

The TECH-know Project









Field Test Teacher's Guide

The TECH-know Project

The TECH-know Project

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PROJECT SUMMARY

TECH-know. Integrated Instructional Materials for Technological Literacy

Background

Science, mathematics, and technology (SMT) literacy is vital to maintaining the economic health of the nation and the well being of its citizens. Given the complexity of our society today, all students graduating from high school need to be literate in science, mathematics and technology. *TECH-know* is a four-year Instructional Materials Development grant that is funded by the National Science Foundation. Instructional materials will be developed to implement the *Standards for Technological Literacy* and complement and support the *National Science Education Standards* and the *Principles and Standards for School Mathematics*.

The primary market for the *TECH-know* materials is the 40,000 teachers in technology education. Secondary markets include hands-on science teachers, mathematics teachers, and the home school market. The project is based upon the proven success of competitive events sponsored by the Technology Student Association (TSA). TSA is similar to Science Olympiad and Odyssey of the Mind. It has a long history of success in challenging and motivating students to learn science, mathematics, and technology. Each year the TSA issues problems that challenge more than 100,000 students in forty-five states, to engage in hands-on and minds-on, problem-based learning that requires the application of fundamental knowledge in science, mathematics, and technology.

There is a strong need to provide teachers with instructional materials to implement the national standards. It is particularly difficult for new teachers to address these standards and provide inquiry-based, hands-on instructional materials that engage and excite students. While TSA provides an excellent focus and structure for SMT outcomes, it does not provide teachers or students with necessary curriculum materials and resources. The *TECH-know* Project will extend the impact of proven TSA activities by developing correlated, co-curricular instructional materials that are systematically grounded in fundamental SMT theories and concepts.

Key Organizations

Several organizations are working together to accomplish the goals of the *TECH-know* Project.

- North Carolina State University--Dr. Richard Peterson is responsible for the overall coordination of the grant. Drs. John Penick and Sarah Berenson are Co-PI's responsible for science and mathematics content.
- Technology Student Association--Dr. Rosanne White is a Co-PI responsible for TSA participation.
- Departments of Public Instruction--Tom Shown is a Co-PI and was responsible for coordinating the states of Florida, Oklahoma, North Carolina, and Virginia that participated in the pilot and field testing of instructional materials. For the supplemental funding, Georgia, South Carolina, Mississippi, Pennsylvania, Connecticut, Kentucky, and Wisconsin will participate in field testing.
- ExplorNet--Victoria Deaton coordinated participation by business and industry.

Instructional Materials

Twenty instructional modules were developed--ten at the middle school and ten at the high school level. The instructional materials contain approximately 30 pages of text for students, and a CD with lesson plans, student worksheets, and supporting instructional materials.

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REQUEST TO PARTICIPATE

North Carolina State University has received a National Science Foundation grant to develop instructional materials related to Technology Education. We developed 20 units that are based upon 20 Technology Student Association competitive events. The project is a four-year project that began in August 2001. The project has the full endorsement of TSA and the profits from the publication of these materials will be returned to TSA to improve and sustain the development of future instructional materials.

This is an exciting team effort that will provide a significant contribution to our profession. Your expertise is important to the success of the grant and we are asking you to develop and test instructional materials related to a selected TSA competitive event.

Summary Responsibilities

- Field Test 2 TECH-know Units
- Record observations.
- Collect pre/post test and survey data.
- Submit completed package by December 9.

You will be compensated \$500 for testing and developing materials during the Fall 2005, if your materials are complete and returned in a timely manner.

Summary Timeline

2005

- August: preparation--collect relevant information related to your instructional units.
- September-October: test unit one in your classroom
- October 14: Submit Unit One data to TECH-know
- October-November: test unit two in your classroom
- December 19: Submit Unit Two to TECH-know.

