

Project Abstract

The proposed partnership between the City School District of Albany (CSDA) and Rensselaer Polytechnic Institute's Center for Initiatives in Pre-College Education (CIPCE) will target approximately 200 students in grades 5 - 8 attending the North Albany Academy, a SINI I school, each year of the project.

CIPCE will provide high quality, on-going and progressive professional development opportunities to 10 math and science teachers, 3 special education teachers, 4 AIS teachers, and the Library Media Specialist, all of whom interact with the targeted students on a daily basis. The focus of these workshops will be on understanding, utilizing and implementing instructional technologies (such as LEGO *Mindstorm Robotics*, *The Geometer's Sketchpad* software, interactive SMART Boards, and on-line discussion forums) as part of a comprehensive and seamless curriculum that will lead to a marked increase in student achievement.

During each school year, teachers will participate in up to 40 hours of professional training embedded into the regular school day on a monthly basis, as well as afterschool support sessions, as needed. During the summer months, five NAA teachers will attend a multi-day institute on the university's campus to delve into concepts covered in the previous months and develop curricula for the following school year.

As a result of this focused professional development, the participating staff members will collaborate with their building peers to review current STEM curricula; develop new lessons that utilize instructional technologies; and implement pedagogical changes to their approach to teaching in the classroom and Library Media Center. As a direct result of these new approaches, students will become more engaged in their science and mathematics classes; become more proficient in STEM, as indicated on NYS standardized tests and internal technology assessments; and have the opportunity to earn Regents credit in math and science courses before entering into high school.