy Foundation (NAF) in building a national network of high school Academies of Engineering (AOEs).

<sup>1</sup> All of the existing

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<sup>1</sup> NAF Academies of Engineering were created through a partnership involving the National Academy Foundation, the National Action Council for Minorities in Engineering, and Project Lead the Way.

29 AOE's are located in inner-city or rural school districts that serve large proportions of low-income, African-American, and Latino students. Twenty additional AOE's were added to the network in September 2010, and the goal of this effort is to create a total of 120 AOE's by 2015. At the outset of this project, ConnectEd advised leaders at NAF that a strong, STEM-themed, project-based pre-algebra and algebra support curriculum would be essential for students from these AOE's to be successful in four years of a challenging engineering curriculum (provided by Project Lead the Way) and four years of college-preparatory mathematics. The project-based pre-algebra and algebra curriculum that will be used in this project is the same one that ConnectEd designed for the AOE effort. This curriculum is currently being used in a five-year, federally funded Investing in Innovation (i3) project, STEM Learning Opportunities Providing Equity (SLOPE). The SLOPE project, which is also being supported by the Foundation, includes a random control trial evaluation of the curriculum in nine California school districts. In addition to providing the mathematics curriculum, ConnectEd is also conducting all teacher professional development for the i3 project. We are also currently beginning a project using elements of this curriculum in afternoon Engineering Clubs at Mt. Diablo, Richmond, and Antioch High Schools. In that project, ConnectEd is providing the mathematics curriculum and conducting all teacher professional development as well.

R.T. Fisher Educational Enterprises, Inc. (RTF) will provide logistical support, including additional chaperones for three college and career awareness field trips, and assist ConnectEd in identifying speakers for in-class career awareness activities. RTF has previously provided career awareness services to four Bay Area school districts, including OUSD. Since 2003, they have managed summer educational programs for the University of California's Office of the President, California State University East Bay, and the California State University's Chancellor's Office. All of these programs have included a weekly field trip component.

The Oakland Unified School District is also a key partner in this project and has committed to supporting this work (See the support letter included in this application.). District personnel, with leadership from Mr. Phil Tucher, will be responsible for

- Collaborating with ConnectEd to advertise the programs to teachers, parents, and students;
- Identifying/confirming school locations (in addition to West Oakland Middle School) for both the summer and 2012-2013 academic year extended-day programs;
- Recruiting teachers for the summer and extended-day programs;
- Identifying students who will be invited to participate in the programs; and



- Partnering with ConnectEd to develop strategies for capitalizing on this work to achieve further improvements in students' mathematics achievement;

## **OUTCOMES AND EVALUATION**

In order to evaluate the success of the curriculum, ConnectEd plans to contract with an independent evaluator, Dr. Nada Rayyes, to examine the effects of both the summer math program and the after-school program implemented over the 2012-2013 school year.

The evaluation of the math curriculum will incorporate two methods: analysis of student test scores and teacher interviews. The curriculum will be implemented in a 4-week summer camp program this summer (2012), and in three Oakland middle schools next year (2012-2013) as part of an after school program. The summer program and the extended-day program will each be evaluated, and a final evaluation report on the impact of both programs will be generated at the completion of the project. A preliminary report on the summer program will be available in the fall.

### **Test scores:**

The instrument that will be used for the pre-/post- intervention test will be created using items from the UC/CSU Mathematics Diagnostic Testing Project (MDTP), a validated instrument that is used widely throughout California. Teachers will administer the test to students and will provide scores to the evaluator using a standardized template (most likely Microsoft Excel). Dr. Rayyes will then export the scores into a data analysis software package (such as Stata or SPSS). Test scores will be statistically analyzed to determine if student skills and knowledge have significantly improved over the course of the intervention.

The evaluation's central research question is: Did students' knowledge and skills improve overall? By incorporating student demographic data, the evaluation will also examine sub-group effects. For example, the evaluator will explore whether outcomes are related to student characteristics such as gender, grade level, or race/ethnicity. Furthermore, subject to sample size limitations, statistical analyses will examine possible differences in student performance on certain types of items (e.g., Number Sense, Mathematical Reasoning, Algebra and functions).

Summer program:

- The assessment instrument will be administered to students by their teachers in June 2012 (pre-intervention measure). Approximately 120 students are expected to participate in the summer program.
- Test scores will then be collected after the summer program has concluded in August 2012 (post-intervention measure).
- The evaluator will produce a brief summary report for ConnectEd on the results of the summer program data in September 2012.

Fall/Spring program:

- The assessment instrument will be administered to students in the fall of 2012 (pre-intervention measure). Approximately 60 students are expected to participate in the after school program during the 2012-2013 academic year.
- The post-intervention test administration will take place at the completion of the extended-day program in May 2013 and test scores will be shared with the evaluator for analysis.