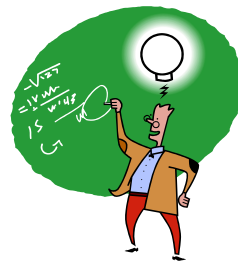
I welcome the opportunity to answer any questions you may have. This project will make a significant contribution to our profession and I look forward to the opportunity to work together.

Dick Peterson
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North Carolina State University
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dick-peterson@nc.rr.com

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Expectations of Field Test Teacher

- The commitment and willingness to field test instructional materials related to the Standards for Technological Literacy and TSA competitive events as they were developed.
 - The commitment from their school principal to allow their school to be involved in the TECH-know project.
 - To field test the instructional materials in a timely manner.
 - To document the experiences and successes of the students during the field test experience.
 - To document anecdotal comments and parent observations during the field test experience, if applicable.
 - To communicate with the state supervisor and/or TECH-know team the concerns related to the field test and instructional materials.
 - To communicate with TECH-know any changes in personal information (i.e. email addresses) or school information.
 - To return the materials and documents requested to TECH-know in a timely manner.
 - Other
-
-



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Overview of the field test procedures for teachers

Attend an introductory workshop in the summer or early fall in their state related to the TECH-know project. The purpose of the workshop is to go over the expectations and procedures for field testing the instructional materials.

Teachers will receive the instructional materials in August.

The packet includes

- An instruction packet
- A TECH-know CD
- The TECH-know Instructional Materials
- A Test Packet consisting of test, answer keys, scantrons, and ID sheets
- Email addresses of all teachers involved in the project

Teachers will need to pilot the instructional materials in October, November, and/or early December.

The documents requested are due back to TECH-know no later than OCTOBER 14, 2005 for unit one and DECEMBER 9, 2005 for unit two.

Field test teachers will need to send TECH-know the name of their principal for that school year and any updates.

In early September, letters will be mailed to all teachers. These letters thank them for their participation in the project and ask that they get their principal's to sign the enclosed letter supporting their involvement in the project.



Each unit of instruction is between 15 and 25 hours. Most units average 15 – 1 hour lessons.

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The Field Test Process

Before the Field Test:

- Send TECH-know the name of the school's principal by August 1 so that principal's letters can be processed.
- Report the number of students and classes involved in the pilot test to TECH-know by August 1 so testing information can be processed.
- Confirm that all mailing information is correct.
- Order materials needed for pilot (if possible).
- Request materials and supplies needed for field test to principal and/or TECH-know.
- Schedule a time to begin both field tests.
- Confirm receiving the packet by emailing TECH-know at techknow@gw.ncsu.edu.
- Request materials and supplies needed for pilot to principal and/or TECH-know.
- Complete Demographic information.
- Distribute permission forms to students involved in the project.
- Assign identification numbers to students involved in the pilot test. The identification numbers will be used on the pretest/posttest.

Upon receiving the packet:

- Read through the TECH-know Packet and make sure that you have everything needed.

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During the field test, the teachers:

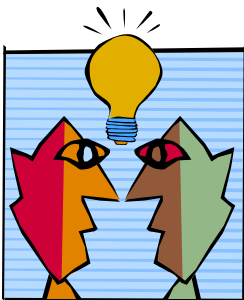
Administer both pretests the first week of school.

Follow the lesson plans as closely as possible.

Use the TECH-know listserv as a means to communicate with other teachers about unit concerns.

Take pictures of the students working and their work.

At the completion of the materials, the teachers:



Administer the posttest and student survey.

Have students complete the writing prompt.

Upon completion of the materials, the field test teacher will:

Make sure the students have returned the photo releases and that the photo releases are signed by their parents.

Create a PowerPoint reflecting the school's experience during the pilot and include photographs of student work.

Assemble the scantrons, ID sheets, journal, revisions, survey, anecdotal stories, permission forms, and writing prompts and return materials to TECH-know in a timely manner. *Make sure all Student Scantrons are completely filled out.*

Once TECH-know has received the packet, someone will contact the teacher and confirm his/her mailing address, and begin processing the \$500.00 payment for his/her work on the project.

