

Board of Education Agenda Item

Item: _____

Date: June 19, 2008

Topic: First Review of a Proposal to Establish a Governor's Career and Technical Academy: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE)

Presenter: Dr. Linda M. Wallinger, Assistant Superintendent for Instruction
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Origin:

Topic presented for information only (no board action required)

Board review required by

State or federal law or regulation

Board of Education regulation

Other: Process for Initiating a Governor's Career and Technical Academy Approved by the Board of Education on November 29, 2007

Action requested at this meeting Action requested at future meeting: _____ (date)

Previous Review/Action:

No previous board review/action

Previous review/action

date _____

action _____

Background Information:

Virginia is one of six states to receive a grant from the National Governors Association (NGA) Center for Best Practices to improve science, technology, engineering, and mathematics (STEM) education. The development of Governor's Career and Technical Academies is one of the major initiatives of the grant.

Virginia's Governor's Career and Technical Academies are programs designed to expand options for the general student population to acquire science, technology, engineering, and mathematics (STEM) literacy and other critical skills, knowledge, and credentials that will prepare them for high-demand, high-wage, and high-skill careers. Partnerships establishing academies must include at least one public

school division, business and industry, and postsecondary education. Six partnerships have been awarded grants to assist with the creation of Virginia's first Governor's Career and Technical Academies.

On November 29, 2007, the Board of Education approved the criteria to establish a Governor's Career and Technical Academy. Subsequently, on March 19, 2008, the Board approved the standards for the Governor's Career and Technical Education Exemplary Standards Awards Program, in which all Career and Technical Academies must participate.

As required by the Board of Education, the State Council of Higher Education in Virginia (SCHEV) has reviewed the attached proposal and recommends that the Board approve the proposal. Staff at the Virginia Department of Education (DOE) have also reviewed the proposal in the context of the Board's criteria. An executive summary of the proposal is contained in Attachment A. Attachments B and C contain the reports from the reviews by SCHEV and the DOE. Attachment D contains the complete proposal.

Summary of Major Elements:

The Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Academy has an active partnership consisting of representation from Russell County Public Schools, University of Virginia's College at Wise, local government, business and industry. The STEM for LIFE Academy will be located in Russell County Public School's middle and high schools, the Russell County Career and Technical Center, and the University of Virginia's College at Wise Technology Center.

The STEM for LIFE Academy has a very strong middle school component with the goal of having all students complete Algebra I by the end of eighth grade. A strong mathematics background in the middle grades will prepare all Russell County students for rigorous coursework in high school. The coursework in the Academy will focus on three pathways: Engineering and Technology, Science and Mathematics, and Information Support and Services.

A major focus of the Academy is to build parent and community awareness and support. High school guidance counselors will receive extensive training so they can educate parents on the importance of postsecondary education in a rural area where STEM job opportunities are a recent addition to the economic landscape.

Superintendent's Recommendation:

The Superintendent of Public Instruction recommends that the Board of Education waive first review and approve the proposal to establish the Governor's Career and Technical Academy: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE).

Impact on Resources:

Russell County Public Schools has received a planning grant through Virginia's participation in the National Governors Association's STEM Center Grant Program. Upon approval of the partnership's proposal by the Board of Education, the Department of Education will award an implementation grant to assist with further development of the program. The planning and implementation grant funds are available on a one-time basis only to the six partnerships that were selected through a grant competition associated with the National Governors Association's STEM Center Grant Program. Funding beyond those available through the grant must be provided at the local level.

Timetable for Further Review/Action:

Governor's Career and Technical Academies funded through the National Governors Association's STEM Center Grant Program must be in operation by the beginning of the 2008-2009 academic year.

STEM for LIFE Governor's Academy Executive Summary

Partnership Members:	Russell County Public Schools; Southwest Virginia Community College; The University of Virginia's College at Wise; Virginia Economic Development Program; Bostic, Tucker and Company; Virginia Coalfield Economic Development Authority; Appalachian Electric Power Company; Southwest Virginia Public Education Consortium; Town of Lebanon
Lead Entity:	Russell County Public Schools
Fiscal Agent:	Russell County Public Schools
Contact Person:	Dr. Lorraine C. Turner, Superintendent Russell County Public Schools 276-889-6518 lturner@russell.k12.va.us
Academy Location:	STEM for LIFE Governor's Academy P.O. Box 8 One School Board Drive Lebanon, Virginia 24266
Number Students Served:	284 sixth graders in 2008-2009, 284 seventh graders in 2009-2010, 319 eighth graders in 2010-2011, and 425 high school students taking dual enrollment courses from 2008 through 2012.
Career Pathways:	Science and Mathematics Engineering and Technology Information Support and Services
Academy Goals and Description:	Russell County Public Schools, in partnership with business, industry, higher education, and local government, has developed the Science, Technology, Engineering and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Governor's Career and Technical Academy. The Academy will provide opportunities for all students in grades six through twelve to learn about STEM careers that are available locally, regionally, and nationally. In addition, the Academy will develop the academic skills and competencies necessary to prepare students for the work force and postsecondary education in STEM fields. The Academy pathways emphasize both academic and hands-on experiences. To gain parental and other local support for the Academy and its goals, career awareness sessions for parents and community members will be held. It is the philosophy of the STEM for LIFE Academy that a team effort is essential to the success of this program and that ongoing communication is key to its sustainability.

It is the intent of the STEM for LIFE Academy founders to expand into the surrounding school divisions and to produce a pipeline through which all students in southwest Virginia school divisions have access to STEM opportunities.

Highlights of the Program:

- STEM for LIFE will begin in the sixth grade with students enrolling in the Gateway to Technology sequence, the middle school component of Project Lead the Way, which includes courses in Design and Modeling and the Magic of Electrons. Keyboarding classes will also be required for two nine-week periods.
- All seventh-grade students will continue to develop keyboarding skills. They will enroll in the continuation of the Gateway to Technology sequence through courses in Science of Technology, Automation of Robotics, and Flight and Space.
- A summer program for students in grades seven, eight, and nine will afford students the opportunity to study in the STEM areas and work on an original project.
- Through the Kuder career assessment program, each student will be assessed, explore jobs that align with identified areas of interest, and complete a job interview planner.
- A transition plan for students entering high school will be in place for seventh- and eighth-grade students to assist in a successful high school transition.
- All high school students in the Academy will be required to complete a service-learning project in addition to the internship, mentoring or job shadowing experience.
- Parents will receive updates and projections about career preparation and opportunities which are available locally, regionally, and statewide.
- Dual enrollment courses will be offered through Southwest Virginia Community College either with instructors at the high school or through distance learning.
- Students who graduate from one of the STEM for LIFE Academy pathways will meet necessary requirements in mathematics, science, and career and technical education to qualify for Technical and Advanced Technical diplomas.
- Extensive professional development for all academic and career and technical education teachers, guidance counselors, and administrators responsible for aspects of the Academy began in the spring of 2008 and will continue throughout the first year of the Academy.

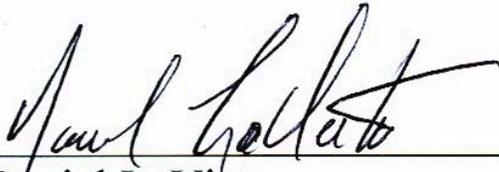
**The State Council of Higher Education for
Virginia**

**Review of Governor's Career and Technical
Academy Proposal**

Name of Lead Entity on Proposal: Russell County Public Schools

Date of Review: May 22, 2008

The State Council of Higher Education for Virginia recommends approval of the STEM for LIFE Governor's Career and Technical Academy as a Governor's Career and Technical Academy.



Dr. Daniel LaVista
Executive Director
State Council for Higher Education

5.23.08

Date

State Council of Higher Education for Virginia
Governor's Career and Technical Academies Postsecondary Curriculum Review Checklist

Academy Name	Collaborating Partners	Total Funds Requested	Allocated Funds for Postsecondary Component
Stem for Life Governor's Career and Technical Academy	Russell County Public Schools, UVA at Wise, Southwest Virginia Community College, People Inc. of Southwest VA (see appendix G for complete list)	\$100,000	NA

Criteria

Category 1: Postsecondary Accreditation and Approvals

YES/NO

- YES **Postsecondary institution is appropriately accredited**
- YES **Proposed postsecondary program has specialized accreditation, if applicable**
- YES **Proposed postsecondary program is SCHEV and/or VCCS approved**
- NA **Proposed postsecondary program will be seeking SCHEV and/or VCCS approval**

Category 2: Governor’s Career and Technical Academy Requirements

YES/NO

- YES **Evidence of a partnership with a postsecondary institution, business, or industry, and demonstrated roles for each entity**

- YES **Offers at least one career pathway in a field identified by a statewide authority or organization as a strategic growth area for Virginia**

- YES **Offers at least one career pathway addressing regional and local work force demand in a high-wage, high-skill field identified by employers and work force officials**

- YES **At least one of the two career pathways is in a STEM-related field**

Category 3: Postsecondary/Business Component Requirements

YES/NO

- YES **Provides opportunities for students to earn industry credentials, state licensure, associate or baccalaureate degrees, and college credit for work-based experiences**

- YES **Articulates with baccalaureate programs or to higher levels of training or professional credentialing**

- YES **Demonstrates P-16 integration including curriculum development with high school, college, and university faculty (desired)**

Includes college faculty as adjunct faculty of the academy (desired)

- YES **Provides opportunities for students to participate in work-based experiences**

Category 4: Academic Quality

YES/NO

- YES **Requires appropriate postsecondary faculty qualifications**
- YES **Requires faculty to hold industry certification, where necessary**
- YES **Planned professional development for faculty and administrators**
- YES **Planned systematic program and learning outcomes assessment**

Category 5: Administration and Funding

YES/NO

- YES **Funding is sufficient to support effective administrative and operational needs including materials, administrative personnel, and facilities**
- YES **Funding is sufficient to sustain faculty salaries, curriculum development costs, and instructional materials and delivery**
- YES **Facilities possess the necessary physical attributes to deliver the instructional program (classroom space, technology, labs, equipment)**

Comments

The proposed academy has strong potential to solidify high tech industries in Russell County. Broad representations of stakeholders have been involved in the planning, and there is a strong plan for early involvement of students in career awareness education.

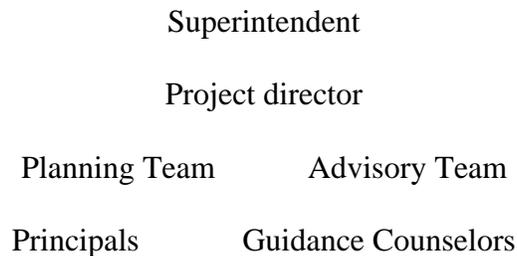
Russell County responses to additional questions from SCHEV are attached.

**Responses to SCHEV Request for Additional Information
STEM for LIFE Academy
May 21, 2008**

1. Provide an expanded explanation of how the Academy will be managed, including a more detailed budget narrative of personnel costs and a brief position description for the project director.

Management of the STEM for LIFE Governor’s Academy will be the responsibility of the project director. The director will work with principals and guidance counselors to communicate, plan, and implement all aspects of the program. The director will also plan and arrange for the delivery of professional development for teachers and counselors. Any issues that develop in the Academy will be resolved with the superintendent or with the advisory council of the Academy. The planning committee and the advisory council will set policy in accordance with Russell County Public Schools Board Policy to oversee the STEM for LIFE Academy.

