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.

1. Proposal Title: We Have the Whole World in the PALM of Our Hand

2. School Name: Frankford Middle School
Address: 7706 Osage Plaza Pkwy
City: Dallas **State**: TX **Zip**: 75252

3. Primary campus contact name: Judy Scott

Address: 7706 Osage Plaza Pkwy
City: Dallas **State**: TX **Zip**: 75252
Phone: (972) 519-8889 **Fax**: (972)519-8915
Email: jscott1@pisd.edu **Webpage**: k-12.pisd.edu/schools/frankford.htm

4. Grades targeted:
- ☐ Primary
- ☒ Intermediate
- ☐ High School

5. School demographics:

Size of school (number of students) 1083

Students by Ethnicity:

African-American	6.4%
Hispanic	3.5%
White	74%
Asian/Pac. Islander	16%
Native American	0.1%

6. Additional grant teachers (if any):
Name(s): Keith Evetts, Lucy Hamm,
Pam Ryzman, and Harriet Zastoupil

7. Campus Principal:
Name: Susan Modisette

8. Number of Students Involved in Your Project:

Per semester: 30
Through June 2002

9. Number of Palm devices requested:

35 units

*****Special hardware requested (if any):
35 Palm III Connected Organizers with cradles, 35 portable keyboards, 31 ImagiProbe kits (includes hardware and software), 1 infrared printer
*****Special software requested (if any):
ImagiMath, AvantGo, Documents To Go (or other similar application)

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):

Plano Research, Evaluation, and Assessment Department

For Support:

Plano ISD Assistant Superintendent for Technology
Plano ISD Department of Instructional Technology

13. Proposed start date for your project:

06/01/01

14. Project Description:

Goal: Frankford Middle School has been a pioneer in blending technology with instruction using Plano ISD's curriculum standards since the school's inception. Students are challenged to not only learn technological skills to complete class assignments, but also to apply these skills to activities outside the classroom. As a result, our Site-Based Committee has targeted the use of current technology to problem solve and master curriculum objectives as one of our school's goals for the next five years. This grant aligns with our school's objective to create a climate whereby students can further their academic success through the latest technology. It also aligns with the technology components in each of the four subject areas in the Texas Essential Knowledge and Skills (TEKS). The specific goals of this project are:

1. To use Palm handheld computers to problem solve and master curriculum objectives
2. To create a climate within Frankford whereby students can further their academic success through the use of Palm handheld computers

Plan: Frankford will select 30 eighth grade students to participate in the project. These students will be placed on a team where they will share the same academic teachers (algebra, English, history, and science). These students will be grouped together in the same class each period for their academic classes. Each of these students will be issued a handheld computer for use throughout the day. In addition, each of the five teachers involved in the project will receive a handheld computer.

Students will be expected to use the organizing capabilities of the Palm for assignments and note taking in each of their classes. Within each of the academic subjects, there are specific instructional activities that will employ the use of the Palm. In Algebra 1 we have requested the ImagiMath software so students can graph equations and discover connections between parts of the equation and the graph. Students can then use patterns they recognize to generalize mathematical concepts. Students' understanding and communication skills will be measured through reflective journal writing using the word processing component of the Palm. Graphing will be taught during the second, third, fourth and fifth six weeks. In English we have requested the portable keyboards to enable students to move through the entire writing process on the handheld computer from brainstorming ideas, to organizing these ideas in graphic organizer templates, and finally to the written composition whereby students can easily edit their work before submitting their final copies. Students will be engaged in the writing process each six weeks. In history we have requested AvantGo to aid students in gathering research from the Internet. Students will also be able to use the word processing component of the handheld computer to generate Web pages for their Web sites. These projects will occur during the third and sixth six weeks of the school year. Also, students will be using the word processor each six weeks to produce essays, children's stories, magazine layouts, and skits. And finally, in science students will be conducting experiments continually throughout the year. We have requested the ImagiProbe kits so that students will be

able to collect data through the use of probes as well as the Internet, store information, and ultimately display information through graphs, tables, and charts. Student understanding and communication skills will be measured through written analysis of these graphs, tables, and charts using the word processing component of the handheld computer.

We anticipate that students will transfer the knowledge of specific computer skills into different subject areas where appropriate, as well as use them outside of school. We also expect that students will make use of infrared technology to transfer data to the teacher and other students without the necessity of a hard copy. Due to extensive, anticipated use in our classrooms, we expect evaluation, revision, analysis of evaluation feedback, and reporting to be a continual process as we implement the project throughout the school year. Ultimately, we want our students to discover ways that the teachers had not anticipated for using their handheld computers in all of their classes. We will periodically conference with students regarding new uses for the Palm as we collectively learn and upgrade our project throughout the year.

PROJECT TIMELINE	
June-July	Identify & schedule students
June-July	Training for staff involved in project
July-August	Initial use of Palm devices by staff members to organize and modify activities for student use; management activities including creation of observation database tool
September	Baseline survey for students administered Distribution of Palm devices Initial training of students
October-November	Graphing in algebra Essay writing in English
December	Researching & web site creation in history Free-response essay in history Graphing in algebra Essay writing in English
January-February	Mid-year survey administered Essay writing in English Use of probes in science
March	Graphing in algebra Researching in English
April-May	Researching & web site creation in history Document-based essay in history Graphing in algebra Essay writing in English Final survey administered

15. Project Evaluation:

We will administer questionnaires at the beginning of the school year to establish base line data of students' frequency of use of technology prior to beginning the project. We will work with the Plano ISD Research, Evaluation, and Assessment Department to help us design the questionnaire so that data can be analyzed appropriately and gathered electronically. Monthly informal discussions with students during their advisory periods will be used to provide additional data to evaluate the effectiveness of the project. Academic team members meet on a daily basis, providing a forum for discussion regarding refinements to the project. These ongoing discussions with students, and teacher input, will enable adjustments to be made to improve the effectiveness of the project throughout the year.

Evaluation Design:

Goal One: To use Palm handheld computers to problem solve and master curriculum objectives

Evaluation Question One: Does handheld computer technology aid in problem solving?

Indicator: Increased student use of Palm devices without cues from teacher

Data Collection Instrument: Student performance as assessed by teacher through observation

Evaluation Question Two: Does handheld computer technology aid in mastery of curriculum objectives?

Indicator: Successful completion of student assignment / activity with a high level of teacher satisfaction based on appropriate applications by students

Data Collection Instrument: Student performance on content mastery assessments

Goal Two: To create a climate within Frankford whereby students can further their academic success through the use of Palm handheld computers

Evaluation Question One: Has this project increased participating students' frequency of use of handheld computer technology in and out of school?

Indicator: Self reporting of frequency of use in the four academic areas, in electives, for organizational purposes, and for activities outside of school

Data Collection Instrument: Pre-, Middle, and Post-survey of students (will be designed in cooperation with Plano ISD Research, Evaluation, and Assessment Department)

Evaluation Question Two: Do students receive appropriate assignments/activities to use the handheld computer technology and technical assistance as needed to complete the assignments/activities?

Indicator: Successful completion of assignments/activities with a high level of student satisfaction

Data Collection Instrument: Monthly informal discussions with students during their advisory periods.