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OVERVIEW OF MATERIALS RECEIVED FOR THE FIELD TEST IN 2005

Thank you for your interest in field testing the instructional materials. You should receive the following items:

- 20-TECH-know Student Editions
- 1-Teacher's Resource Guide
- 1-Testing Packet that consists of testing procedures, header sheets, scantron sheets, student identification sheets and a return envelope for the test.
- 1-Email list of all teachers field testing the units

Each of these items is extremely important to the success of the project and is described in detail below.

TESTING PACKET

In the testing packet, you will find instructions for coding and administering the pretest, posttest, and survey. Only one scantron will be used for the pretest, posttest, and survey. You will notice the numbering of the questions differ for each test.

- The pretest starts at 1.
- The posttest starts at 50.
- The survey starts at 101.

Please assign each student in your class one of the ID numbers on the ID sheet and have them use that number on the scantron for identification purposed. Please also take the time to code the Special Codes section after your students have completed the tests. This information will be used to help us analyze the effectiveness of the tests and materials. If you do not have this information, most of it can be obtained from your school's guidance counselors. You will also find in the packet a school header sheet, please make sure the information coded is correct. If it is not, please correct it and let us know by placing a post-it note on the form with the correction when you return the tests. Once you have administered the pretest, posttest and student survey, please return them immediately with header sheets and ID sheets to TECH-know in the return envelope provided. Since the tests are on scantrons and we are scoring them, we realize you will have to grade these tests individually. We apologize for this inconvenience. You may choose to have the students mark on the tests then transfer their answers to the scantrons. Your students will be using the same scantrons for the pretest and posttest, but the pre-post questions are in a different order.

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TECH-know Emails

You will also find a list of the participants in this project with their email addresses and the materials they are piloting. Please feel free to email them if you have any concerns or need help understanding the materials. The teachers who piloted and wrote the materials last year are in bold letters, and will be invaluable to you. TECH-know's website will also help provide information, <http://www.ncsu.edu/techknow>.

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Checklist for returning instructional materials to TECH-know

Due Date: DECEMBER 9, 2005

Please return the following:

- _____ TECH-know Answer Sheets
- _____ Student ID Sheet
- _____ School and Class Header Sheets
- _____ Survey sheet
- _____ Student Writing Assignment
- _____ Photo Release forms for students participating in the pilot
- _____ Student Rubrics
- _____ Sample student work or pictures of student work
- _____ PowerPoint reflecting the module experiences
- _____ Principal's letter

Thanks so much for your contribution to the project. Your participation is invaluable to our effort to provide the best educational materials to students. The documentation that you provide will go a long way toward establishing the educational value of technology education.

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TECH-know Testing Procedures 2005

✦ MATERIALS NEEDED

Test Administrators will need the following testing materials:

- Student answer sheets (1 per student)
- Class Headers – one for each class
- Building Headers – one for each site
- Class roster for each class
- Scrap paper
- Extra #2 pencils.
- Pretest
- Posttest
- Survey for students

✦ PREPARING FOR ASSESSMENT

- Testing Environment – Must be in an area with minimal distractions and interruptions.
- Calculators – Use of calculators is allowed if appropriate for the assessment
- Inventory - All teachers will be provided a packet containing the test, ID sheets, bubble sheets, header sheets, and supporting instructional materials. *Contact TECH-know (919-515-1741) immediately with any discrepancies*
- Exemptions
 - No student should be deliberately excluded from testing
 - Students who are exempt from exams are NOT exempt from TECH-know assessments

✦ BEFORE ADMINISTRATION

- Prepare answer sheets and header sheets
- Code School Code on Building Header with school name and school code. See ID sheet for school code.