The hierarchy of communication and responsibility is as follows:



Science Teachers - Technology Teachers - Engineering Teachers - Mathematics Teachers

The project director will:

1. Involve the community and school staff in preparation and implementation of the STEM grant;
2. Coordinate the services of all persons who work with the STEM for LIFE Academy and ensure that instructional materials and equipment are available to provide learning experiences in the STEM areas;
3. Oversee the maintenance of accurate recordkeeping, file reimbursements and reports as necessary; and
4. Collect data from the Academy for evaluation of the program, including the collection of all data required by the Virginia Department of Education.

The Academy will be managed on a daily basis by the project director. Input from the division superintendent, planning committee, advisory council, and the Academy’s partners will play an important role in providing direction and focus.

The project director is currently completing her dissertation for a Ph.D. in career and technical education and has extensive background and years of experience in education, instructional technology, and instructional design. In addition, for five years

she co-directed a regional systemic initiative funded by the National Science Foundation (NSF) in southwest Virginia which focused on many of the goals of the Academy, including STEM.

The role of the project director will be to:

- Ensure that the described goals of the Academy are met;
- Maintain communication with the division superintendent, partners, committees and councils;
- Collect data and provide for ongoing evaluation of the Academy;
- Provide teachers, counselors, students, and parents with frequent updates about work force needs and career opportunities locally and regionally;
- Provide for professional development for all teachers and counselors in the academy; and
- Deliver reports at all meetings with the superintendent and partners regarding Academy accomplishments and student performance.

Additions to the detailed narrative regarding personnel costs:

\$41,000 – Total of Personnel

\$15,000 – A portion of director’s salary

\$15,000 – A portion of one new Gateway to Technology Teacher

\$11,000 – A portion of one experienced teacher for Gateway to Technology

2. The application requirements state that students need a minimum C- average to be admitted. What type of in-depth analysis will the committee employ to account for differences in curriculum that individual applicants may bring to the process? For example, an applicant with a C- in Algebra I is very different from one who receives a C- in Calculus. For some students, the C- average may be setting the bar too low to ensure success in the more rigorous academy curriculum.

After reconsidering application requirements, Russell County Public Schools has decided to drop the C- average requirement and open the Academy to all students who are passing. The school division thanks SCHEV for bringing this to our attention. Inclusion of all students will align with the goals of the STEM for LIFE Academy.

3. Provide an expanded explanation of career assessment tools and activities for middle school students beyond the Kuder. Include how an expanded model would aid students not indicating interests in the industries targeted in the region, as well as students from special populations.

The proposed model for middle school students is focused on introducing students and their parents to the needs of the work force: locally, statewide and nationally. The intent is to provide opportunities for middle school students to enroll in courses, beginning in sixth grade, which will help them to develop problem solving skills, encourage creativity and inventiveness, and provide introductory coursework in technology and engineering. The Kuder assessment will be used to help students identify areas of interest and provide direction for study. Middle school counselors will work closely with students and parents to ensure that students understand their options. The Kuder assessment is designed to be assistive. While the Kuder assessment will be the primary tool for identification of areas of interest, guest speakers from local and regional businesses and career awareness events will provide additional information for students about work force opportunities and career options for the purpose of guiding students in their career choices. Students will participate in career fairs, tours of local businesses, and career exploration in core classes.

While one of the goals of the STEM for LIFE Governor's Academy is to add to the local work force, Russell County Schools understands that some of its students will elect to work outside of the region. Based on projections of work force needs in Virginia provided by the Virginia Employment Commission (2008) which indicate a high need for workers with strong science, technology, engineering, and mathematics skills, the anticipation is that coursework included in the Academy will enable graduates to successfully find work both locally and outside the region. The Academy will be available to all students, including students from special populations. As part of the teacher training program to prepare teachers for the Academy, training sessions have included all regular classroom teachers and all special education teachers.

4. Provide an expanded description of support services to include services that might be provided for students taking courses online. Additionally, estimate how many work-based experiences at local businesses will be available for students per school year.

All students who enroll in online courses will be monitored by a facilitator for the purpose of providing support, clarification about course goals, and answers to content questions. All online courses will be available during the regular school day, and facilitating teachers will be on hand to ensure that technology is working appropriately and to give assistance both instructionally and technologically as needed.

In high school, students will have a minimum of one work-based experience per year through local businesses, including opportunities for job shadowing, internships, and mentoring. In middle school, students will visit a minimum of two local businesses per year and have opportunities to talk with local business representatives.

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

Final Review

Title of Proposal: Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE)

Lead Entity for Proposal: Russell County Public Schools

Date of Review: May 5, 2008

**Virginia Department of Education
Governor's Career and Technical Academy
Proposal Review Checklist**

I. Partnership Capacity

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. An active, ongoing planning committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity. At a minimum, members must represent K-12 education (superintendent or designee), higher education, and business and industry. All partners must be represented on the committee.	X	X		5/5/08 A signature sheet is missing for Brian Hooker. 5/15/08 This omission has been corrected.
B. An advisory committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity.	X	X		5/5/08 David Prior has no signature sheet. 5/15/08 This omission has been corrected.
C. A written memorandum of agreement among school divisions, local businesses, postsecondary institutions, and any other partners that outlines ways in which community resources will contribute to the Governor's Career and Technical Academy to broaden the scope of students' educational experiences.	X			

Criteria	Documentation			Comments
	Full	Partial	None	
D. A statement of assurances that the Governor's Career and Technical Academy Planning Committee has reviewed provisions of <i>Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies</i> and agrees to follow the guidelines set forth in the document (see appendix).	X			
E. A statement of assurances that, if applicable, an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs (see appendix).	X			
Comments:				

II. Need/Rationale for the Academy

Partnerships desiring to implement a Governor's Career and Technical Academy shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. Demonstration of the need/rationale for the Academy. This statement should be concise and state the major reasons to have a Governor's Career and Technical Academy, including need at the state, local and/or regional levels.	X			
B. A description of the enhanced or additional offerings in science, technology, engineering, and/or mathematics (STEM) that will meet the need described above.	X			Algebra I for all eighth graders is an ambitious goal. The middle school program seems very strong.

Criteria	Documentation			Comments
	Full	Partial	None	
C. A fiscal agent that is a public entity, including a certification that the entity is willing and able to serve in that capacity.	X			
Comments:				

III. Program Description

Each Governor’s Career and Technical Academy planning committee shall develop cooperatively with local school divisions, business, community, and higher education partners and have available for review and dissemination, a program description that includes:

A. A statement of program goals addressing the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Rigorous academic content in career and technical instruction;	X			
2. An emphasis on STEM career pathways;	X			
3. Individualized high school plans to ensure course selections that are aligned with students’ transition and career goals after high school;	X			
4. Evidence that graduates will complete a college and work readiness curriculum, minimally at the level specified for Commonwealth Scholars Course of Study (State Scholars Core) with the possibility of pre-approved substitution of equivalent courses where there may be more relevant course selections for a particular career pathway;	X	X		5/5/08 Commonwealth Scholars is not correctly addressed. 5/15/08 This has been corrected through the program of studies for each pathway.

Criteria	Documentation			Comments
	Full	Partial	None	
5. Evidence that graduates will qualify for the Technical and/or the Advanced Technical Diplomas; and	X			
6. Incorporation of Virginia's Workplace Readiness Skills.	X			
Comments:				

B. A statement of program objectives and performance measures to:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Improve academic achievement of Academy students;	X			
2. Increase completion of dual enrollment courses;	X			
3. Provide work place readiness experiences for students through strong partnerships with businesses;	X			
4. Increase high school graduation rates;	X			
5. Reduce dropout rates;	X			
6. Increase enrollment and retention in postsecondary education;	X			
7. Increase the proportion of students completing a college and work place ready curriculum in high school;	X			
8. Reduce the proportion of students requiring remediation in college;	X			
9. Increase the number of industry certifications awarded to high school students; and	X			

Criteria	Documentation			Comments
	Full	Partial	None	
10. Increase the number of graduates employed in high-wage, high-demand and high-skill careers.	X			
Comments:				

C. A brief description of the proposed program, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Site location;	X			
2. Number of students to be served;	X		X	5/5/08 The number of students served is not mentioned in the proposal. 5/15/08 This now appears in the proposal.
3. Grade levels;	X			
4. General curriculum design;	X			
5. List of courses to be delivered;	X			
6. Description of how/where the courses will be delivered. Courses may be delivered on a high school, technical center or community college campus, online, or in other innovative ways; and	X			
7. Designation of full-day or part-day, academic-year program.	X			
Comments:				

D. Evidence of participation in the Governor’s Exemplary Standards Award Program for Career and Technical Education.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Program and course descriptions

E.1. At least two well-articulated career pathways must be included that meet the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #1: Engineering and Technology				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor’s and graduate levels. These pathways may be in the same or different career clusters.	X			
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and motor sports, as well as modeling and simulation and nanotechnology or	X			

Criteria	Documentation			Comments
	Full	Partial	None	
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. At least one pathway must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #2: Science and Mathematics				
a. Each career pathway must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelor's and graduate levels. These pathways may be in the same or different career clusters.	X			
b. Must be in a field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership or the Virginia Research and Technology Advisory Commission, as a strategic growth area for Virginia. Examples include biosciences, information technology, automotive technology and	X			

Criteria	Documentation			Comments
	Full	Partial	None	
motor sports, as well as modeling and simulation and nanotechnology, <u>or</u>				
c. Must address regional and local work force demand in a high-wage, high-skill field as identified by employers and work force officials.	X			
d. Of the two pathways described, at least one must be in a STEM-related field. This career pathway should drive the innovative capacity of the region and/or the state.	X			Two of the pathways are in the STEM cluster.
e. Additional career pathways may address one of the areas described above, or an area identified by the partnership as an area of interest, growth, or expansion for students in the service area of the Academy.	X			Information Support and Services is a third pathway addressed by this Academy.
Comments:				

E.2 List of all requirements for successful program completion.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E.3 Academy graduates must achieve one or more of the following benchmarks:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as CLEP examinations, collaboratively designed or mutually approved end-of-course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; <u>or</u>	X			
b. Earn at least 9 transferable college credits as defined in the Early College Scholars program (includes dual enrollment, AP and other options); <u>or</u>	X			This Academy will require students to have 15 credits.
c. Earn an Associate Degree.				This is not required but is an option for students in this Academy.
Comments:				

E.4 Significant work-based experience must be included representing additional instruction or training beyond the classroom such as:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Cooperative Education; or	X			
b. Internships; or	X			
c. Job Shadowing; or	X			
d. Mentorships; or	X			
e. Project-based learning; or	X			
f. Service learning; or	X			
g. A combination of the above.				
Comments:				

F. Length of program and daily schedule: Governor’s Career and Technical Academies are defined by program content, not by the location or delivery system of courses. Evidence of the following must be submitted:

Criteria	Documentation			Comments
	Full	Partial	None	
Designation of full-day or part-day, academic-year program.	X			
Comments:				

G. Assurance from the fiscal agent that operating funds and facilities are available to support the Governor’s Career and Technical Academy and are adequate to meet the needs of the program.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Materials and equipment to be provided to accomplish program goals and objectives.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

I. Evidence of an internal evaluation process to effect program improvement, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. A review of the Academy’s policies, procedures, and outcomes;	X			
2. A review of the program design and instructional delivery;	X			
3. Consideration of feedback from students, staff, parents, the community, and partnership members; and	X			
4. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.	X			
Comments: The internal evaluation seems strong. Everyone associated with the Academy has a venue to provide input.				

