



UMES SUMMER TRANSPORTATION

INSTITUTE (UMES STI)

2014 ANNUAL REPORT

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PART I: PROGRAM INFORMATION

*The Summer Transportation Institute (STI) Project Director is responsible for preparing and submitting an annual report to their State Transportation Agency and Federal Highway Administration (FHWA) Division Office. This report is due to FHWA Headquarters Civil Rights Office on or before **October 15 of each year**. The report includes the results of activities associated with the STI. One (1) electronic copy in MS Word, Font Size Times New Roman 11.5 - 12 pt is sent to each agency via electronic mail. The following components are included in the report.*

SECTION I: PROGRAM ADMINISTRATION

Host Site Name and Address

University of Maryland Eastern Shore
Department of Technology
11931 Art Shell Plaza
Princess Anne, Maryland 21853

Program Director

Dr. Joseph O. Arumala

Length of Program

The UMES STI program is a 2-week non-residential program

Type of Program

Non-Residential

Grade Levels

Levels 6-8

Number of Student Applications Received

Number of applications received was 23

Number of Students Selected for Program

Number selected was 23

Number of Students to Complete Program

Number that completed the program was 21

ABSTRACT

The purpose of the UMES Summer Transportation Institute is to create awareness and stimulate interest among middle school students on the Lower Eastern Shore of Maryland about the vast transportation careers available and provide them with the opportunities to explore the exciting

field of the Transportation Industry. The students went through a course of studies in Mathematics, Science, English and transportation systems and participated in regularly scheduled trips to local transportation related facilities. The Institute was for two weeks from June 23rd to July 4th 2014. Each participant was provided lunch for the period and a Casio FX 9860 G II Scientific Calculator. Each student made transportation arrangements to and from UMES. The program went from 8.00 am to 5.00 pm daily.

COMMITTEE, PARTNERS AND STAFF INFORMATION

1. Intermodal Advisory Committee (IAC): *Provide the names, titles and affiliations of members of the advisory committee.*

They are:

- A. Gregory Murrill
Program Manager
Federal Highway Administration
Office of Human Resources
Student Outreach and Career Entry Programs Group

HAHR-40, Room E63-312
1200 New Jersey Avenue, SE
Washington, DC 20590

Office: 202-366-2535
Gregory.murrill@dot.gov

- B. Al Pollard, A.A.E.
DirectorMartin State Airport
Box 1, 701 Wilson Point Road
Baltimore, MD 21220
(410) 682-8800 . (410) 682-8822
e-mail: apollard@martinstateairport.com
Maryland Department of Transportation
Maryland Aviation administration

- C. Rudolph Cane, Maryland Delegate
Maryland Port Authority
(410) 749-1142

- D. Dr. Joseph D. Dodo
Department of Natural Sciences
University of Maryland Eastern Shore
410 651-6030

2. Partners/Sponsors: *Provide names, titles and affiliations of STI partners/sponsors (other than IAC members and their role/contribution(s) to the STI.*

Mr. Stephen Mcdaniel.
Vice President for Institutional Advancement
University of Maryland Eastern Shore
410 651 6676

Mr. Mcdaniel supplied Back Packs to student participants and Instructors

Bill Robinson
Director - Office of Public Relations
2102 Bird Hall
University of Maryland Eastern Shore
Princess Anne, MD 21853
410 621-2355 - office
443 397-8860 – cell

Mr. Robinson assisted in disseminating news and information about the STI in the University and local community.

*a. **Program Faculty and Staff:** Provide the names, STI position titles, and affiliations of **all** STI faculty and staff.*

Dr. Joseph O. Arumala, Project Director
Professor
Department of Technology
University of Maryland Eastern Shore

Jeremy Michalski, M. Ed.
Science Teacher
Salisbury Middle School

Karen M. Carroll
English Teacher
Salisbury Middle School
627 Terrapin Lane
Salisbury, Maryland 21804
(410) 677-5143

Rebekah G. Badaki
Mathematics Teacher
Salisbury Middle School

Ronald Dyda,
Salisbury Middle School
Recreation Teacher

PROGRAM OBJECTIVES

Provide a list of the STI objectives and explain the method used to measure whether or not the objectives were accomplished. *(The method of measuring accomplishments should be based on weekly evaluations submitted by participants). If objectives were not met, then an explanation of the barriers that prevented accomplishment should be provided.*

Students participating in the program will perform hands-on and practical activities, field trips, and participate in other activities that will expose them to careers, academic programs, and personnel in the transportation industry. Each student will:

- Explore safety, innovative trends, and career opportunities that exist in transportation systems;
- Become knowledgeable of the federal, state, and local governing agencies of the transportation modes;
- Develop understanding of importance of positive attitudes about learning math and science and the opportunities for advance studies;
- Exposure to college campus and opportunity to meet faculty members and college students that are involved in academic programs that lead to transportation careers;
- Development of computer, professional, and communication skills needed for successful study.