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- COMPLETE Class Header form by bubbling the following information:

Teacher Last Name, space, First Initial, skip 2 spaces and put Class Period.
At the bottom of the class header, be sure to complete the test code. See ID sheet for test code. Example: 01 = Ag/Bio MS

Class Period Information

- A= First Period
- B= Second Period
- C= Third Period
- D= Fourth Period
- E= Fifth Period
- F= Sixth Period
- G= Seventh Period
- H= Eighth Period

The image shows a bubble sheet for a class header. The top section is labeled 'GRADE CLASS NAME' and contains the text 'BISHOP N A'. Below this is a grid of bubbles. The bottom section is labeled 'SHEET' and contains the text '25 0 0'. An arrow points from the text 'Class Period Information' to the bubble 'A' in the top section. Another arrow points from the text 'Unit Code should be bubbled in' to the bubble '0' in the bottom section.

Unit Code should be bubbled in.
If not, see Student ID Sheet for code.

✠ ADMINISTRATION PROCEDURES FOR PRETEST AND POSTTEST

- Give pretest before pilot starts.
- Pass out student answer sheets.
- Assist students as they fill out the bubble sheet. For ID number, use Number assigned to each student on the TECH-know Student Identification sheet.
- Pass out test to students.
- Students can receive NO clarification on test items.
- Monitor students during testing.
- Collect completed answer sheets from students; inspect for stray marks and ensure that the sheets are correctly completed.
- Collect tests.
- Collect scrap paper and pencils.
- Administer posttest and survey after the pilot has been completed.

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✦ HOW TO CODE STUDENT ANSWER SHEETS

You will need to code this information. It is extremely important that information is complete and accurate

- Bubbled information includes
 - Student Name – last name, first name, and middle initial
 - Identification Number (See ID Sheet) Please do not skip spaces.
 - Gender and Grade
 - Date of Birth
- In Column K, bubble in 4 if the student is Special Ed/Handicapped (includes all special codes EXCEPT AG)
- Column L = Career Pathway (HS ONLY)
Bubble 0 if the student is Career Prep
Bubble 1 if the student is College/Tech Prep
Bubble 2 if the student is College/University
- In Column M, bubble in 0 if Economically Disadvantaged (receive free or reduced lunch)
- In Column N, bubble in 2 if Limited English Proficiency
- In Column O, bubble in Ethnicity
- In Column P, bubble in 1 if the student a TSA Member

NAME (Last, First, MI)
DOE JOHN

BIRTHDATE IDENTIFICATION NUMBER SPECIAL CODES
MO DAY YR A B C D E F G H I J K L M N O P Q R S T U V W X Y Z
1 0 1 0 1 4 0 2 5 1

- 1 = Am. Indian
- 2 = Asian
- 3 = Black
- 4 = Hispanic
- 5 = White
- 6 = Other

Must
Hand
Code
Columns
K-P



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✦ AFTER THE POSTTEST AND STUDENT SURVEY

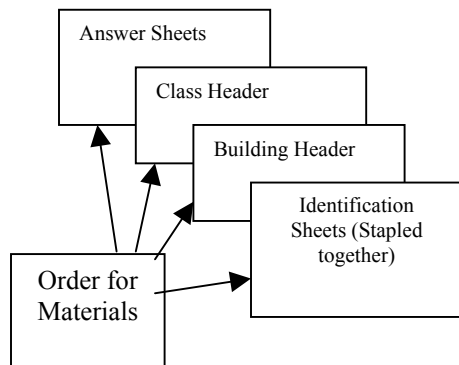
- ORGANIZE answer sheets alphabetically by class. Check to be sure all answer sheets are turned the same way.
- REMOVE paper clips and sticky notes from student answer sheets.
- INVENTORY pre/posttest and survey.
- ORGANIZE pre/posttest and return to TECH-know.
- SCHEDULE make-ups.
- USE CARE in handling answer and header sheets:
 - ⇒ DO NOT bend or fold answer sheets
 - ⇒ DO NOT use staples
 - ⇒ TORN answer sheets WILL NOT scan
 - ⇒ REMOVE “Post-It” notes, paper clips, and rubber bands before sending assessments in to be scanned
- ENCLOSE items in the return envelope provided.
- SEPARATE withdrawn or absent students answer sheets from each class and attach them to the class roster for that class. DO NOT DISCARD.
- INSPECT student answer sheets for incomplete data or stray marks; correct as needed.
- REPACKAGE materials with the Statement of Accountability on top, followed by the Rosters for each class, then student answer sheets with appropriate Building and Teacher Header sheets.