IV. Administrative Procedures

Each Governor's Career and Technical Academy must develop and maintain procedures developed cooperatively with participating partners. There should be evidence of procedures in the four areas that follow.

A. Partnerships - The role of business and industry, public school divisions, and postsecondary institutions in the partnership. The role of workforce and economic development entities should also be included if they are among the partners.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

B. Student recruitment, selection criteria, and admissions.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

C. Code of student conduct and attendance.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

D. Transportation provided by the school division or consortium that is in compliance with all applicable federal and state regulations.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E. Staff recruitment, selection, and assignment - The Governor’s Career and Technical Academy shall hire staff members who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

F. Staff development - The program will provide appropriate staff training in addition to staff planning time.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments: The professional development timeline provided in Appendix A is very detailed.				

G. Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employing Academy personnel.

	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Parent, student and community involvement.

Criteria	Documentation			Comments
	Full	Partial	None	
1. Preparation for entering the Academies should begin by eighth grade.	X			
2. Students, parents, teachers, and counselors should work collaboratively to:	X			
a. Complete career interest inventories;				
b. Prepare academic and career plans outlining an intended course of study in high school;	X			
c. Review multiple postsecondary pathways and the steps required to pursue them;	X			
d. Participate in career assessments to identify areas students should strengthen to qualify for their selected pathways; and	X			
e. Discuss available diplomas, seals, and other recognitions including admission to specialized programs such as Governor's Academies.	X			

I. Documentation of insurance, budget, and other fiscal information.

	Documentation			Comments
	Full	Partial	None	
Insurance	X			
Budget (from appendix)	X			
Budget Narrative	X			
Other	X			
Comments:				

Science, Technology, Engineering,
and Mathematics for Lifelong
Initiatives for Education
(STEM for LIFE)
Governor's Career and Technical
Academy

Proposal by Russell County Public
Schools

**Science, Technology, Engineering, and Mathematics for Lifelong
Initiatives for Education (STEM for LIFE)
Governor’s Career and Technical Academy
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Introduction

Russell County Public Schools, in partnership with business, industry, higher education, and local government has developed the Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Education (STEM for LIFE) Governor's Career and Technical Academy. The Academy will provide opportunities for all students in grades six through twelve to learn about careers in science, mathematics, engineering and technology (STEM) that are available locally, regionally, and nationally. In addition, it will help to develop academic skills and competencies that will prepare them for the work force and postsecondary education. Using information from a Kuder career assessment, an inventory designed to identify students' areas of career interest, each student will select a career pathway that emphasizes both academics and hands-on experiences. These experiences are designed to promote readiness for and success in science, technology, engineering, and mathematics.

The STEM for LIFE Academy will provide training opportunities for school counselors and teachers. Career awareness sessions for parents and community members will be an integral component. It is the philosophy of the Academy that a team effort is essential to the success of this program and that ongoing communication is key to its sustainability.

Students will enter the Academy in sixth grade and progress in their selected pathways through twelfth grade. In high school, students will have opportunities for dual enrollment courses through Southwest Virginia Community College and the University of Virginia's College at Wise. Initially, the Academy programs will be open to students in Russell County only. However, the long-range goal is to expand the Academy to

surrounding school divisions so that students in all of southwest Virginia have access to STEM opportunities.

Rationale

In order to provide a work force of problem solvers, innovators, inventors, and committed workers, a STEM curriculum must be developed for every student in grades K-12. The Governor's Career and Technical Academy, STEM for LIFE, will feature a well-articulated curriculum for grades 6-12 in two career clusters: Science, Technology, Engineering, and Mathematics; and Information Technology. The STEM for LIFE Academy will be built on a foundation of courses, programs, business partnerships, and cooperative work with Southwest Virginia Community College (SVCC) and the University of Virginia's College at Wise, a partnership currently existing in Russell County.

Two information technology companies in Russell County, CGI-AMS, Inc., and Northrop Grumman, are in the process of hiring four hundred workers each. These two companies recently located to Russell County. Combined with other more established local businesses such as Alcoa Wheels Industry, International Automotive Components (IAC), Appalachian Electric Power Company, and AT and T, the local schools have begun to examine the curriculum in the area of Information Technology to determine if it meets the needs of future employers in the business and industry sectors in Russell County. With the help of business partners, the community college, and the University of Virginia's College at Wise, vital changes are already taking place. With input from its partners, Russell County Schools will strengthen the curriculum in grades 6-12 and offer

all students the opportunity to participate in classes that will enable them to compete for jobs in a global economy.

The three career pathways offered by the STEM for LIFE Academy (Science and Mathematics; Engineering and Technology; and Information Support and Services) have been identified by the Virginia Economic Development Partnership as strategic growth areas for Virginia. Virginia has one of the largest concentrations of high technology industries in the nation, with over 175,000 people in 6,100 establishments.

The Virginia Career Prospects Web site provides employment projections in Virginia through 2012 (<http://www.careerprospects.org>):

Virginia Career Prospects in Virginia Through 2012
Table 1

Type of Position Needed	Positions by 2012	Annual Average Positions Open
Multimedia Artists and Animators	280	9
Graphic Designers	5,218	16
Desktop Publishers	1,137	45
Prepress Technicians and Workers	2,199	55
Computer Specialists	199,350	7,941
Computer Information Scientists, Researchers	1,805	43
Computer Programmers	28,671	1,115
Data Base Administrators	4,538	121
Network and Computer Systems Administrators	18,451	754
Network Systems and Data Computer Analysts	9,308	445
Computer Operators	4,014	97

Many of these positions are currently available in Russell County. During the next five to ten years, there is an anticipated increase in retirements in many of the fields mentioned.

Growth Occupations for Russell County (Virginia Employment Commission, 2006)
Table 2

Type of Position Needed	Projected Number by 2014
Network Computer Systems Administrators	36
Computer Information Systems Management	37
Market Research Analysts	28

New Hires	Projected Number by 2014
Manufacturing	5,001
Information	1,353
Professional and Technical	2,273

Table 2 shows growth occupations for Russell County. As business and industry move into the region and bring with them the need for a highly-skilled work force, the STEM for LIFE Governor's Academy will provide opportunities for southwest Virginia students to acquire skills for today's jobs and skills that can be applied to jobs of the future. Through our three pathways of Engineering and Technology, Science and Mathematics, and Information Support and Services, we will meet the needs identified.

Program Description

All STEM for LIFE career and technical education (CTE) courses will include strong mathematics, science, and technology skills. In addition, activities-based instruction, project-based learning, and problem solving will be included in each academic course. Mathematics and science teachers in the sixth and seventh grades will participate in workshops in spring 2008 to learn how to integrate hands-on, experience-based learning into the Standards of Learning (SOL). Eighth-grade students will continue their study of mathematics with Algebra I. Since much of the Academy is focused on preparing middle school students to enroll in more career and technical

courses, primary core courses will be taught in conjunction with career and technical preparation courses.

Grades 6-8

Middle school students will be offered a range of opportunities to guide them through exploratory programs including site visits to local businesses, development of career portfolios, and presentations of career choices. Using the Kuder career assessment each student will be assessed for areas of interest, explore jobs that align with identified areas of interest, and complete a job interview planner. Parents and teachers will be involved in the process. Students will have opportunities to modify their Kuder job search from sixth through twelfth grades. Students, along with their parents, will develop individual plans that will be a culmination of additions, modifications, and deletions reflecting changes made from the sixth grade through postsecondary education planning.

A more thorough look at career pathways will be emphasized in the eighth grade when students will identify a pathway and select high school courses that will help them meet their career goals. Additionally, all eighth-grade students will be required to take Algebra I.

Program Details for Grades 6-8

The STEM for LIFE Governor's Academy will build on current programs and resources to provide enhanced or additional offerings in STEM education. These enhancements and additional offerings will prepare students for different career pathways using a multi-step design of curriculum and activities.

Implementation of a strong foundation based on a hands-on science and mathematics curriculum for middle school students will comprise the first step. The Gateway to Technology curriculum, which is the middle school component of Project Lead the Way (PLTW), will be introduced in every sixth- and seventh-grade class in Russell County Public Schools. The Gateway to Technology program consists of five independent units taught in conjunction with a rigorous academic curriculum. The five units are Design and Modeling, The Magic of Electrons, The Science of Technology, Automation and Robotics, and Flight and Space.

The first two units, Design and Modeling and The Magic of Electrons, will be taught in sixth grade for two nine-week periods. Keyboarding will be taught the other two nine-week periods. In addition, sixth-grade mathematics and science teachers will incorporate practices from Reading in the Content area literature. Sixth- and seventh-grade science and mathematics teachers will receive inservice training on how to use hands-on activities and manipulatives in mathematics and science instruction.

The last three classes in Gateway to Technology (The Science of Technology, Automation and Robotics, and Flight and Space) will be taught in seventh grade for three nine-week periods. The fourth nine-week period will be used to reinforce keyboarding, problem-solving skills, and test-taking strategies. Intensive mathematics, science, civics and economics, and reading skills will be taught along with the Gateway curriculum.

Eighth-grade students will then be ready to participate in Algebra I, World Geography, Physical Science, English, and their choice of foreign language, band, choir, or Computer Information Systems. Taking Algebra I in grade eight will provide a foundation in mathematics for higher level mathematics courses and prepare students for

dual enrollment and Advanced Placement classes during the sophomore, junior, and senior years in high school.

The middle school guidance program will be redesigned to better prepare middle school students to understand job opportunities in Russell County and the surrounding area. The guidance program will be prepared to advise on secondary courses and postsecondary training required to obtain a job in the Information Technology and STEM career clusters. Restructuring of middle school guidance will include:

- a. developing career fairs, obtaining speakers, and planning visits to businesses, community colleges, and other partners on a bi-weekly basis for sixth-, seventh-, and eighth-grade students;
- b. developing brochures for the three identified pathways (Science and Mathematics, Engineering and Technology, Information Support and Services) targeting parents and students;
- c. developing special “exchange groups” for middle school students to have discussions with high school and college students in the targeted pathways;
- d. providing a continuous job counseling service in the eighth and ninth grades that will continue through the high school years;
- e. providing group and individual counseling for students with their parents about job opportunities, education requirements for specific jobs, and opportunities in postsecondary education and training; and
- f. providing a transition program for students in seventh grade to eighth grade or from eighth grade to ninth grade, depending upon the structure of the feeder schools to the three high schools. The transition program will address course selection, activities, clubs, athletics, and the social aspect of high school; and interpreting the results of the Kuder career assessment for student and their parents.

Professional development and training for middle school teachers and guidance counselors is essential to the success of the STEM for LIFE Academy. Training will take place in three areas:

1. All sixth- and seventh-grade teachers will participate in professional development in the delivery of mathematics and science instruction to facilitate more hands-on, inquiry-based activities and project-based learning. The professional development will be coordinated and supervised by the department of instruction at Southwest Virginia Community College.