**Teacher interviews:**

Approximately nine teachers will be implementing the math curriculum during the fall and spring. Dr. Rayyes will interview these teachers as part of the evaluation study to gather information about implementation issues and provide some context for interpreting test scores. Possible interview questions may include:

- What components of the curriculum have been most successful in addressing student needs? Why or how? [provide examples]
  - o What specific standards does this curriculum help to best address (e.g. Number Sense, Mathematical Reasoning)?
- What components have been least successful? Why or how? [provide examples]
  - o What specific standards are most challenging to address using this curriculum (e.g. Number Sense, Mathematical Reasoning)?
- How is this curriculum similar to other strategies or curricula you normally use to teach math? How is it different? [provide specific examples]
- What would you change about the math curriculum?
- What conditions are necessary for implementing this curriculum successfully?  
*[Possible probes: ongoing support from ConnectEd, strong school leadership,*

*parent involvement, etc.]* What do you think it would take to replicate this model in other schools?

Teachers will be interviewed by phone by Dr. Rayyes. With permission of the respondent, interviews will be audio recorded to ensure accuracy. Interview notes will be written up and all interview data will be analyzed across individuals and reported in the aggregate. Individual respondents will not be identified, but common themes and issues (e.g., implementation challenges) will be described. Ensuring confidentiality among respondents will allow teachers to provide honest responses and valuable information.

Evaluation results, specifically analysis of test scores and teacher interview data, will be compiled into a final report in spring of 2013. This final report will be submitted to ConnectEd by Dr. Rayyes at the end of June 2013.

### **Strategies for Mitigating Risks**

There are several areas of potential risk to achieving the intended goals of this study. These include threats to the recruitment of teacher and students for participation in the program, and to the fidelity of the curriculum intervention. In the table below, we summarize these threats and the mitigation strategies that have been included in our project design and implementation strategy and will be put in place.

Potential Threats to Achieving Project Outcomes	Mitigation Strategies
Insufficient numbers of students sign-up for the summer and extended-day programs.	<ul style="list-style-type: none"> <li>• The summer math program will be an extension to an existing summer program supported by OUSD that targets students who are performing below or approaching benchmark. Students will be identified and recruited through OUSD’s standard procedure.</li> <li>• The summer math program will expand the existing opportunity to a full day program, which should be attractive to parents.</li> <li>• The extended-day program will be offered at schools that are committing to a STEM focus.</li> </ul>
Insufficient numbers of teachers are	<ul style="list-style-type: none"> <li>• Close collaboration with OUSD to</li> </ul>

Potential Threats to Achieving Project Outcomes	Mitigation Strategies
recruited to participate in summer program.	pre-identify sites with high interest by teachers.
Teachers drop out of the program when the school year begins.	<ul style="list-style-type: none"> <li>Recruiting for summer program teachers will focus on finding teachers who can build relationships with the cohort of students and then continue with those students and with the Engineering Club instructional approach into the following school year.</li> <li>Multiple instructors will be trained for each site (two credentialed teachers and two pre-credentialed teaching assistants), and only one instructor per site must agree to continue in order to run the extended-day program.</li> <li>ConnectEd can recommend other, non-OUSD instructors trained in the curriculum that could be called on to run the extended-day program, as a last resort.</li> </ul>
Math teachers who deliver the summer and extended-day programs do not use the STEM-focused, project-based pedagogy central to the curriculum, returning instead to their traditional instructional approaches.	<ul style="list-style-type: none"> <li>Effective and on-going professional development and coaching so that teachers are well-versed and comfortable with the project-based curriculum materials.</li> <li>Peer group support within OUSD.</li> </ul>

## **FINANCIAL INFORMATION**

### **Grant Request**

The overall budget for the grant request is \$257,395, with a project period of April 1, 2012 – September 30, 2013.

## **Project Budget**

Approximately \$129,600 will be devoted to Oakland Unified School District to fund program expenses, including teacher salaries for professional development and instructional delivery for the summer session and extended-day program, wages for teacher assistants, OUSD facilities overhead, and student snacks. Remaining grant funds will support ConnectEd salaries and benefits of dedicated staff to deliver professional development and coaching, consultant expenses for R.T. Fisher Educational Enterprises, Inc. and Dr. Nada Rayyes, project oversight and coordination, and semi-annual reporting to the Foundation. As a cost-saving measure—and to continue our organization’s commitment to expanding high-level professional development expertise in project-based, career-themed math instruction—ConnectEd also plans to hire a highly qualified consultant who will contribute to the teacher professional development and coaching and will act as day-to-day Project Operations Manager. We have included the budget in the Appendices, along with a budget narrative that further describes program costs. □

## **Additional Funding Sources**

If awarded, the grant from the S.D. Bechtel, Jr. Foundation will provide all funding for the program.

## **Project Sustainability**

In an environment of declining resources across California school districts, there are no guarantees that Out-of-School time programs—like those proposed here—will be sustained into the future. However, OUSD has a strong and growing commitment to promoting STEM at all education levels and offering academic support in literacy and math to the district’s students. In addition, the district strongly supports Linked Learning, including career-themed pathways, as its central high school improvement strategy. Efforts like this one are essential in preparing middle school students for success in STEM-themed high school pathways. Consequently, we are optimistic that OUSD—and other districts with which ConnectEd is working—will take serious steps to maintain or initiate programs like the one we are proposing here.