- Organize materials in the following order:

Identification Sheets
Building Header
Class Header
Student Answer sheets

- Illustration of placing test materials in the following order:



NOTE: *If a teacher teaches the same course five times a day, she/he will have one Building Header and five Teacher Headers with student answer sheets behind each Teacher Header.*

- Place test materials in the return envelope.
- Return pretest and posttest to TECH-know upon completion of the unit.

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TECH-know ID Sheet

First two numbers = state

Last two numbers = teacher number

TECH-know Student ID Sheet

Site ID Number 0101
School Name South Brunswick Middle School
Teacher Al Bishop
Unit Structural Challenge
Unit Number 08

Please assign each student involved in the project an identification number.

This will be the number they use when taking their pretest and posttest.

Student ID Number

Student Name

01-01-001	_____
01-01-002	_____
01-01-003	_____
01-01-004	_____
01-01-005	_____
01-01-006	_____
01-01-007	_____
01-01-008	_____
01-01-009	_____
01-01-010	_____
01-01-011	_____
01-01-012	_____
01-01-013	_____
01-01-014	_____
01-01-015	_____
01-01-016	_____
01-01-017	_____
01-01-018	_____
01-01-019	_____
01-01-020	_____

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Purpose/Description of the Text

The purpose of the text material is to provide an engaging/interesting materials for students to read and learn content related to the topic. The text part is 30 pages. One important purpose of the grant is to develop instructional materials that address the standards. It is essential that the sections in the text relate to the math, science, and technology standards and also correlate with the lesson plans.

The flavor of the standards must be captured in the text. The text provides a context for the competitive event. Through the sections in the text, connections are made between the experiences of a particular TSA event and a larger world with rich applications of related content. The text contains "how things work" information with exploded view diagrams, illustrations, and real world examples that help students demystify and understand technology. The text captures insights into the impact of technology on society and stories about people that students can be inspired by.

The content section is particularly important. This section provides the foundational information that students need to know in order to be successful in the competitive event. This information takes its cue from the event, but takes one step back from the event. It is not a step-by-step instruction on how to win the event. It is the identification of the important theories, principles, and content that the event is founded upon. It is the content that students might miss if they just build the project. It is the academic information that makes the competitive event an important and complete educational effort. It is the learning that demonstrates the true educational value of Technology Education and TSA. This section addresses the question -- What is the important content that students should be learning as a result of participation in this competitive event?

Sections of the Text

The Nature of Technology: this section is designed to address this part of the STL.

Scope of the Technology

This is a brief introduction (no more than one page) to the topic. It contains a photo/illustration that represents the topic. It is designed to get middle or high school students interested in the topic.

Summary objectives from the Standards for Technological Literacy

These objectives need to address the content of the unit. They should also use some of the language from the appropriate standards--Math, Science, and Technology. Need a few photos to illustrate the objectives, too.

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Science that Works

This section identifies at least one example of the science embedded in the topic and elaborates. It shows students how science theories are applied in at least one real world example of the topic. From this section students learn that science has application and there is science that is fundamental to their competitive event. It uses some Science Standards language where possible.

Math that Works

This section identifies at least one example of mathematics embedded in the topic. It shows students how mathematics concepts are applied in at least one real world example of the topic. From this section students learn that mathematics can be applied and that mathematics is fundamental to their competitive event. It uses some Mathematics Standards language where possible.

When appropriate, contemporary photos and graphs, charts, and curves are used to illustrate the math connection. Specific examples related to the topic are also used.