2. Middle school guidance counselors will be trained to use the Kuder career assessment tool to help students plan future courses as they enter grades nine through twelve. Counselors will learn how to interpret career assessment information and translate that information into workable plans of study for students and their parents. Middle school and high school guidance counselors will meet to coordinate the career assessment program, plan brochures to articulate the pathways students will take in order to reach their goals, and plan a transition program from middle to high school.

3. Technology teachers will receive training on the Gateway to Technology courses. During the summer of 2008 they will attend Project Lead the Way training at the University of Kentucky.

See Appendix A for a timeline of professional development for the STEM for LIFE Governor's Academy.

During the summer of 2008, the STEM for LIFE Governor's Academy will offer a program for upcoming seventh-, eighth-, and ninth-grade students. Students will be selected for participation based on interest and teacher referral. The summer program will be held for three weeks, July 7 through July 25. During the program, students will participate in activities from two of the following areas: Engineering, Information Technology, Advanced Science Research, and Mathematical Design. Teachers for the

summer academy will be selected on the basis of their creativity and background knowledge to design and teach these courses. Students will hear speakers, participate in field trips to the partner organizations, and design and carryout a project of their own.

Grades 9-12

High school students will have options as they select from the three pathways provided through the STEM for LIFE Governor's Academy.

Guidance will continue to be an important part of the high school program as counselors help students and their parents align interests and anticipated career plans with high school coursework that leads to certifications, provides dual enrollment, and prepares for two-year and four-year postsecondary degrees.

Higher education will play a large role in high school as students participate in dual enrollment courses and the beginning of programs that may be completed on a postsecondary level. Representatives from Southwest Virginia Community College and the University of Virginia's College at Wise will counsel and mentor students as they progress through the high school portion of the Academy.

Program Details for Grades 9-12

After completing eighth grade, all interested students will be invited to apply for STEM for LIFE Governor's Career and Technical Academy status in one of the three pathways. Acceptance into the program will be based on three criteria: 1) student academic data; 2) recommendations from at least two teachers in the pathway the student has chosen; and 3) evidence of program interest (Kuder career assessments and interest inventories). A selection committee for each pathway will be established at each school.

Each pathway includes opportunities for dual enrollment or Advanced Placement (AP) credit through Southwest Virginia Community College, the University of Virginia's College at Wise, Virtual Virginia (for AP only), and the Commonwealth College Course Collaborative (CCCC).

The following courses are taught for dual enrollment through Southwest Virginia Community College:

- Biology II; Earth Science II; Chemistry II;
- Informational Technology including Web Design, JAVA Programming and Software Design, IT Essentials, Cisco I, II, III, and IV, and Marketing. Oracle will be added during the 2009-2010 school year; and
- Calculus, Trigonometry, and Mathematical Analysis.

Related to the three selected pathways, other classes for dual enrollment will be added to the curriculum during the next two years. They include:

- *Applied Calculus I, II;
- *Statistics;
- *General College Physics I, II;
- *Environmental Problems;
- *Environmental Laws;
- *Environmental Science;
- *Principles of Economics I, II;
- *Introduction to Engineering;
- *Introduction to Network Concepts;
- *Database Fundamentals;
- *Structured Query Language;
- *Telecommunications Management;
- *Computer Technology;
- *Computer Drafting and Design; and
- *Software Configuration and Diagnostics.

All students with the prerequisites will be given the opportunity to enroll in these courses.

Using the Internet and a connecting software program, dual enrollment classes taught through the Technology Development Center will be received by each high school and

the Russell County Career and Technology Center. A list of dual enrollment classes, which will be taught at the central location, will be developed by high school principals and mathematics, science, computer information, business, and technology teachers in spring 2008.

Some of the courses delivered at the Russell County Career and Technology Center offer certifications and a verified credit with the National Center for Construction Education and Research (NCCER). They include pre-engineering classes, Digital Electronics, Computer Integrated Manufacturing, and Engineering Design and Development.

Students graduating from the STEM for LIFE Academy will meet the requirements to qualify for Technical or Advanced Technical diplomas.

Virginia's Workplace Readiness Skills will be incorporated into the curriculum at each grade level for academic and CTE courses. Workshops that address Virginia's Workplace Readiness Skills will be held for teachers at the Russell County Career and Technical Center for teachers of sixth-, seventh-, and eighth-grade core curricula, and for ninth- through twelfth-grade English teachers. Reading to learn practices will also be included in each CTE course aligned with the required English course at each grade.

Workplace Readiness Skills are taught in all CTE classes at the Russell County Career and Technology Center. A job specialist with the Jobs for Virginia Graduates program currently works with identified seniors who may be at risk of not graduating to ensure that these students have workplace readiness skills. Another job specialist will be added to the faculty to assist students beginning at the tenth-grade level with choosing a career and a postsecondary goal. There are currently 40 students in the Jobs for Virginia

class, and more students will be identified for the 2008-2009 school year. In addition, a career coach from SWVCC will work with all high school students in the academy.

Southwest Virginia Community College personnel, including the Dean of the Information Technology Division, Dean of the Engineering Division, Dean of the Mathematics and Science Division, and the Vice-President for Instruction, have met and will continue to meet at least five more times throughout the 2008-2009 school year with Russell County Public Schools' teachers, principals, and central office personnel to determine a seamless sequence of courses at the community college level after graduation from Russell County high schools. A brochure is being developed for parents and students that lists the courses that lead to a two-year degree in Information Technology.

If a student fails a pathway course at any time while enrolled in the Academy, the student will be allowed to retake the course and continue pursuing the pathway. If a student consistently fails courses related to the Academy, the student has the option of entering another pathway or completing a program of studies for a standard or advanced studies diploma. (See pages 21 and 22 for complete Academy requirements.)

Guidance counselors at the high school level will plan with students, coordinate with middle school guidance counselors, and talk with parents in small groups and one-on-one to plan for postsecondary education and careers. Links on the school division Web site and the individual school sites will list dual enrollment courses and programs that offer certification and verified credits. The links will also have information about the pathways leading to additional educational opportunities and counseling services offered by each school to help students and their parents determine educational paths.

Russell County Public Schools is working to offer additional certifications for students through the National Occupational Competency Testing Institute (NOCTI) in Computer Networking Fundamentals, Computer Programming, Computer Technology, and pre-engineering.

Certiport certification will be offered in the areas of Business Information Technology (Microsoft Office Specialist: Word, Excel, PowerPoint), Internet and Computing Core Certification (IC3), JAVA computer programming, and CISCO.

Program Goals and Performance Measures

The goals and performance measures of the STEM for LIFE Academy are set forth in the following:

1. Improve academic achievement of Academy students.

- a. Increase the number of students taking CTE classes by 20 students in the STEM and information technology clusters the first year, and by 20 students overall in the following years until 2010-2011.

Chart 1a

Subject	2007-2008 Enrollment	2008-2009 Enrollment	2009-2010 Enrollment	2010-2011 Enrollment
Computer Systems Technology	29	33	37	40
Computer Network Hardware Operations	16	20	24	28
Desktop Publishing	16	17	18	19
Digital Input Technology	50	53	55	55
Engineering Design	9	14	18	25
JAVA (Programming)	30	34	35	36

Subject	2007-2008 Enrollment	2008-2009 Enrollment	2009-2010 Enrollment	2010-2011 Enrollment
Principles of Engineering	19	21	23	26
Technology Foundations	53	55	57	58

- b. Increase the achievement of students in CTE classes, with the percentage of students making A's and B's in the identified courses increasing by 10 percent the first year, and by 5 percent in the following years until 2010-2011.

Chart 1b

Subject	Students with A's and B's in 2007-2008 Baseline	Number of Students with A's and B's in 2008-2009 (10 percent increase)	Number of Students with A's and B's in 2009-2010 (5 percent increase)	Number of Students with A's and B's in 2010-2011 (5 percent increase)
Computer Systems Technology	24	26	28	30
Computer Network Hardware Operations	16	18	19	20
Desktop Publishing	16	17	18	19
Digital Input Technology	44	48	50	52
Engineering Design	4	10	11	12
JAVA (Programming)	30	33	35	37
Principles of Engineering	12	14	16	18
Technology Foundations	36	40	42	44

- c. Increase the use of hands-on experiential delivery and instructional techniques used in CTE classes, as determined by a survey of teachers and students, and by focus group interviews in each school.

2. Increase completion of dual enrollment courses.

- a. Offer at least three more dual enrollment classes in the pre-engineering and/or technology and/or science/mathematics areas during the 2008-2009 school year and an additional two more courses each year thereafter until 2010-2011;

Chart 2a

Course Prefix and Number	Class Name	Location	Credits	Added/Year Location
DRF 202/203	Computer Drafting and Design	Lebanon	8	* 2009-2010 Castlewood/Honaker
EGR 115/120	Engineering Graphics and Introduction to Engineering	Currently not being offered	8	*2010-2011 Lebanon
ETR 166/167	Computer Technology	Honaker	8	* 2008-2009 Castlewood
ETR 166/167	Computer Technology	Lebanon	8	Currently taught
ITD 110/111	Web Page Design	Castlewood	8	*2010-2011 Lebanon
ITD 110/111	Web Page Design	Honaker	8	Currently taught
ITP 100/101	Information Technology Programming	Honaker	6	* 2008-2009 Castlewood
ITP 100/101	Information Technology Programming	Lebanon	6	Currently taught
TEL 150/151	Telecommunications Management	Lebanon	8	Currently taught
TEL 150/151	Telecommunications Management	Honaker	8	* 2008-2009 Castlewood

Chart 2b

Course Prefix and Number	Class Name	Location	Credits	Added/Year Location
BIO 101/102 w/Lab	Biology	Castlewood	8	* 2008-2009 Lebanon/Honaker
CHM 111/112 W/Lab	Chemistry	Castlewood	8	* 2008-2009 Lebanon/Honaker
ACC 211/212 w/Lab	Accounting	Castlewood	8	* 2009-2010 Lebanon
MKT 100/101	Marketing	Lebanon	6	*2010-2011 Honaker/Lebanon
MTH 163/164	Pre-Calculus	Lebanon	6	*2009-2010 Honaker
MTH 163/164	Pre-Calculus	Castlewood	6	Currently taught

- b. Offer at least four more dual enrollment classes in the areas of mathematics, science and related business computer offerings, and an additional two more courses each year thereafter until 2010-2012.
- c. Schedule meetings between the guidance counselors and those identified students in the three pathways at least four times a year to ensure parent participation, and to aid students with any classroom difficulties which they may experience. Documentation will take the form of logs completed by each guidance counselor detailing student, parent, and teacher meetings.