The Institute was designed to:

- Impact middle school students
- Improve oral and written communication skills
- Improve critical thinking
- Introduce intermodal transportation systems
- Encourage collaboration by working in teams on projects

The participants used prepared Questionnaires to evaluate the effectiveness of the Institute's activities weekly. The overall outcome of the evaluations was that these objectives were met.

STUDENT SELECTION PROCESS

Briefly describe the methods used and results for recruiting and selecting students.

We used a combination of visitation to schools, personal contacts and emails to recruit students for the Institute. Institute participants were selected by the Director and Dr. Joseph D. Dodoo. In the selection activity several factors were used including written essay, Grade Point Average (GPA) and current marking term results for selecting participants. The committee received 23 applications and all met the criteria for selection. All 23 students were selected but 21 of them actually participated in STI program. The other 2 dropped off because they did not have transportation to the campus.

MARKETING

Summarize the strategies used to market the STI.

The strategies used to market the STI included:

- Visitation to schools, youth groups and churches
 - Newspaper & Newsletter publications
 - Via emails and letters
 - Word of Mouth
 - Town Hall Meetings
 - Flyers
 - In addition, a webpage and marketing brochures upgrades were implemented and used.
- The application was made available on the STI web page www.umes.edu/UMESSTI

DEMOGRAPHIC SUMMARY REPORT

Complete the attached demographic summary sheet.

FY 2014	
National Summer Transportation Institute Program - Demographics Data Sheet	

State:	Maryland	Project Director:	Dr. Joseph O. Arumala
Host Site:	University of Maryland Eastern Shore	Program Dates:	June 24-July 5, 2013
		Program Length:	2-Weeks

Select Grade Level		Applicant Data	
High School		Number of Applications Received:	23
Middle School	X	Number of Participants Selected:	23
Select Program Classification		Number of Participants that Completed the Program:	21
Residential		Geographic Representation	
Non-Residential	X	Number of Cities: 4	Number of Counties: 2 Congressional District Number(s): 1

	Race/Ethnicity							Gender		Disability	Grade Level				
	African American	Caucasian	Hispanic American	Native American	Asian American	Pacific Islander	Other	Male	Female	Targeted Disabilities*	6	7	8		
Number Of Participants:	21							8	13			X	X		
Provide Type(s) of *Targeted Disabilities:															

Schools Represented	
Name/City/State	Name/City/State
Bennett Middle School, Salisbury, MD	Crisfield Middle/High School, Crisfield, MD
Mardela Middle and High School, Mardela Springs, MD	Chicoteague Combined School, Chicoteague, VA
Salisbury Middle School, Salisbury, MD	
Somerset Intermediate School, Princess Anne, MD	
Wicomico Middle School, Salisbury, MD	
Pocomoke Middle School, Pocomoke, MD	
* Targeted Disabilities Includes the following: Deafness, Blindness, Missing Extremities, Partial/Complete Paralysis, Convulsive Disorders, Mental Retardation, Mental Illness, And Distortion Of Limbs And/or Spine. Reference Secretary Mary E. Peters, Memorandum Dated 4/2/07 To Departmental Officers, Assistant Secretaries, And Heads Of Operating Administrations; Subject: Fiscal Year 2007 Hiring Goals For Persons With Targeted Disabilities, Washington, DC.	

SECTION II: PROGRAM CURRICULUM

ACADEMIC PROGRAM

Describe the multi-modal academic program. Information on field trips and speakers should be included. Highlight significant accomplishments and innovations. An academic program calendar is also necessary.

The academic program consisted of written communication and critical thinking components interweaved with transportation activities and studies, English, Mathematics and Science sessions. The English, Mathematics and Science studies were geared towards preparation of the students for taking standardized tests. The lesson plans for each module are shown below:

ENGLISH

The 2 week Communications program was designed to provide students with opportunities to enhance their skills in reading, writing, and researching as they explored career choices in the field of transportation-aviation, land, and water.