Technology that Works

This section identifies at least one real-world example of the technology embedded in the topic. It shows students how technology is used and explains some aspect of technology that is used in the event i.e. a digital camera for digital photography. An exploded view or diagram may also be used to explain how the technology works.

TECH-know Map

This page is designed to show in one illustration of the connections and interconnections of the topic. Rather than have students read all the information this provides everything at a glance. This is also an opportunity to include education/training and technology education teacher as a part of the mind map.

Technology and Society:

Cultural, Economic, Environmental, Ethical, Political, and Social
This section is an opportunity to address this STL standard. It provides the context for the competitive event and the opportunity to establish how the competitive event connects with the big picture of society in the USA and globally.

History That Works

This section is a concise timeline of the most significant developments related to the competitive event. The timeline also includes current and occasionally future projections.

Case Study

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This section provides an interesting real world story from industry from beginning idea to final product. The story provides some insight into the topic and how industry approached the topic, problems encountered along the way, and how they were solved. Also the evaluation of the final product--how was it successful and what would be done. This section includes an example that students can read and connect their experiences with the real world.

The World Of

This is the most important part of the text and contains the content and essential information students need to know to be successful. It is the academic material that is connected to the competitive event.

It is not step-by-step instructions on how to do the event. It correlates with language in the STL and lesson plans. The section contains examples that tie-in with real world applications and addresses The Designed World section of the STL.

Design Brief related to the competitive event

These materials are designed for Technology Education teachers and students who participate in TSA. However, the materials must also be able to be used by technology education teachers who do not participate in TSA. Science teachers, math teachers, and home school teachers are also potential users of the units.

The design brief reflects the TSA competitive event for those teachers/students who will not compete in a TSA event. It is not the TSA event, but is one step back. It develops a problem that students can substitute for the TSA competitive event and still retain the problem solving character of the unit.

Connections To Deepen Meanings

Some challenging ideas, questions, and resources that encourage students to explore and see the connections on their own are contained in this section.

Everyday People

This section is a story about a real person that students can identify with. Someone within reach with a message that may inspire them. Someone about whom they could say "I could do that ..." A story about a real person with insights about what it took for them to get where they are now and how to be successful.

Key Terms

This section contains the essential terms and definitions associated with the topic.

Sections in the Teacher Resources

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Implementation Method

Suggestions for how to teach this unit. Also ideas for having students elaborate/develop their ideas for competition.

Lesson Plans for the teacher including the Standards

Standards addressed must be identified. One foundation of the project is correlation of the instructional materials with the standards. The STL are essential. Appropriate Science and Math standards are also important.

Activities related to the concepts and building up to the TSA competitive event

Ideas, tips, and information related to how students can be successful in academic competitions.

Resources and Materials needed

Teachers cannot be expected to go to other materials to get extra information. The essential content to teach the unit is contained in this text. A list of supplies and software/equipment is included in this section.

PowerPoint presentations

Essential concepts/information related to concepts in module are included in the presentations.

Student Worksheets

Essential worksheets to compliment the lesson plans and help students gather information relevant to the event are included.

Pre-test/ Posttest based on the Standards

- 15 technology based (STL) questions related to the content in the unit.
- 5 science based (standards) questions related to the content in the unit.
- 5 math based (standards) questions related to the content in the unit.

Rubric for grading

Grading rubrics that address STL concepts are included.
Metacognitive questions.

Background information to be successful

Ideas, tips, and information related to how students can be successful in academic competitions is included in this section.

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TECH-know Information Sheet

Instructional Materials for Technological Literacy

Module Interested in Field Testing: _____

Experience: _____

Social Security Number: _____

First Name: _____

Last Name: _____

Email Address: _____

School Name: _____

School Address: _____

School Telephone: _____

School Fax: _____

Principal's Name: _____

Home Address: _____

Home Telephone: _____

The TECH-know Project



Photo/Computer Project Release Authorization

I give permission for my child's, _____, photographs and/or computer project to be used without compensation by TECH-know and North Carolina State University for web pages, advertising, and/or educational purposes.

