



# Plano ISD and Palm Computing Education Pioneer Grant Application



Please direct any questions you may have on this application form or the process to your cluster technology coordinator or send an email to [palmgrant@pisd.edu](mailto:palmgrant@pisd.edu).

**1. Proposal Title:** "Processing in the Palm of Your Hand"

**2. School Name:** Barron Elementary

**Address:** 3300 P Ave

**City:** Plano

**State:** TX

**Zip:** 75074

**3. Primary campus contact name:** Peggy Billingsley, PACE Teacher

**Address:** 3300 P Ave

**City:** Plano

**State:** TX

**Zip:** 75074

**Phone:** 972-519-8816-ext 50566

**Fax:** 972-519-8931

**Email:** pbilling@pisd.edu

**Webpage:** <http://k-12.pisd.edu/schools/barron/index.html>

**4. Grades targeted:**

Primary

Intermediate

High School

**5. School demographics:**

Size of school (number of students) 693

Other relevant demographic info (approximate ethnicity breakdown, percent of students on reduced lunch, etc.)

African American 13%

Hispanic 46%

Anglo 36%

**6. Additional grant teachers (if any):**

Name(s): Leticia Cervantes

Discover Teachers - Science

**7. Campus Principal:**

Name: Sara Green

**8. Number of**

**Students  
Involved in  
Your Project:**

Per semester: **25**  
Through June 2002: **30+**

**9. Number of  
Palm devices  
requested:**

**30** units

\*Special hardware requested (if any):

5 keyboards

\*Special software requested (if any):

AvantGo, Handy Cards, IRSketch, miniMusic NotePad

**10. Target subject  
areas addressed:**  
(check all that apply)

Math

Language Arts

Social Studies

Science

Other

Description of Other:

**11. Focus areas:**  
(Check all that apply)

Curriculum

School to Home Communication

Assessment

Other

Description of Other:

**12. Research  
Partner(s)\*:**

**Leticia Cervantes**

**Sara Green**

**13. Proposed  
start date for  
your project:**

**08/01/01**

## **14. Project Description:**

### **I. Introduction**

The purpose of this study is to determine if learning can be enhanced in the classroom utilizing state of the art handheld devices such as the Palm. Our goal is best stated in the project title: "Processing in the Palm of Your Hand."

Children process many things while learning, receiving input in various ways. Often, information is received, but time in class is limited. Research tells us that reviewing information and working with it stores the information in the brain in such a way that it is retrievable. A child cannot apply until the knowledge becomes meaningful. What can happen if the information is stored in the Palm? What if a child is allowed to gather information technologically at school and allowed to continue thinking, processing, and learning at home?

Our proposal is twofold. One, to embark on a technological learning journey exploring archeology, architecture, human anatomy (specifically the brain), reading, music and art utilizing current Palm software. Do some children advance their thinking processes with the excitement of adding music to poetry? The Palm MiniMusic software can allow simple music programs to be written, downloaded to a computer and played in the classroom for others to experience. A child is not confined to the classroom to create his artistic expression, and not limited by demographics. The work of Gardner, Felder, Sliverman, and Kolb, describe learning styles and types of intelligence. It is our hope that the Palm will allow these styles to flourish in instances that paper and pencil do not. Works of literature can be downloaded to the Palm for at home reading that could occur outside, under a tree, a gentle breeze blowing; a quiet place to think. A unicorn could be created from home ready to insert into a web page the next day. Facts could be reviewed, resources revisited and pondered, with thoughts being recorded at the moment they are fresh. There are countless ways on a daily basis how the Palm technology will be used.

Secondly, our purpose is to allow demographically challenged children the opportunity to share the wealth of information within the community of their family and friends. This technology placed in the palm of a child's hand states that we care beyond the classroom, that we support tools of higher learning in the home in which otherwise is limited to basic necessities of life. Technology used to enhance learning can make the biggest difference in the eyes of a child. Giving a financially challenged child the opportunity to explore technology is a chance of a lifetime.

Is the Palm technology the way to the future? Can this technology enhance learning? What is the frustration factor in implementing this technology? Is it user friendly? Is it of value to students with disabilities? Our proposal seeks to answer just these questions and more.

## II. Experiment

Approximately twelve fourth and fifth grade PACE students, and eleven fifth grade Discover students at Barron will be participating in this study.

Fall semester – 2001

Fourth grade students will spend the first part of the year learning how to use the Palm technology in anticipation of an intensive study in the spring.

Fifth grade students will utilize the Palm technology while studying the brain. Students will gather data from web sites using AvantGo, utilize Handy Cards for taking notes and learning vocabulary as well as IRSketch for diagram drawing. These students will design their own web site with the assistance of the Palm.

Fifth grade Discover Students will explore Bloom's Taxonomy in an Internet Research Project, storing information from web sites in the Palm using AvantGo.

Spring semester – 2002

Fourth grade students will utilize the Palm technology in studying archeology and architecture. This semester long study will utilize the Palm to it's greatest potential as students research these subject areas in a web based study.

Fifth grade students will utilize the Palm miniMusic NotePad to add music to poetry in their study of law. This study of law is concurrent with the Mathematical Mystery Tour using the basic calculator function of the Palm.

Control: PACE Students studying the same curriculum at Harrington Elementary also under the direction of Peggy Billingsley will serve as the control group for evaluation. A comparison of fifth grade Discover students at Mendenhall under the direction of Leticia Cervantes will be done.

### 15. Project Evaluation:

A comparison of fourth and fifth grade students from Barron and Harrington Elementary Schools will be used to determine if learning can be enhanced in the classroom utilizing state of the art handheld devices such as the Palm. A comparison of Discover students from Barron and Mendenhall Elementary Schools will also be done. These questions will be assessed by both teachers during the school year:

1. As students are in PACE classes two or three days per week, will students remain task committed on the remaining days? Discover students meet once/week.
2. Can analytical thinking be enhanced? A rubric will be created to evaluate this objective.

3. What is the overall quality of work? A percentage of students completing assignments ahead of schedule, in more detail, with more content and correct spelling will be computed.
4. What is the frustration factor in implementing this technology? Purely subjective, but informational.
5. Is this technology of value to students with disabilities?
6. Can this benefit economically challenged students?
7. Is the Palm technology the way to the future? Also subjective, but beneficial.

Students will complete a questionnaire in reference to the ease of use, productivity and cool factor.

Principal, Sara Green, will evaluate the use of resources to evaluate this project and determine if it should continue at Barron Elementary.