## **TIMELINE**

Activity/Deliverable	Partner Responsibility	Date
<i>Summer Program Professional Development and Coaching</i>		

Activity/Deliverable	Partner Responsibility	Date
<b>Recruit Teachers</b>	Two credentialed (math) teachers will be recruited per site by OUSD (led by Phil Tucher) to teach in the summer program.  Two teaching assistants (TAs) per site will be recruited by ConnectEd (with help from OUSD) to assist in the summer program, preferably from OUSD's TTO pool ( <i>Teach Tomorrow in Oakland</i> ).	April – May 2012
<b>Pre-algebra teacher PD workshop</b>	Professional development workshop will run for 2 days prior to the start of the summer session. The math teachers will be joined by the morning session teachers for collaboration and integrated planning for one of the two days.	June 2012
<b>Ongoing PD</b>	All math program summer teachers will meet together four days per week for two hours each morning prior to the afternoon instructional session for collaboration and coaching. Once per week, the morning and afternoon teachers will meet together for additional professional development and collaboration.	June – July 2012
<b>Afternoon engineering-themed math program</b>	Two teachers partnered with two TAs per site (one pair per class) will teach the summer afternoon engineering-themed math curriculum.	June – July 2012
<b>College Awareness/Field trips</b>	Once per week, R.T. Fisher Educational Enterprises, Inc. (accompanied by TAs) will provide field trip opportunities and college/career awareness activities for students at each site.	June – July 2012
<b><i>Extended-Day Teacher Professional Development and Coaching</i></b>		
<b>Teacher PD workshops</b>	Professional development for new teachers and additional units will be held (largely online).	August 2012 – March 2013
<b>Ongoing support</b>	ConnectEd available for technical assistance and collaboration.	August 2012 – March 2013
<b><i>Deliver Extended-Day Program</i></b>		
<b>Prepare project-based materials for classroom delivery</b>	Order project materials. Produce and deliver teacher and student curriculum materials.	September 2012
<b>Extended-day program</b>	Three teachers (one per site) to teach the extended-day program, 90 minutes twice per week, 28 weeks.	October 2012 – May 2013

Activity/Deliverable	Partner Responsibility	Date
<b><i>Evaluation and Reporting</i></b>		
<b>Administer summer session pre- and post-tests</b>	Modify the MDPT tests to align with program curriculum. Work with OUSD teachers and leaders to design integrated and coherent evaluation approach Distribute and collect tests to the three sites.	May – July 2012
<b>Interim Report</b>	Submit interim grant report to the S.D. Bechtel, Jr. Foundation.	October 2012
<b>Administer extended-day pre- and post-tests</b>	Distribute and collect tests to the three sites	October 2012 and June 2013
<b>Interim Report</b>	Submit interim grant report to the S.D. Bechtel, Jr. Foundation.	May 2013
<b>Analyze student data</b>	Conduct analyses to determine impact of programs on student learning as indicated by gains on modified MDTP, share and discuss with OUSD teachers and leaders to improve academic intervention models.	May – June 2013
<b>Final Report</b>	Submit final grant report to the S.D. Bechtel, Jr. Foundation.	September 2013

## **PROJECT STAFF INFORMATION**

ConnectEd’s Associate Director for Pathway and Curriculum Development, Pier Sun Ho, will oversee grant activities including project management, budgeting, and coordination with OUSD, R.T. Fisher Educational Enterprises, Inc., and Dr. Nada Rayyes. For the past four years, Ms. Ho has led ConnectEd’s engineering curriculum development work and been a principal contributor to all of the organization’s mathematics-related curriculum development and professional development, including development of project-based curricula in engineering, pre-algebra and Algebra I. She holds masters degrees in Ecology and Evolutionary Biology, School Administration, and Education with Certification from the University of Michigan. (See Appendix for resumes of all key personnel.)

Kentaro Iwasaki, ConnectEd Senior Associate for Pathway and Curriculum Development and formerly Chair of the Math Department at Mission High School in San Francisco, will recruit and train a consultant to deliver teacher professional development, provide instructional coaching, and serve as Project Operations Manager. Mr. Iwasaki will also assist in the development of the testing instruments.

R.T. Fisher Educational Enterprises, Inc. (RTF) will plan, organize, and lead the weekly field trips that will be central to the project's career awareness component.

Proposed independent evaluator, Dr. Nada Rayyes, is currently a Senior Research Analyst at Berkeley Policy Associates. Currently, she is the Project Director for the formative evaluation of ConnectEd's Pilot Implementation of Literacy and Math Design Collaborative Tools, a program funded by the Bill & Melinda Gates Foundation. In that role, she is working closely with Mr. Iwasaki.