I also give my permission for my child's, _____, photograph and/or computer project to be used by North Carolina State University and am willing to release this into the public domain. I understand that no monetary compensation will be given for the use of the materials.

Student's Full Name

Guardian/Parent's Full Name

Guardian/ Parent's Signature

Date

Student's Signature

Date

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PRINCIPAL'S LETTER

September 9, 2003

«Principals_Name»
«School_Name»
«School_Address»
«School_City», «School_State» «School_Zip»

Dear «Principals_Name»,

I am pleased to have a member of your Technology Education faculty, «First» «Last», working with the TECH-know Project. This project is a significant national effort funded by the National Science Foundation. The purpose of the grant is to develop instructional materials for technology education. Our work began at North Carolina State University in July 2001 with a weeklong workshop. «First» has agreed to pilot these instructional materials that relate to a selected TSA competitive event. These instructional materials will comply with the new Standards for Technological Literacy, National Science Education Standards, Principles and Standards for School Mathematics, and state curriculum guidelines. They are being developed in cooperation with Thomas S. Shown, Consultant for Technology Education, North Carolina Department of Public Instruction and Donovan Bowers, Consultant for Technology Education, Oklahoma Career and Technical Education.

The TECH-know Project is a wonderful and unique opportunity to improve the quality of instructional materials for technology education, and will provide recognition for your school and professional development opportunities for «First». «First» will be asked to continue to revise these instructional materials, offer feedback, and provide personal and student reflections related to the implementation of this module by December 20, 2005.

Please congratulate «First» «Last» for being selected to participate in the TECH-know Project. This is an honor, and the technology education students will be the primary beneficiaries of the instructional materials that will be developed. Thank you for your support. Your signature below recognizes the participation of «First» «Last».

Sincerely,

Richard Peterson
Associate Professor
Technology Education

Principal's Signature

Date

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Field Test Demographics 1.3

SCHOOL _____ PILOT TEACHER _____
 MODULE _____ DATE _____

TEACHER INFORMATION

Gender	Male Female
Age Range	21-30 31-40 41-50 51-55 over55
College Degree BS MS PhD / Field	BS/MS/PhD Field:
Area Certified	
Number of Years Teaching	
Number of Years Teaching Technology	
Are you lateral entry? If so from what area?	Yes No Area:
Classes Teaching during 2001-2002 school year	
Member of ITEA and/or ACTE	Yes No
Number of Years as a member	
TSA Advisor	Yes No
Number of Years as a TSA Advisor	
Primary Method of Instruction	Modular _____ % and/ or Traditional _____ %
Module Piloting	
Special Accomplishments (awards, recognition, etc)	

SCHOOL INFORMATION

School Population and Grades Represented	
Type of School	Rural Urban Suburban
Is your school a low wealth school?	Yes No
Years of Attendance at TSA State and Nat'l. Conference	State = National =

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PILOT CLASS INFORMATION

Number of Students in Pilot Class	
Class in which the module being is piloted in?(i.e. Fundamentals, Exploring, Communications, etc.)	
Time when class is taught	
Grade Level	
Number of Males	
Number of Females	
Number of Students in Class considered Special Populations	AG= AD= ED= ESL= LD= TMD= BED= OHI= OCS= SPMD= 504= Other =
Ethnic Breakdown Students	African American = Hispanic/Latino Asian = Caucasian = Native American Other =

Number of Students in Pilot Class	
Class in which the module being is piloted in?(i.e. Fundamentals, Exploring, Communications, etc.)	
Time when class is taught	
Grade Level	
Number of Males	
Number of Females	
Number of Students in Class considered Special Populations	AG= AD= ED= ESL= LD= TMD= BED= OHI= OCS= SPMD= 504= Other =
Ethnic Breakdown Students	African American = Hispanic/Latino Asian = Caucasian = Native American Other =