3. Provide work place readiness experiences for students through strong partnerships with businesses.

- a. Persons from businesses and colleges will mentor each identified student considered at-risk in the three identified pathways at the middle and high school level;
- b. All classes identified in the three pathways will include project-based learning activities. Projects will be displayed at various businesses, stores, and service organizations beginning with the three-week summer programs for sixth-, seventh-, and eighth-grade students during the summer of 2008.
- c. All students in the sixth-, seventh-, and eighth-grades must choose at least one service-learning project in which to participate during the 2008-2009 school year. Of particular focus will be the projects in which business and industry partners participate. Students will be encouraged to complete service learning activities with local partners and as a part of their classes.
- d. Several local businesses have indicated that they will offer job shadowing for students in the junior and senior years, serve as speakers at parent, student, community meetings or mentor middle and high school students.
- e. Business, industry, colleges, and work force development entities will present information to guidance counselors regarding job opportunities or prospects which are expected to be available nationally, statewide, regionally, and countywide for the next 2-5 years, next 6-10 years, and next 11-15 years.

4. Increase high school graduation rates.

The cohort graduation rate will increase overall in the county by 4 percent during the 2008-2009 school year and 2 percent in each of the school years thereafter until 2010-2011.

Graduation Rates (in percent)
Chart 4a

2006-2007	75
2007-2008 (projected 2 percent increase)	77
2008-2009	79
2009-2010	81
2010-2011	83

5. Reduce dropout rates.

The cohort dropout rate will decline countywide by 0.25 percent in the 2008-2009 school year and by 0.10 percent in each of the school years thereafter until 2010-2011. The decreases are based on the data from the 2006-2007 baseline year.

Dropout Rates (in percent)
Chart 5a.

2006-2007	1.77
2007-2008 (projected)	1.77
2008-2009	1.52
2009-2010	1.42
2010-2011	1.32

6. Increase enrollment and retention in postsecondary education.

The increase in enrollment over the 2007-2008 baseline in postsecondary education with the 2008-2009 graduating seniors will be 4 percent for the 2008-2009 school year, and by 4 percent in the following years thereafter until 2010-2011. The rate may include two-year college, four-year college, or technical training beyond secondary school.

Postsecondary Enrollment
Chart 6a (in percent)

Postsecondary Type	2007-2008	2008-2009	2009-2010	2010-2011
Two-Year	45	49	53	57
Four-Year	19	23	27	31
Technical Training	3	7	11	15

7. Increase the proportion of students completing a college and work place ready curriculum in high school.

Increase the percentage of students graduating with a college and work place curriculum over the baseline data from 2007-2008 by 6 percent during the school year 2008-2009 and by 4 percent in the school years thereafter until 2010-2011.

Diplomas Received
Chart 7a (in percent)

Diploma Type	2007-2008	2008-2009	2009-2010	2010-2011
Advanced Study	36	42	46	50
Standard Diploma	47	53	57	61

8. Reduce the proportion of students requiring remediation in college.

Reduce the percentage of students requiring remediation in the local colleges by 2 percent for the 2008-2009 school year, and by 2 percent for the following years thereafter until 2010-2011. The decrease is relative to the 2006-2007 year baseline data.

Remediation Rates
Chart 8a (in percent)

2007-2008	2008-2009	2009-2010	2010-2011
35	33	31	29

9. Increase the number of industry certifications awarded to high school students.

Increase the number of industry certifications awarded by 4 percent in the year 2008-2009 and by 3 percent in years thereafter until 2010-2011. The increase is over the baseline year data collected in 2006-2007.

Industry Certifications
Chart 9a

2007-2008	2008-2009	2009-2010	2010-2011
59	63	66	69

10. Increase the number of graduates employed in high-wage, high-demand, and high-skill careers.

The number of graduates employed in high-wage, high-demand, and high-skill careers will be collected on a yearly basis and compared yearly to determine the percent increase of these graduates from year to year. The number of graduates employed in the 2008-2009 school year will be 15.

Data will be maintained yearly to track students from sixth grade to postsecondary choices. Students enrolled in sixth grade during the 2008-2009

school year will receive the full benefits of the STEM for LIFE Academy by the time they graduate in the year 2014-2015. Therefore, new performance measures will be written during the summer of 2011 to show anticipated performance for future years.

Beginning with the 2010-2011 school year, dual enrollment classes at the central location will be offered to students in surrounding high schools in Dickenson, Tazewell, Scott, and Lee counties. Based on input from the STEM for LIFE Advisory Council, a variety of courses will be offered for high schools located in the aforementioned counties.

All students will be enrolled in a full-day program. All courses will be taught by certified, trained teachers. All Russell County high schools feature a seven-period day. Some courses may be taught at the Russell County Career and Technical Center or at the University of Virginia's College at Wise Center for Technology Development through distance learning.

Requirements for Program Completion

All of the identified pathways allow students to transfer courses to Southwest Virginia Community College to earn an associate degree. Courses in the STEM for LIFE Academy will also transfer to the University of Virginia's College at Wise to begin studies in a chosen field for a four-year degree.

To graduate from the STEM for LIFE Governor's Academy, students must meet the following requirements:

- Meet the requirements for the Commonwealth Scholars Program;
- Meet the requirements for a standard or advanced technical diploma;
- Complete required coursework for the Science and Mathematics, Engineering and Technology, or Information Support and Services pathways as listed in Appendices B, C, and D;

- Complete a minimum of 15 hours of college credit through dual enrollment;
- Complete a minimum of one semester of job shadowing or internship in a local business or industry; and
- Complete at least one industry certification related to the identified program of study.

Operating funds and facilities within the Russell County School System are available to support the Governor’s Career and Technical Academy and are adequate to meet the needs of the program.

Materials, equipment, and professional development will be provided to teachers in order for them to accomplish Academy goals and objectives.

Evidence of Internal Evaluation

Evidence for an internal evaluation process to effect program improvement will be collected and analyzed via several different avenues.

Quarterly meetings will be held with the school division superintendent, academy director, partners, and advisory council to ensure that the goals of the Academy are being met. Formative in nature, the meetings will focus on adherence to the established timeline for the Academy, consideration of recommendations by teachers, other instructional staff, students, parents, and community members. At the meetings the group will review all current evidence of student performance. Documentation will be maintained through agenda, sign-in sheets, and recorded minutes.

Monthly reflection meetings will be held at the Russell County School Board Office with all Academy instructional staff to address Academy accomplishments and to discuss any recommendations for program changes. These meetings will provide a

forum for teachers and other instructional staff to share concerns. Documentation of these meetings will be maintained through agenda, sign-in sheets, and recorded minutes.

The Academy is a partnership. Therefore, feedback from each group will be essential to the success of the Academy. Monthly staff meetings, quarterly meetings with parents and community members, and quarterly meetings with the advisory council and planning committee will provide essential input, address concerns, and identify potential resources. A student advisory council will be established to give students an opportunity to express ideas about the Academy. Student advisory council membership will include student representatives from each grade and pathway. All meetings will be documented with agenda, sign-in sheets, and recorded minutes.

The STEM for LIFE Governor's Academy will adhere to the Career and Technical Education Exemplary Standards evaluation criteria.

The Academy director will submit an annual report to the Department of Education. Using 2007 information, the Academy will establish baseline data that will be the beginning of a longitudinal study of students from sixth grade through graduation from high school. In addition, data will be collected regarding student selection and completion of programs after high school graduation, including technical and certificate programs, associate degrees, and baccalaureate degrees. Data for the report will include individual Standards of Learning scores, information about student selection of courses in STEM and instructional technology, evidence of student participation in and completion of service projects, and documentation of student involvement in job shadowing, and mentoring.

At the end of the first year of the Academy, the partners, school superintendent,

and Academy director will identify the accomplishments of the Academy. The report, submitted to the Virginia Department of Education, will be both qualitative and quantitative and include a report of the strengths, areas of need, and anticipated modifications. This will be a time also for reflection and regrouping and to make decisions about continued elements of the STEM for LIFE Academy.

Partnerships

Business and industry partners, higher education, and work force and economic development entities have been working with Russell County on the planning committee and advisory council of each area of the STEM for LIFE Academy. Planning committee meetings are being held monthly, with the first meeting held in December of 2007. One advisory council meeting has been held, and another one is planned for May of 2008. See Appendices E and F for a complete list of planning committee and advisory council members. In addition, all school guidance counselors and principals comprise a secondary advisory council to provide feedback and input on all aspects of Academy planning and implementation.

Business, industry, and economic development partners have committed to many work-based experiences for students with training beyond the classroom. The Memorandum of Understanding identifies the areas in which each partner plans to offer expertise. See Appendix G.

Student Recruitment, Selection Criteria, and Admissions

All sixth- and seventh-grade students in Russell County will participate in the Gateway to Technology sequence and keyboarding classes. In eighth grade all students will participate in Algebra I and Physical Science. Students choosing the Information Support and Services Pathway will enroll in Computer Information Systems (CIS 1). These courses will prepare all Russell County middle school students with the foundation needed to enter a STEM or Information Technology pathway in high school if they desire.

Students who wish to enter the pathways of Science and Mathematics, Engineering and Technology, and Information Support and Services in high school will need strong English, mathematics, and science skills. A student must complete an application at the beginning of eighth grade to begin the selected pathway. A failing grade at the end of a school year will cause a student to be on probation. The student will be monitored during the following school year to determine if the chosen pathway and course of study is appropriate.

The Academy enrollment will begin with 284 sixth graders in 2008-2009, 284 seventh graders in 2009-2010, 319 eighth graders in 2010-2011, and 425 high school students taking dual enrollment courses from 2008 through 2012.

Code of Student Conduct and Attendance

Sixth-, seventh-, and eighth-grade students are required to adhere to the Russell County Public Schools Code of Student Conduct and attendance policy.

Transportation

Transportation will be provided by the Russell County Public School System for all activities and classes for all Academy students. Transportation will be in compliance with all applicable federal and state regulations.

Staff Recruitment, Selection, and Assignment

In addition to meeting Virginia licensure requirements, staff members will receive training to teach the Gateway to Technology units.

Staff members who teach any of the courses within the three pathways will meet the Virginia licensure requirements and postsecondary faculty qualifications in order to teach the dual enrollment classes. Staff members teaching industry-specific classes must have industry-specific education with training and experience, including industry certification.

Guidance counselors who will work with students administering career assessments will meet Virginia licensure requirements for counseling in Virginia public schools or be working toward their certification.

Staff Development

Russell County Public Schools will provide appropriate staff training for all participating middle and high school teachers for the Gateway to Technology units, Workplace Readiness Skills, and hands-on mathematics and science activities.

Russell County Public Schools will also provide appropriate staff training for all middle and high school guidance counselors in the use and interpretation of the Kuder career assessment tool, identification of regional and statewide career

opportunities, and training in how to conduct student, teacher, parent, and community awareness sessions regarding the STEM for LIFE Academy and the opportunities it will afford students.

All participating teachers and guidance counselors will meet once a month for the purpose of updating, planning, and exchanging ideas and strategies.

Staff Evaluation

All Academy staff will be evaluated according to Russell County policies.

Parent, Student, and Community Involvement

Preparation for entering the STEM for LIFE Governor's Academy will begin in the sixth grade. Students, parents, teachers, and guidance counselors will work collaboratively by beginning career assessments in the fall of 2008 with sixth- and seventh-grade students. Together they will complete career interest inventories, prepare academic and career plans, review multiple postsecondary pathways and steps required to pursue them, participate in career assessments to identify student strengths, weaknesses and interests and discuss available diplomas, seals, and other recognitions.

