

851 South Morgan Street (MC 249) · Chicago, Illinois 60607 · http://www.lsri.uic.edu

October 20, 2015

Dear Collaborative Lead,

The National Girls Collaborative Project (NGCP) and the CryptoClub Project from the University of Illinois at Chicago are seeking Collaboratives to participate as CryptoClub hubsites, pending funding from the National Science Foundation (NSF). CryptoClub developers will train and support hubsite staff. Hubsites will recruit, train, and support programs in their regions to use the CryptoClub curriculum in middle-grade afterschool programs.

About CryptoClub

Cryptography, the science of secret messages is an intriguing STEM topic and an important application of mathematics. The CryptoClub Project develops materials to teach cryptography and mathematics. The CryptoClub Afterschool Curriculum was developed with NSF support and has been nationally field-tested.

A typical CryptoClub afterschool program lasts about 16-20 sessions and uses games, treasure hunts, and other informal activities to engage students in cryptography and mathematics. It applies topics from the middle-school curriculum, such as decimals and percents, division with remainder, common factors, negative numbers and pattern recognition. It also includes cryptography games and activities from the CryptoClub website, <u>CryptoClub.org</u>.

Our 3-minute video, (<u>http://resourcecenters2015.videohall.com/posters/493</u>), which earned a Facilitator's Choice Award at NSF's 2015 Teaching and Learning Video Showcase, gives a brief overview of the project. You may find additional information, including documents "Mathematics in CryptoClub" and "CryptoClub Connections to CCSSM" on our project website, <u>www.math.uic.edu/CryptoClubProject</u>.

Commitments

This 5-year project will train a new cohort of hubsites each year. Collaboratives will be asked to commit to participate for two years, with the first Cohort beginning in the spring of 2017. Participation will involve the following:

- Recruit a minimum of 20 programs per year from your collaborative for at least two years (40 programs total), with a minimum 10 students per program. (400 students total)
- Send two collaborative members to a 3-day trainer-training in Chicago in the spring of the cohort's first year (travel will be reimbursed).
- Train program leaders during the summer following the Chicago training. Leader trainings last about 2 ¹/₂ days, which can be scheduled to match hubsite typical program scheduling.
- Provide support to CryptoClub programs beginning in the fall following training. First year clubs may continue in the second year, however at least 40 different clubs should participate over the two-year period.
- Participate in monthly webinars hosted by the CryptoClub developers for hubsites and leaders.
- Participate in evaluation activities, including facilitating the collection of data from programs in coordination with an external evaluator.
- Give at least one presentation about CryptoClub at a professional conference (up to \$200 is available to defray costs).
- Submit at least two items per year of participation to be posted on the CryptoClub blog that describe activities or experiences related to CryptoClub implementation.

Materials and Expenses

- Hotel, meals, and travel will be paid for hubsite trainers to attend the Chicago training.
- A student book and leader manual will be provided to each trainer attending the UIC training workshop.
- A stipend of \$1000 per year (\$2000 total) will be paid to hubsites for participation.
- The cost of leader trainings at the hubsite, including books (about \$50 per leader) is the responsibility of the hubsite. Leaders should have access to computers with Internet during the training.
- A student book is needed for each student participant. These books are currently sold through the UIC Bookstore (\$12 per student book, and \$31 per leader manual), however prices may change if a commercial publisher becomes involved.
- Students in CryptoClub programs should have access to computers with Internet for at least one fourth of the sessions.

Trainer and Club Leader Qualifications

- CryptoClub trainers should be comfortable teaching mathematics at the high school level. No prior cryptography knowledge is required.
- CryptoClub program leaders should be comfortable with mathematics at the middle-grade level and believe that working with secret messages can be fun. They do not need to be math teachers.

Procedure to Indicate Interest

We would like to know of your interest in participating at this time, so we can document your interest in our proposal to the National Science Foundation. Applications and assignments of Collaboratives to cohorts will take place after funding is approved. Final commitment will be requested in the year prior to the beginning of your cohort. (Inclusion in this grant proposal does not commit you to moving forward if your interest or circumstances have changed at the time of NSF award.)

If you are interested in being a CryptoClub hubsite, please send an e-mail to Karen Peterson (<u>kpeterson@ngcproject.org</u>) by **Monday, October 26, 2015.** You will be sent a template for a letter of commitment, to be returned by **Wednesday, October 28, 2015**.

For questions about the CryptoClub Project, contact one of the CryptoClub developers, Janet Beissinger (<u>beissing@uic.edu</u>) or Bonnie Saunders (<u>saunders@uic.edu</u>).

For information about becoming a hubsite, contact Karen Peterson (kpeterson@ngcproject.org) at NGCP.

Sincerely,

Janet S. Beissinger

Janet Beissinger, Director, CryptoClub Project