Special Populations Classifications

AG = Academically Gifted
 AD = Academically Disadvantaged (2.0 GPA or lower)
 ED = Economically Disadvantaged
 ESL= English Second Language
 LD = Learning Disabled (Reading/Math)
 EMD = Educable Mentally Disabled
 TMD = Trainable Mentally Disabled

BED = Behaviorally-Emotionally Disabled
 OHI = Other Health Impaired
 OCS = Occupational Course of Study Program (exempt from testing)
 SPMD = Severe/Profound Mentally Disabled
 504 = student has an accommodation plan on file

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Field Test Summary Checklist

1 – strongly disagree 2 – disagree 3 – undecided 4 - agree 5-strongly agree

SCHOOL _____ PILOT TEACHER _____
MODULE _____ DATE _____

- 1 2 3 4 5 This unit was usable
- 1 2 3 4 5 This unit would be used again
- 1 2 3 4 5 This unit was well-received by the students
- 1 2 3 4 5 The students appeared to enjoy this unit
- 1 2 3 4 5 The pre and post test scores showed gain
- 1 2 3 4 5 This unit was easy to adapt to classroom needs
- 1 2 3 4 5 This unit had math and science concepts well-integrated
- 1 2 3 4 5 My school's science department was involved in this unit
- 1 2 3 4 5 Key science concepts were written, used, and understood
- 1 2 3 4 5 Key math concepts were written, used, and understood
- 1 2 3 4 5 Key technology concepts were written, used, and understood
- 1 2 3 4 5 This unit activity was applicable to TSA
- 1 2 3 4 5 This unit can produce a TSA competitive event entry
- 1 2 3 4 5 This unit would be useful to new teachers
- 1 2 3 4 5 This unit would be useful to existing teachers
- 1 2 3 4 5 The units' activities were age-appropriate
- 1 2 3 4 5 This unit had well-written materials
- 1 2 3 4 5 The teacher materials were well-written
- 1 2 3 4 5 The student materials were well-written
- 1 2 3 4 5 The unit has the potential to influence student's career choices
- 1 2 3 4 5 This unit will have a positive impact on students' life skills
- 1 2 3 4 5 This unit will have a positive impact on students' academic skills
- 1 2 3 4 5 Parents commented about this unit
- 1 2 3 4 5 This unit mapped to the standards
- 1 2 3 4 5 The unit utilized problem-based inquiry guided learning
- 1 2 3 4 5 This unit used creativity and problem solving skills
- 1 2 3 4 5 This unit can be completed within 15 days
- 1 2 3 4 5 Pre-Post test scores will be available
- 1 2 3 4 5 Performance Assessment Rubrics will be created
- 1 2 3 4 5 The 15 day plan will be created
- 1 2 3 4 5 The lesson plans will be developed
- 1 2 3 4 5 Anecdotal stories will be developed
- 1 2 3 4 5 Student worksheets will be developed
- 1 2 3 4 5 PowerPoint presentations will be developed
- 1 2 3 4 5 The implementation method will be described

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FOLLOW-UP REFLECTIONS FOR FIELD TEST TEACHERS

Unit: _____
Teacher: _____
School: _____

Project successes/insights (i.e. things that went well, things that you noticed from the students or in regards to your teaching during the pilot)

Strength(s) of the materials-

The best part of the project was ...

Anecdotal stories ...

Things that did not go well, areas of needed improvement. Be specific.

The next step: considerations/issues for the future.

Overall suggestions for project

How can Tech-know help?

Are there things we can supply, clarify, etc.?

Describe your greatest contribution to the materials during this field test this year.

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Describe how you think the materials tie into the Standards for Technological Literacy and TSA event.

Were all the major concepts related to the event and STL addressed? If not, what do you feel was left out and how and where can it be added?

Have you returned all the materials to TECH-know? Yes No
If not when do you anticipate returning them to TECH-know? _____

The TECH-know staff appreciates all your hard work and involvement in the project.

Signature

Date

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