Documentation of Insurance, Budget, and Other Fiscal Information

Insurance for all students including out-of-county students attending any programs sponsored by the Russell County Public School System will be covered by insurance offered by the Virginia Association of Counties Organization Insurance Programs. The insurance is a supplemental accidental injury insurance policy which covers students at school, on field trips, during other school-sponsored activities and on school buses.

Russell County Public Schools will be the fiscal agent for the STEM for LIFE Governor’s Academy. With prior experience as fiscal agent for federal, state, and local grants, Russell County Public Schools is willing and capable of serving in this capacity. See Appendix F.

Operating funds and facilities within the Russell County Public School System are available to support the Governor’s Career and Technical Academy and are adequate to meet the needs of the program.

Materials, equipment, and professional development will be provided to the teachers in order for them to accomplish the program goals and objectives of the Academy.

Implementation Budget Narrative

A. Direct Costs

- | | | |
|-----------|---|-----------------|
| 1. | <u>Personnel</u> | \$41,000 |
| | A total of \$41,000 for salaries for Gateway to Technology teachers and a half-time project director. | |
| 2. | <u>Employee Benefits</u> | \$6,500 |
| | Benefits for three full-time technology teachers and a half-time project director. (Amount includes FICA, Group Life Insurance, Social Security, Medicare, and Health Benefits) | |
| 3. | <u>Purchased/Contracted Services</u> | \$15,060 |
| | Cost for Gateway to Technology software for 6 schools; cost for iLinc Suite to actively teach classes from the Southwest Technology Development Center and transmit to all high schools in Russell County. (\$5,760 for iLinc; \$9,300 for Gateway software). | |
| 4. | <u>Internal Services</u> | \$0 |

5.	<u>Staff Development</u>	\$16,000
	Stipends for teachers for training during after-school hours - \$200 x 10 four-hour training sessions for 8 teachers.	
6.	<u>Summer Component</u>	\$20,600
	8 teachers for three weeks @ \$100 per day	\$12,000
	1 Nutrition/Instructional Assistant @ \$10 per hour	\$600
	Snacks for Students in Summer Program	\$2,000
	Field Trips – Drivers and Fuel	\$1,000
	Stipends for Students Helping with Program	\$3,000
7.	<u>Travel</u>	\$0
8.	<u>Contractual Services</u>	\$0
9.	<u>Materials and Supplies</u>	\$840
	Materials and supplies for sixth- and seventh-grade mathematics, science, or English hands-on activities.	
10.	<u>Equipment</u>	\$0
11.	<u>Facilities</u>	\$0
B.	<u>Indirect Costs</u>	\$0
Total		\$100,000

APPENDIX A:
PROFESSIONAL DEVELOPMENT TIMELINE

**PROFESSIONAL DEVELOPMENT
TIMELINE**

Fall 2007 through Fall 2009

Participants	Activity Planned or Implemented	Date	Status
Middle and high school principals, community college faculty and leaders, four-year college faculty and leaders, university faculty and leaders, legislators, and business and industry leaders	STEM Awareness Meeting – What is STEM? Who is Involved? What is your Role?	November 2007 December 2007	Completed
Russell County Public Schools guidance counselors	STEM Awareness Meeting –	December 19, 2007	Completed
Sixth- and seventh-grade mathematics and science teachers and guidance counselors	STEM Awareness Meeting	January 7, 2008	Completed
Guidance counselors	Planning meetings; parent meetings; visits to college campus; career fair	January 16, 2008	Completed
Guidance counselors	Training on Kuder Assessment tool in a.m./Create pathway brochures in p.m.	January 30, 2008	Completed
STEM for LIFE Planning Committee and guidance counselors	Discuss available jobs and education needed. Discussion of postsecondary employment	February 13, 2008	Completed
Guidance counselors	Tour of CGI-AMS, Inc. facility; discussion by CGI-AMS, Inc. representatives regarding available jobs	February 13, 2008	Completed
Teachers, guidance counselors, and principals	Visit to observe implementation of Gateway to Technology	February 13 and 19, 2008	Completed

Participants	Activity Planned or Implemented	Date	Status
Guidance counselors	Tour of Northrop Grumman facility; presentation by Jim Tiscornia regarding available jobs and education needed for employment	February 20, 2008	Completed
Sixth-grade mathematics teachers	Instruction by resident engineer in PLTW in teaching Virginia SOL	March 4, 11 and 18, 2008	Completed
Sixth-grade science teachers	Instruction by resident engineer in PLTW in teaching Virginia SOL	March 18, April 1 and 8, 2008	Completed
Guidance counselors, principals, and parents	Light dinner followed by discussion of STEM jobs available locally, regionally, and statewide, education required, and postsecondary opportunities	March 3, 4, 12 and 13, 2008	Completed
High school mathematics, science, and information technology teachers and community college representatives	Meeting to determine courses to meet pathway requirements	April 15, 2008	Completed
Twelfth-grade English teachers	Inservice on Virginia's Workplace Readiness Skills	May 13 and 20, 2008	To Be Completed
CTE teachers	Inservice on Virginia's Workplace Readiness Skills	May 6 and 7, 2008	To Be Completed
Teachers selected to participate in training for Gateway to Technology classes in the middle grades	Training on Gateway to Technology	University of Kentucky – June 15 – 27, 2008	To Be Completed
Seventh-grade mathematics teachers	Instruction in the use of hands-on mathematics projects (SOL related) by resident engineer from PLTW	Fall 2008	To Be Completed

Participants	Activity Planned or Implemented	Date	Status
Seventh-grade science teachers	Hands-on training on how to teach science projects to match SOL	Fall 2008	To Be Completed
Parents of Russell County middle and high students, teachers, and guidance counselors	Meetings to discuss progress of program, students, jobs, and education required	Fall 2008	To Be Completed
Eighth-grade Algebra I teachers	Training on hands-on strategies for teaching Algebra	Winter 2008	To Be Completed
Information technology personnel	Plan course and syllabus for eighth-grade information technology course	Winter 2008	To Be Completed
Information technology teachers	Training to teach IT course in eighth grade	Winter 2008	To Be Completed
Guidance counselors	Inservice for guidance counselors to conduct surveys with teachers and students	Winter 2008	To Be Completed
Guidance counselors	Training on how to work with parents in helping students choose a career	Winter 2008	To Be Completed
High school and middle school guidance counselors	Meetings to exchange ideas on transition, career fairs, and student classes	Fall 2008 Winter 2008 Spring 2009	To Be Completed
Personnel teaching classes on Interactive Internet	Training on how to use Interactive Internet	Spring 2009	To Be Completed
Personnel involved in delivery of STEM for LIFE Academy, planning committee, and advisory council	Professional development and meetings will be scheduled throughout the school year as needs develop	As needed	To Be Completed

**APPENDIX B:
SCIENCE AND MATHEMATICS
PROGRAM OF STUDIES**



Career Cluster: Science, Technology, Engineering and Mathematics
Career Pathway: Science and Mathematics



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)		Physical Education <i>Gateway to Technology: Design and Modeling and The Magic of Electrons</i> (2 nine-week sessions)
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Economics	Keyboarding (1 nine-week session)		Physical Education <i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space</i> (3 nine-week sessions)
	8	Language Arts 8	Algebra I	Physical Science	World Geography			Physical Education Foreign Language Introduction to Careers

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology Laboratory Practices and Biology Laboratory	World History I or World History II	Physical Education	Foreign Language	IT Laboratory Practices Biology Laboratory	<ul style="list-style-type: none"> • Analytical Chemist • Anthropologist • Applied Mathematician • Archeologist • Astronomer • Astrophysicist • Atmospheric Scientist • Biologist • Chemist • Ecologist • Economist • Environmental Scientist • Geneticist • Geologist • Geophysicist • Marine Scientist • Mathematics Teacher • Mathematician • Meteorologist • Nanobiologist • Nuclear Chemist/Technician • Physicist • Programmer • Quality-Control Scientist • Research Technician • Science Teacher • Scientist • Statistician • Zoologist
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/I or II Geography 2221	Physical Education	Foreign Language	Information Technology Applications Chemistry Laboratory	

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		Related Careers	
	11	English 11 1150	Algebra II 3135 Computer Mathematics Geometry	Chemistry I and II (DE)	US/VA History 2360		Foreign Language Engineering Design Oracle SQL	Physics Laboratory Scientific Research Science and Mathematics in the Real World	
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160 Applied Calculus	Physics OR Principles of Technology I (9811-Grades 10 or 11) and Principles of Technology II (9812-Grade 12)	US/VA Gov 2440			Scientific Research Advanced Applications of Science and Mathematics Using Science and Mathematics to Solve Problems Technical Aspects of Science and Mathematics	

**APPENDIX C:
ENGINEERING AND TECHNOLOGY
PROGRAM OF STUDIES**



Career Cluster: Science, Technology, Engineering and Mathematics
Career Pathway: Engineering and Technology



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)	Physical Education	<i>Gateway to Technology: Design and Modeling and The Magic of Electrons (2 nine-week sessions)</i>
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Economics	Keyboarding (1 nine-week)	Physical Education	<i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space (3 nine-week sessions)</i>
	8	Language Arts 8	Algebra I	Physical Science	World Geography		Physical Education	Foreign Language Introduction to Engineering Design

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching,</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology	World History I or World History II	Physical Education	Foreign Language	Principals of Engineering	<ul style="list-style-type: none"> • Animator • Audio-Video Engineer • Digital Media Designer • Graphic Designer • Media Specialist • Multimedia Author • Multimedia Developer • Multimedia Specialist • Page Developer • Producer • Production Assistant • Site Developer • Streaming Media Specialist • Virtual Reality Specialist • Web Architect/Designer • Web Designer • Web Development Administrator • Web Producer • Webmaster
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/ Geography 2221	Physical Education	Foreign Language	Computer Integrated Manufacturing Digital Electronics	
	11	English 11 1150	Algebra II 3135	Chemistry 4410	US/VA History 2360		Foreign Language	Civil Engineering and Architecture Biotechnical Engineering Aerospace Engineering	
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160	Physics OR Principles of Technology I (9811-Grades 10 or 11) and Principles of Technology II (9812-Grade 12)	US/VA Gov 2440			Design, Multimedia, and Web Technologies (6632) ^{1,2}	

APPENDIX D:
INFORMATION SUPPORT AND SERVICES
PROGRAM OF STUDIES



Career Cluster: Information Technology
Career Pathway: Information Support and Services



	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		
Middle School	6	Language Arts 6	Mathematics 6	Science 6	U.S. History	Keyboarding (2 nine-week sessions)		Physical Education <i>Gateway to Technology: Design and Modeling and The Magic of Electrons</i> (2 nine-week sessions)
	7	Language Arts 7	Mathematics 7	Life Science 7	Civics/Economics	Keyboarding (1 nine-week session)		Physical Education <i>Gateway to Technology: Science of Technology, Automation of Robotics, and Flight and Space</i> (3 nine-week sessions)
	8	Language Arts 8	Algebra I	Physical Science	World Geography			Physical Education Foreign Language Introduction to Information Technology

CAREER ASSESSMENT: Administration of a career assessment instrument is appropriate at the middle-school level to help students and their parents plan for high school (KUDER® or other assessment product).