Summer Transportation Institute 2014- Communication Unit
<i>Karen M. Carroll</i> <i>Communications Instructor</i>
Introduction
Objective: Provide students with an opportunity to read complex informational text related to the transportation industry. The goal is to develop and improve the strategy of Close Reading as recommended by the College and Career Ready Standards. To be able to understand the rudimentary components of Communication and express themselves in written form in a variety of styles-including essay, narrative, lyrical, etc.
Introductory Activity- Unit Opener

Summer Transportation Institute 2014- Communication Unit

Karen M. Carroll
Communications Instructor

Activity/Process

[Activities and Processes]

Whole class will make a list on chart paper of occupations/roles that require effective communication?

Students will work with partners to chart the outcomes of effective and ineffective communication. After the charts are completed, the students will present their findings and a group chart will be made.

<i>Effective Communication</i>	<i>Ineffective Communication</i>
<i>Responses will vary according to groups. Students will explain their answers during the presentations</i>	

Students will be presented with information on what communication is and how to do it to garner the most positive results. After presentation and discussion about how communication is important in all areas of life including careers in transportation, they will select a topic for their written project. They will then select a topic and begin to write an essay, narrative, poem, etc. focusing on the task of communicating ideas to the reader in a way that meets the needs of the audience and expresses the thoughts of the writer.

Reflections-

To be written in notebooks at the beginning of next class

(How does communication help you to be successful? How can you use this subject to help you now and in the future?)

Evaluation

[Project Evaluation]

- Is collaborative grouping an effective means of instruction with this group?
- Are there specific groupings that work better than others? If so, examine the reasons.
- How can instruction be more effective?
- Does the result of today's lesson provide a good starting point for the next lesson?
- Are students better informed about the importance of communication than when they entered the program?

Summer Transportation Institute 2014- Communication Unit
Karen M. Carroll Communications Instructor
▪ Were strategies presented that can be used on daily basis?
Conclusion Students presented their project in the following forms-narrative, poems, and essays. They were able to research information for accuracy for the informational writing that was done. Those who presented narrative were encouraged to be specific and clear to assist the audience in being able to have a more precise understanding of the text. Due to short duration of the program, the requirement for the project was that it consist of one typed page.
Students will work with partners to decide which subject(s) is the most important. Present the Essential Questions- 1. How does the ability to communicate effectively impact all areas of our lives? <i>PowerPoint on Communication will be Presented for instruction and discussion on Day Two. The purpose of their writing is to promote thinking as a effective communicator. The type of writing that the students select is only an avenue for the objective NOT the objective in and of itself. (Karate Kid Effect)</i>

MATHEMATICS

Instructor: Rebekah Badaki

During our Math is Fun! Course the students learned the practical uses of the Casio fx-9860G11 calculators provided by the program. We started with a diagnostic pretest comprised of 50 questions. Most students scored in the average range with a few scoring below average and a

few scoring well above. They used the calculators to fix mistakes and improved results dramatically.

We worked through mathematics skills the students identified as needs such as fractions, proportions, volume, area, and one and two step equations. We also related math to transportation and real world applications such as railway transportation, surveying, flight simulation, and agriculture.

We had a guest speaker, Eddie Johnson who graduated from a local high school, earned a B.S. from UMES in agriculture and has taught both high school and was a professor at University of Maryland College Park.

Students wrote daily reflections and worked through logic and spatial reasoning problems. This was made into a presentation to be shared with parents at the conclusion of the program on July 3.

Overall, a majority of the students met with success during Math is Fun! They interacted well with one another and the instructor.

SCIENCE

Instructor: Jeremy Michalski

The scope of the class, Science in Action, was to introduce rocket propulsion and road construction. These two areas of science are pivotal to the transportation industry. Day one was spent discussing various topics on rocketry and types of road and strategies for dealing with variables such as speed and drainage.

Our first project was to construct rockets from kits and launch them using a rocket launcher. Each student built and decorated their rockets. The students constructed fins and affixed them to the rocket. The final day of the project was spent launching the rockets and the kids truly enjoyed this project.

The second project was to create concrete block and paint them. The purpose of this was to demonstrate the process involved in concrete road construction. After the students poured their concrete, we let it cure for 48 hours. When the concrete was hard, the students painted the blocks and took them home. The students all successfully completed this project.

