

ANCHORAGE SCHOOL DISTRICT
ANCHORAGE, ALASKA

ASD MEMORANDUM #177 (2007-2008)

January 14, 2008

TO: SCHOOL BOARD

FROM: OFFICE OF THE SUPERINTENDENT

SUBJECT: ACCEPTANCE OF GRANT AWARD: UNIVERSAL DESIGN FOR
LEARNING (UDL) IN SCIENCE EDUCATION

ASD Goal: Increase student academic achievement using data to guide adoption of curriculum, methods, materials, and professional development specifically designed to ensure that each group as designated by No Child Left Behind makes adequate yearly progress.

RECOMMENDATION:

It is the Administration's recommendation that the School Board approve and authorize the Superintendent to accept a grant from Concord Consortium in the amount of \$23,000 for a two-year project to field test computer-based science UDL curriculum modules in nine classrooms in grades four and six.

PERTINENT FACTS:

The National Science Foundation has funded development of technology-rich science curriculum modules for grades 3-6, which acknowledges that students learn different ways, through the Concord Consortium. The work at CAST, the Center for Applied Special Technology, has defined a flexible approach to teaching called Universal Design for Learning (UDL). This has had considerable success in teaching the language arts. This new proposal extends these ideas to science. Nine classrooms in Anchorage, along with classrooms in Acton, Massachusetts, Maryville, Missouri, and Fresno, California, will field-test the materials.

The goal of this project is to use UDL principles to create practical science materials for students and teachers in inclusive classrooms. The project will create inquiry modules around the theme of energy. They will address questions such as "Why are there clouds?" and "What do plants eat?" Probes will support

lab investigations and computational models will allow students to explore virtual environments.

The project includes formative testing of units with students, a four-day professional development summer institute in June 2008, an online professional development course for participating teachers during FY 2008-2009, and summative testing of units with students.

One of the most exciting aspects of the project is the development of graphing and modeling software that expresses data and relationships in text and spoken form. The software will be able to recognize patterns that experts see in the graphs and model visualizations. A careful research design will test learning gains of this instructional approach and compare them to traditional approaches. The hope is that the research, modules, and supporting technology will inspire additional development of computer-based science UDL materials.

Primary grant expenditures are for added duty for an expected ten participating teachers as well as for a site coordinator. The budget also includes materials for training and curriculum. Science laboratory probeware valued at \$20,000 has also been given to the Anchorage School District.

Budget Summary, Two Years:

	<u>FY 2008</u>	<u>FY 2009</u>
Added Duty	\$ 8,690	\$ 8,694
Fringe Benefits	1,310	1,306
Supplies/Materials	<u>2,000</u>	<u>1,000</u>
TOTAL	\$12,000	\$11,000

CC/RG/ES/PM/LV/TGR/BT

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