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses			Related Careers
SECONDARY <i>Career Coaching,</i>	9	English 9	Algebra I-B Algebra II Geometry	Earth Science Biology I Ecology Laboratory Practices and Biology Laboratory	World History I or World History II	Physical Education	Foreign Language Information Technology Applications Web site Development Technology Education	IT Fundamentals (6670) ^{1, 2} Computer Information Systems	<ul style="list-style-type: none"> • Account Manager • Applications Integrator • Call Center Support Representative • Customer Service Representative • Data Systems Designer • Database Administrator • Database Analyst • E-Business Specialist • Help Desk Specialist • Information Systems Architect • Instructional Designer • Maintenance Technician • PC Support Specialist • PC Systems Coordinator • Product Support Engineer • Support Engineer • Systems Analyst • Technical Communicator • Testing Engineer
	10	English 10 1140	Geometry 3143	Biology I 4310	World History/I or II Geography 2221	Physical Education	Foreign Language	Computer Information Systems (6612) IT Essentials ^{1, 2} Cisco	<ul style="list-style-type: none"> • Database Administrator • Database Analyst • E-Business Specialist • Help Desk Specialist • Information Systems Architect • Instructional Designer • Maintenance Technician • PC Support Specialist • PC Systems Coordinator • Product Support Engineer • Support Engineer • Systems Analyst • Technical Communicator • Testing Engineer
	11	English 11 1150	Algebra II 3135 Computer Mathematics Geometry	Chemistry I and II (DE)	US/VA History 2360		Foreign Language Engineering Design Oracle SQL	Advanced Computer Information Systems (6615) ^{1, 2} Introduction to Network Systems Network System Installation Computer Systems Technology JAVA Programming	<ul style="list-style-type: none"> • Maintenance Technician • PC Support Specialist • PC Systems Coordinator • Product Support Engineer • Support Engineer • Systems Analyst • Technical Communicator • Testing Engineer

	Grade	English	Mathematics	Science	S.S.	Required Courses or Recommended Electives and/or CTE Courses		Related Careers
	12	English 12 English 111/112 ²	Advanced Algebra and Trigonometry 3160 Applied Calculus	Physics OR Principles of Technology I (9811-Grades 10 or 11) <u>and</u> Principles of Technology II (9812-Grade 12)	US/VA Gov 2440		Design, Multimedia, and Web Technologies (6632) ¹ Network System Design Network Systems Maintenance and Support	

APPENDIX E:
ADVISORY COUNCIL

**STEM for LIFE Academy
Advisory Council Members**

Member Name	Affiliation
Dr. Lorraine Turner Superintendent	Russell County Public Schools
Diane Tomlinson Director of 21 st Century Grants	Russell County Public Schools
Peggy Baker Dean of Engineering	Southwest Virginia Community College
Barbara Fuller Dean of Business Division	Southwest Virginia Community College
Dr. Mary A. Quillen Director, UVA Southwest Center	University of Virginia
Dr. David Prior Chancellor	University of Virginia College at Wise
The Honorable Dan Bowling Delegate	Virginia House of Delegates
Joey Gillespie Director	Yes, Virginia Virginia Economic Development Partnership
Brian Hooker Principal	Russell County Career and Technical Center
Tony Dodi Mayor	Town of Lebanon
Dr. Robert H. Tomlinson Vice President of Instruction	Southwest Virginia Community College
Shannon R. Blevins Director of Economic Development	University of Virginia College at Wise
The Honorable Bill Phillips Delegate	Virginia House of Delegates

Member Name	Affiliation
Kelly Robinson	Alcoa Wheel Products
Rachel Fawlkes Executive Director	Southwest Virginia Higher Education Center
The Honorable Phillip Puckett Senator	Virginia State Senate
Stephanie Taylor Project Manager	Virginia Department of Business Assistance
Stan C. Kunigelis Biology Professor	University of Virginia College at Wise
Katherine Vande Brake Dean of the School of Arts and Sciences	King College
The Honorable Terry Kilgore Delegate	Virginia House of Delegates
Georgia Mc Cay Administrative Assistant	Elk Garden Elementary School
Ron Bostic CPA	Bostic, Tucker and Company
Anthony Bush Principal	Honaker High School
Rick Chafin General Plant Manager	Appalachian Electric Power Clinch River Plant
Harry Rutherford Chairman	Russell County IDA
Linda Midgett Director of Community Services	People Incorporated of Southwest Virginia
The Honorable Joe Johnson Delegate	Virginia House of Delegates

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Lorraine Turner, Superintendent,
(Name) (Title)

with Russell County Public Schools, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Lorraine Turner
(Signature)

01/23/08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Diane C. Tomlinson, Dir. 21st CCLC,
(Name) (Title)

with Russell County Schools, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Diane C. Tomlinson
(Signature)

1-26-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Peggy Barber, Dean of Engineering,
(Name) (Title)
with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Peggy Barber
(Signature)

Jan 24, 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Barbara J. Fuller, Business Division Director,
(Name) (Title)
with Southwest Virginia Community College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Barbara J. Fuller
(Signature)

1-28-2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Mary A. Quillen, Ph.D., Director, UVA-SW Center
(Name) (Title)

with University of Virginia, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Mary A. Quillen
(Signature)

1-18-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

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for Lifelong Initiatives for Future Education)

Advisory Council

I, DAVID PRIOR, CHANCELLOR,
(Name) (Title)

with UVA-WISE, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.


(Signature)

30 January 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
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for Lifelong Initiatives for Future Education)**

Advisory Council

I, DANNY C "DAN" BOWLING, Delegate,
(Name) (Title)
with House of Delegates, District 3, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Danny C. "Dan" Bowling 1-22-2008
(Signature) (Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

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for Lifelong Initiatives for Future Education)

Advisory Council

I, Joey Gillespie, Director,
(Name) (Title)

with Yes Virginia, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.


(Signature)

1-28-08
(Date)

The Pathways Academy

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and Technical Academy**

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Advisory Council

I, Brian Hooker, Principal (RCCD),
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Brian Hooker
(Signature)

1-28-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, TONY DUDI, MAYOR,
(Name) (Title)

with TOWN OF LEBANON, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1.25.08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

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(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

Virginia Coalfield Economic Development Authority (VCEDA),
(Name) (Title)

with _____, ~~do~~ hereby certify
(Name of Business, Organization, School) does

that ~~it~~ will be a member and participant of the ~~Planning~~
it Advisory Council

~~Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.~~

Jonathan Belding
(Signature)

January 28, 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Robert H. Tomlinson, VP of Instruction,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Robert H Tomlinson
(Signature)

Jan. 21, 2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Bill Phillips, Vice President/Member
(Name) (Title)

with Da Homey, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

[Signature]
(Signature)

1.22.08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Shannon R. Blevins, Dir. Economic Development,
(Name) (Title)

with The University of Va's College at Wise, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Shannon R. Blevins
(Signature)

1/25/18
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Kelly Robinson, HR Generalist,
(Name) (Title)
with Alcoa Wheel Products, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Kelly Robinson
(Signature)

1-25-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Rachel D. Fowlkes, Ex. Director,
(Name) (Title)

with SW VA Higher Educ. Center, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Rachel D Fowlkes
(Signature)

1-23-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Phillip Puckett, Senator,
(Name) (Title)

with Virginia State Senate, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-22-08
(Date)

**The Pathways Academy
Russell County Governor's Career and
Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and
Mathematics for Lifelong Initiatives for Future
Education)**

Advisory Council

**I, Barbara M. Willis, Executive Director, with the
Southwest Virginia Public Education Consortium, do
hereby certify that I will be a member and
participant of the Advisory Committee for The
Pathways Academy, the Russell County Governor's
Career and Technical Academy.**



(Signature)

January 21, 2008

(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Stephanie M. Taylor, Project Manager
(Name) (Title)
with VA Dept. of Business Assistance do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Stephanie M Taylor 01/30/08
(Signature) (Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Stan C. Kuygetis, Bial Prot,
(Name) (Title)

with UVa-Wise, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

S. C. Kuygetis
(Signature)

01-23-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Katherine Vande Brake, Dean, School of Arts + Sciences,
(Name) (Title),
with King College, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Katherine Vande Brake
(Signature)

1/28/2008
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Terry Kilgore, Delegato,
(Name) (Title)

with _____, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Terry Kilgore
(Signature)

11/22/08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Sciences, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Georgia McCoy, Administrative Assistant
(Name) (Title)
with ELK Garden Elem., do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

Georgia McCoy 1-29-08
(Signature) (Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Ron Bostic, CPA,
(Name) (Title)

with Bostic, Tucker & Company, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)

1-28-08

(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE

**(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Anthony L. Bush, Principal,
(Name) (Title)

with HONAKER High, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.


(Signature)

1-29-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Advisory Council

I, Rick Chafin, General Plant Manager,
(Name) (Title)

with AEP Clinch River Plant, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Advisory
Council for The Pathways Academy, the Russell**

County Governor's Career and Technical Academy.

Ricky L. Chafin

(Signature)

1-29-08

(Date)

*Other employees of AEP Clinch River Plant may be
appointed in my absence.*

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)

Advisory Council

I, Harry Rutherford, Chairman,
(Name) (Title)
with Russell County IDA, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

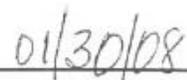
**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

**I, Linda Midgett, Director of Community Services,
with People Incorporated of SW VA, do hereby certify
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)



(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology, Engineering, and Mathematics
for Lifelong Initiatives for Future Education)**

Advisory Council

I, Joe Johnson, Delegate,
(Name) (Title)
Virginia
with House of Delegates, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Joseph P. Johnson Jr
(Signature)

Jan 23, 2008
(Date)

APPENDIX F:
PLANNING COMMITTEE

**STEM for LIFE Governor's Academy
Planning Committee Members**

NAME	AFFILIATION	CONTACT INFORMATION
Lorraine Turner	Russell County Schools	lturner@russell.k12.va.us
Diane Tomlinson	Russell County Schools	dtomlins@russell.k12.va.us
Peggy Barber	Southwest Virginia Community College Dean of Engineering	peggy.barber@sw.edu
Barbara Fuller	Southwest Virginia Community College Dean of Business	barbara.fuller@sw.edu
Mary Quillen	Southwest Virginia Higher Education Center Higher Education Center (representing University of Virginia)	P. O. Box 1987 Abingdon, VA 24212
Dan Bowling	Virginia House of Delegates	P. O. Box Oakwood, VA 24631
Joe Gillespie	Virginia Economic Development Partnership	jgillespie@Yes.virginia.org
Brian Hooker	Principal – Russell County Career and Technical Center	bhooker@russell.k12.va.us
Nelson A. Dodi	Mayor – Town of Lebanon	tdodi@russell.k12.va.us
Robert Tomlinson	Southwest Virginia Community College (Vice-President of Instruction)	bob.tomlinson@sw.edu
Clarence Phillips	Virginia House of Delegates	P. O. Box 36 Castlewood, VA 2422
Shannon Blevins	Director of Economic Development University of Virginia's College at Wise	sblevins@UVAwise.edu
Kelly Robinson	Alcoa Wheel Products	kelly-robinson@alco.com
Rachel Fowlkes	Executive Director Southwest Virginia Higher Education Center	rachel.fowlkes@swcenter.edu
Phillip Puckett	Virginia State Senator	P. O. Box 399 Lebanon, VA 24224
Barbara Willis	Southwest Virginia Public Education Consortium	bmw7c@UVAwise.edu
Stephanie Taylor	Virginia DBA	stephanie.taylor@vdva.virginia.gov
Stan Kunigelis	Professor of Biology University of Virginia's College at Wise	Sck2r@UVAwise.edu