In summation of the section, Science in Action, I will comment that the projects were very good and will be repeated next year. The rocket and stepping stone projects provided the students' opportunities to work with mediums found in the world of transportation. Rocketry can be found in jet science and space travel. Stepping stones are made with concrete which can be found in roadways and pedestrian routes as well. Most students were able to successfully complete all projects. Those who were not successful were debriefed on the importance of following directions and being mindful of procedures in rocketry and curing concrete. In addition to the construction of the aforementioned projects, the students were able to create tangible objects that could be kept as mementos. Being able to keep the projects provides a connection to the time spent in our program and the science behind their construction. Overall, I believe the students were successful and gained a greater appreciation for the subject of science.

SPORTS AND RECREATION PROGRAM

Instructor: Ron Dyda

Our goal for the UMES STI Recreation and Fitness component is to expose students to sports and recreation, rules and regulations, and to encourage good sportsmanship.

Every activity we participated in utilized and reinforced four cornerstone rules: Safety, Honesty, Respect, and Effort. Each of these rules were practiced and applied in every activity because each of these rules is applicable to everyday life and future employment, especially in the transportation industry.

Our week began with circle activities to teach and reinforce our four rules. In these activities, students' boundaries and barriers are addressed and opened. Each student is required to perform tasks that are physically, emotionally, and mentally engaging without directly addressing our 4 cornerstone rules. These activities progress from walking and clapping to running and touching each other appropriately. By teaching these 4 rules through games, the students apply the rules, reinforce the rules, and are better prepared to hold themselves and each other accountable as we progress through our time together.

For Tuesday, we had an outdoor Yoga session where we practiced giving 100% and honesty in our efforts and feedback. This event was very well received by the children.

Wednesday, we utilized the bowling alley and each child was able to work in a small group cooperatively. There was much laughter and positive feedback for all involved.

Our Friday activities were modified from using the UMES Pool to a free play in the UMES gymnasium. Several students ran relay races, played basketball, and exercised on the track mats. The kids were actively engaged and they were able to enjoy themselves immensely in the impromptu adjustment while applying our goals of Safety, Honesty, Respect, and Effort. The following Monday, we solved a movement logic puzzle called "traffic jam" prior to utilizing the UMES pool for a free swim activity. Several of the students were engaged in swimming lessons with myself and others were building their courage and abilities in the deep end of the pool as well. Many cheers and positive comments were heard throughout the session.

EMERGING TECHNOLOGY

A Guest Speaker, Mr. Mike Shealey spoke on the use of the 3-D Printer in several technological applications. He also demonstrated the use of the printer to make (print) several items including combs and hand bands.

ENVIRONMENTAL DESIGN & STEWARDSHIP

Where applicable in the projects, environmental stewardship was integrated in a way that gave the students an understanding of their role in protecting the environment. As an example, with the West Point Bridge software, while designing the bridge, the students were introduced to the requirements for maintaining the water ways over which bridges are built. This included the coverage of environmental topics such as waste management, pollution control and recycling of materials to save the earth. This theme was integrated into other academic areas as well as discussions during and after field trips as students were asked to suggest how the areas they had visited can be environmentally improved.

Follow-up Survey of Participants

The UMES Summer Transportation Institute is designed to attract middle school students to the

transportation industry. It will therefore seek to track the academic performances and interests of the alumni of the Institute by keeping relevant data as they move into high school and eventually entry into college and the workforce. Base data will be collected through the application and selection process. At the end of each summer session an exit survey will be administered on the participants to determine whether their interest is still in the transportation industry. Thereafter, an annual survey will be sent out to alumni to find out if their interests is still in the transportation industry or other STEM related careers. To assist students in exploring scholarship and career opportunities in the transportation industry, links will be provided to local and federal sources on the Institute's webpage. When enough data has been collected, this follow-up exercise will be part of the annual report.

We plan to use Exit Survey to produce base data that will be used to create a plan to keep the STI alumni interested in the Transportation Industry. It is planned to produce a Newsletter on STI activities that will be distributed to participants. Finally, we plan to create a monitoring system to track the interest of participants in Transportation as they progress through high school to college.

ENHANCEMENT PROGRAM

Describe the enhancement program activities and highlights with objectives and accomplishments

The Enhancement Program activities addressed land, air and water transportation systems. The activities included hands-on components and field trips. The following areas were covered:

LAND TRANSPORTATION

Instructor: Dr. Joseph O. Arumala

Highways – Road Construction

The students were introduced to highway and bridge construction with highlights of students performing the Standard Proctor Test which is used to control the strength of road bases and measuring elevation using the automatic level. They were shown the typical cross-section of a road with typical components of sub-grade, sub-base, base and the riding surface.

Surveying

The students used the Automatic Level and Level Rod to measure elevations. Elevations are important in highway construction. A road pavement must be built at predesigned elevation (height) above the mean sea level to insure optimum performance.

Bridges

The students used the West Point Bridge software to simulate the building of a bridge over a river. The students built and tested the bridge. When some truss members failed during the load testing, they were able to go back to the drawing board and strengthen those members that failed. A truss bridge model was assembled by the students.

AIR TRANSPORTATION

Instructor: Dr. Joseph N. D. Dodoo

Guest Speakers Mr. Simeon Richardson, USAIRWAYS
Mr. John Abent, Navigation-Aviation-Science & Space Academy
Cadets (NASSAC)

Abstract

The areas in Airways and Aviation Sciences covered included: Navigation & Planning, National Airspace System, Categories of Aircraft, and Aerodynamics including aircraft components, axes of rotation and fundamentals of flight. The students were also exposed to the Flight Simulator where the student learned to fly a plane and to Air Traffic Control activities. This module also included aspects of Air Travel Safety and careers in the air transportation industry.

The Air Transportation component of the Summer Transportation Institute began with a Safety briefing. The students were then instructed on categories of aircraft, and the National Airspace System. They learned to read the Washington Sectional chart and successfully identified various airports including the Salisbury Wicomico County Regional Airport. They learned about runway orientation and traffic pattern and pattern altitude. The students successfully planned a flight from Salisbury (KSBY) airport to Baltimore, Martin State Airport (KMTN). They were able to use a flight plotter to determine the distance between the two airports.

The students also enjoyed flying a flight simulator courtesy of Mr. John Abent who very generously donated time and equipment, a mobile flight simulator to the Summer Institute. Before flying the students were lectured on the fundamentals of flight. The flight was conducted in a highly professional manner. That is, it consisted of a crew of a pilot (a captain), and a co-pilot (first officer). In the interest of time each flight was limited to five minutes and also runway pattern. Once complete the crew switched places so that each student could be pilot in command. While the flight was being conducted in the mobile flight simulator, Mr. Simeon Richardson simulated an airport tower in the lab to establish communication between pilot and control tower. Students took turns in playing the role of controller.

The final part of the Air Transportation program was a day trip to the Air and Space Centre in Norfolk, Virginia. A guided tour was provided which proved to be quite educational. There was a variety of airplanes spanning several decades. The students also saw original space capsules and a wide array of space memorabilia including mock-ups of Luna and Mars surfaces.

In this section the participants were exposed to the Flight Simulator where they learnt the basics of how to fly a plane and to Air Traffic Control activities. The areas covered included:

- Topics: Airports, Aerodromes, Water Aerodromes, Define Aircraft.
- Instructional tools: PowerPoint Presentation and Internet Assignments
- Topics: Aeronautical Charts Familiarization and Introduction to Aviation Navigation.
- Instructional Tools:
 - Visit the UMES Air Traffic Control Simulator
 - PowerPoint Presentation
 - Maryland Aviation Administration Aeronautical Chart
 - Navigation Plotter

- Flight Computer – E6B
- Navigation logs
- Topics: The Flight Training Process and Airplane Nomenclature
- Instructional Tools
 - PowerPoint Presentation
 - Visit and Fly the UMES Flight Simulator
 - P-51 Model Airplane

WATER TRANSPORTATION

Instructor: Dr. Joseph O. Arumala

The water transportation activities included exploring Deep Sea Freight Transportation, Deep Sea Passenger Transportation, Marinas and Local Water Transportation. There were also discussions of Water Transportation Safety and careers available in Water Transportation.

FIELD TRIPS

We made field trips to Baltimore and Ohio Railroad Museum, Baltimore, MD and the Virginia Air & Space Center, 600 Settlers Landing Rd, Hampton, Virginia.

SPEAKER

We invited DR. Derrek B. Dunn, Professor and Chair, Department of Technology, University of Maryland Eastern Shore, Princess Anne, Maryland, to give the Key Note Address during the Closing Ceremony. Dr. Dunn's address was delivered by Mr. Harry M. Shealey. The motivational address covered many areas of the Transportation Industry encouraging the students to be focused in the studies and pay special attention to STEM courses that will lead to the many careers available in the Transportation Industry. It also covered emerging technologies like the 3-D Printer.

EVALUATIONS

Summarize the results of the overall evaluations. Participant evaluations may be included as an appendix.

The participant evaluations of the Institute's activities were generally widespread. However, the overall evaluations were good.

ORIENTATION AND CLOSING AWARDS PROGRAMS

Summarize the orientation and closing programs, including information on awards and certificates presented. Include a list of "dignitaries" and a copy of the press announcement of the Closing Awards Program, if applicable.

The 2014 Summer Transportation Institute's Opening Ceremony started at 9.00 a.m. on Monday, June 23, 2014 with opening activities which included the sharing of information about the program with parents and guardians with all program workers (Teachers and Student Assistants) in attendance. The Director welcomed the student participants and their

parents/guardians and gave a brief overview of the Institute's activities. A formal introduction of students, parents/guardians, and Institute's staff and faculty followed. The schedule for the program was then distributed and the Director went over it highlighting the activities for each day of the two weeks duration of the Summer Institute. The Director answered questions about the schedule. Daily transportation was a concern for some parents. The opening ceremony lasted for one hour after which the regular activities went on as scheduled.

The Closing Ceremony was on July 3, 2014 at 3:30 p.m. The key note address was given by Dr. Maurice Ngwaba, Assistant to the Vice President of Administrative Affairs/Director of Facilities, UMES. The students made presentations in three groups. Each group researched career opportunities on one of the transportation modes: Land, Water and Air. Following this, the participants were presented with certificates of attendance and a package including the Casio FX 9860 G II scientific calculator. Six Trophies were awarded to outstanding students in Overall Best Student, Transportation, Mathematics, Science, Communication and Sports. A Trophy was also presented to the Best Teacher as selected by the STI participants and another Trophy to the Exceptional Teacher.

In addition to the parents, those who attended the closing ceremony included Dr. Ibibia K. Dabipi who handed out the Trophies and Certificates and Mr. Harry M. Shealey who addressed the students.

SECTION III: PRELIMINARY FINANCIAL REPORT

Provide a report of the STI account activity that details reimbursement requests and expenditure of funds to date.

See enclosed Financial Report

Budget			
Categories	Approved	Expended*	Unexpended
Personnel	\$13,100.00	\$13,100.00	\$0.00
Fringe Benefits	\$1,021.80	\$1,021.80	\$0.00
Recruitment	\$0.00	\$0.00	\$0.00
Contractual Services	\$3,600.00	\$3,600.00	\$0.00
Food	\$4,235.06	\$4,235.05	\$0.00
Travel	\$800.00	\$800.00	\$0.00
Supplies	\$10,670.00	\$10,670.00	\$0.00
Stipends	\$0.00	\$0.00	\$0.00
Indirect Cost	\$2,674.15	\$2,674.15	\$0.00
Totals	\$36,101.00	\$36,101.00	\$0.0
Balance = \$0			

***SOME CATEGORIES ARE STILL BEING UPDATED**

SECTION IV: RECOMMENDATIONS

Provide any recommendations for enhancing operations and accomplishments of the STI.

It is recommended that funds be made available early enough to allow time for adequate preparations for all the activities of the Institute including hiring of staff and preparation and approval of contracts, securing on-campus facilities and procurement of supplies and materials.

PART II: APPENDIX

This section may include documentation such as photographs, journal entries, participants' papers, participants' reports, graphics, etc.

Some photographs of activities are shown below:



Figure 1 Some Students during an Aviation Activity



Figure 2 Students in the Swimming Pool – Recreation Time!



Figure 3 Students at the Virginia Air & Space Museum



Figure 4 Visit to Virginia Air & Space Museum



Figure 5 Students Launching their Paper Planes



Figure 6 Concrete Pavement Project



Figure 7 Deana Holding Up the Soil Sample after a Compaction Test



Figure 8 Students with their Truss Bridge



Figure 9 Preparing for a Rocket Launch



Figure 10 Students on the Flight Simulator



Figure 11 Participants and Parents at the Closing Ceremony