NAME	AFFILIATION	CONTACT INFORMATION
Mark Estepp	Southwest Virginia Community College President	mark.estepp@sw.edu
Katie Vande Brake	King College Instructor	kgrande@king.edu
Terry Kilgore	Virginia House of Delegates	Del.Kilgore@house.state.va.us
Ron Bostic	Bostic, Tucker and Company	rbostic@bthcpa.com
Jani Purtee	Teacher of Engineering Russell County Schools	jpurtee@russell.k12.va.us
Rick L. Chafin	Appalachian Electric Power Company Clinch River Plant	rchafin@aep.com

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Lorraine C. Turner, Superintendent,
(Name) (Title)
with Russell County Public Schools, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Lorraine C. Turner
(Signature)

01/23/03
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Diane C. Tomlinson, Dir. 21st CCLC,
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Diane C. Tomlinson
(Signature)

1-26-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Peggy Barber, Dean of Engineering
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Peggy Barber
(Signature)

Jan 24, 2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Barbara J Fuller, Business Division Dean,
(Name) (Title)

with Northwest Virginia Community College do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Barbara J Fuller
(Signature)

1-28-2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Mary A. Quillen, Ph.D., Director - UVA-5N Center
(Name) (Title)

with University of Virginia, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Mary A. Quillen
(Signature)

1-18-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, DANNY C. "DAN" BOWLING, Delegate,
(Name) (Title)

with House of Delegates, District 3, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Danny C. "Dan" Bowling
(Signature)

1-22-2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Joey Gillespie, Director,
(Name) (Title)
with Yes Virginia, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Joey Gillespie
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Brian Hooker, Principal (RCCTA),
(Name) (Title)
with Russell County Schools, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning

**Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Brian K Hooker
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

(Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Future Education)

Planning Committee

I, Tony Dodi, Mayor,
(Name) (Title)

with Town of Lebanon, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning Committee for The Pathways Academy, the Russell County Governor's Career and Technical Academy.

Tony Dodi
(Signature)

1.25.08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Robert H. Tomlinson, VP of Instruction,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Robert H. Tomlinson
(Signature)

Jan. 21, 2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology, Engineering, and Mathematics for Lifelong Initiatives for Future Education)

Planning Committee

I, [Signature], [Title]

with [Signature], do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning Committee for The Pathways Academy, the Russell County Governor's Career and Technical Academy.

[Signature]
(Signature)

1-22-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Shannon R. Blevins, Director of Economic Development,
(Name) (Title)

with The University of West Georgia at Vreese, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Shannon R. Blevins
(Signature)

1/25/8
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Kelly Robinson, HR Generalist,
(Name) (Title)

with Alcoa Wheel Products, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Kelly Robinson
(Signature)

1-25-08
(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)**

Planning Committee

I, Phillip Puckett, VA State Senator,
(Name) (Title)
with Virginia Legislative Session, do hereby certify
(Name of Business, Organization, School)
**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-22-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Rachel Fowlkes, Executive Director
(Name) (Title)

with SW. VA. Higher Education Ctr, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Rachel D. Fowlkes
(Signature)

1-23-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, J. Mark Estep, President,
(Name) (Title)

with Southwest Virginia Comm. College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)

(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for Lifelong
Initiatives for Future Education)*

PLANNING COMMITTEE

I, Barbara M. Willis, Executive Director, with the Southwest Virginia Public Education Consortium, do hereby certify that I will be a member and participant of the Planning Committee for The Pathways Academy, the Russell County Governor's Career and Technical Academy.



(Signature)

January 21, 2008

(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Katherine Vande Brake, Dean, School of Arts+Sciences
(Name) (Title)

with King College, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Katherine Vande Brake
(Signature)

1/28/2008
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, Terry Kilgore, Delegate,
(Name) (Title)

with _____, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Terry Kilgore
(Signature)

1/22/08
(Date)

The Pathways Academy

Russell County Governor's Career
and Technical Academy

STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)

Planning Committee

I, JANI PURTEE, TEACHER,
(Name) (Title)

with RUSSELL COUNTY SCHOOLS, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Jani Purtee
(Signature)

1-28-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

**I, Rick Chafin, General Plant Manager,
(Name) (Title)
with AEP Clinch River Plant, do hereby certify
(Name of Business, Organization, School)
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**



(Signature)

1-29-08

(Date)

*Other employees of AEP Clinch River Plant may be
appointed in my absence.*

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

**I, Danny Foster, Youth Services Coordinator,
with People Incorporated of SW VA, do hereby certify
that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**

Danny Foster

(Signature)

01/30/08

(Date)

The Pathways Academy

**Russell County Governor's Career
and Technical Academy**

**STEM for LIFE
(Science, Technology,
Engineering, and Mathematics for
Lifelong Initiatives for Future
Education)**

Planning Committee

I, Joe Johnson, Delegate,
(Name) (Title)

with Virginia House of Delegates, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Joseph P. Johnson, Sr.
(Signature)

Jan 23, 2008
(Date)

The Pathways Academy

*Russell County Governor's Career and Technical
Academy*

STEM for LIFE

*[Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education]*

Planning Committee

I, Stephanie M. Taylor, Project Manager
(Name) (Title)

with VA Dept. of Business Assistance, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning

Committee for The Pathways Academy, the Russell

County Governor's Career and Technical Academy.

Stephanie M. Taylor
(Signature)

01/30/08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Stan C. Kunigeli, Biol Prof,
(Name) (Title)

with UVA-Wise, do hereby certify
(Name of Business, Organization, School)

that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.

S. C. Kunigeli
(Signature)

01-23-08
(Date)

The Pathways Academy

Russell County Governor's Career and Technical Academy

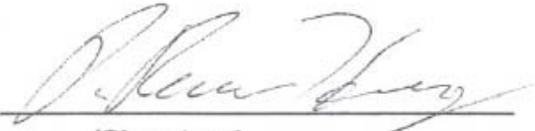
STEM for LIFE

*(Science, Technology, Engineering, and Mathematics for
Lifelong Initiatives for Future Education)*

Planning Committee

I, Reece Henry, JAG Coordinator,
(Name) (Title)
with RCCTC, do hereby certify
(Name of Business, Organization, School)

**that I will be a member and participant of the Planning
Committee for The Pathways Academy, the Russell
County Governor's Career and Technical Academy.**


(Signature)

1-30-08
(Date)

APPENDIX G:
MEMORANDUM OF UNDERSTANDING

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

People Incorporated of Southwest Virginia

This agreement is made and entered into on the 30th day of February, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and People Incorporated of Southwest Virginia, hereinafter referred to as People Incorporated.

PURPOSE: It is the mutual desire of Russell County Public Schools and People Incorporated to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
- B. To identify and recruit groups of STEM participants to participate in campus visits provided by People Incorporated.**
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**
- D. To keep People Incorporated fully advised of any changes**

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

People Incorporated of Southwest Virginia

This agreement is made and entered into on the 30th day of February, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and People Incorporated of Southwest Virginia, hereinafter referred to as People Incorporated.

PURPOSE: It is the mutual desire of Russell County Public Schools and People Incorporated to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To identify and recruit groups of STEM participants to participate in campus visits provided by People Incorporated.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**
 - D. To keep People Incorporated fully advised of any changes which may affect the agency's performance under this agreement.**

Memorandum of Agreement
Page 2

II. People Incorporated agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.**
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.**
- C. To allow one person from People Incorporated to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:**
 - 1. how students will be recruited, selected, and admitted;**
 - 2. a code of student conduct and attendance;**
 - 3. how staff will be recruited, selected, and assigned; and,**
 - 4. staff development topics.**
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:**
 - 1. Provide opportunities for STEM participants to attend campus visits in conjunction with its Project Discovery program.**
 - 2. Assist the school counselors' to access applicable People Incorporated program services for families of STEM participants.**
 - 3. Offer information to parents and guardians of STEM participants on post secondary education financial aid and the college application process.**

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.**

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.**

- C. If People Incorporated fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.**

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.**

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

**PEOPLE INCORPORATED OF
SOUTHWEST VIRGINIA**

BY R. H. G. C.

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

University of Virginia's College at Wise

This agreement is made and entered into on the 22 day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and University of Virginia's College at Wise, hereinafter referred to as Va-Wise.

PURPOSE: It is the mutual desire of Russell County Public Schools and Va-Wise to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B. To make available times for Va-Wise personnel to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

Page 2

- D. To keep Dr. Stan Kungelis fully advised of any changes which may affect his performance under this agreement.

II. UVA-Wise agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

- C. To allow one person from UVA-Wise to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:
 - 1. how students will be recruited, selected, and admitted;
 - 2. a code of student conduct and attendance;
 - 3. how staff will be recruited, selected, and assigned; and,
 - 4. staff development topics.

- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

- 1. Development of 2wk summer program in scientific research.
- 2. Introductory age-appropriate research experiences (1-3days)
- 3. Research-based classroom presentations by UVA-Wise faculty

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If UVA-Wise fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Loraine C. Turner

University of Virginia's College at Wise

BY Dickson W. Blackburn
Provost & Senior Vice Chancellor

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

The University of Virginia's College at Wise

This agreement is made and entered into on the sixteenth day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and The University of Virginia's College at Wise, hereinafter referred to as UVa-Wise.

PURPOSE: It is the mutual desire of Russell County Public Schools and UVa-Wise to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. **Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
 - B. To make available times for representatives of UVa-Wise to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

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D. To keep UVa-Wise fully advised of any changes which may affect UVa-Wise' performance under this agreement.

II. The University of Virginia at Wise agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from UVa-Wise to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Provide tours of the Southwest Virginia Technology Development Center and the main campus of The University of Virginia's College at Wise
2. Provide UVa-Wise representatives to participate in career fairs, informational sessions and other activities designed to inform students of educational and career opportunities.
3. Provide opportunities for job shadowing and mentoring
4. Explore opportunities for utilizing classroom space at the Southwest Virginia Technology Development Center located in Lebanon for Academy programs, activities and events.

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
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B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.

C. If The University of Virginia's College at Wise fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.

D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine G. Turner

02/01/08
Date

The University of Virginia's College at Wise

BY David J. Prior
David J. Prior, Chancellor

30 January 2008
Date

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

__Southwest Virginia Community College__

This agreement is made and entered into on the 25 day of January , 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Southwest Virginia Community College , hereinafter referred to as SVCC .

PURPOSE: It is the mutual desire of Russell County Public Schools and SVCC to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for SVCC to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement

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- D. To keep ___ SVCC ___ fully advised of any changes which may affect ___ SVCC ___ performance under this agreement.**

II. ___ SVCC ___ agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.**
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.**
- C. To allow one person from ___ SVCC ___ to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:
 - 1. how students will be recruited, selected, and admitted;**
 - 2. a code of student conduct and attendance;**
 - 3. how staff will be recruited, selected, and assigned; and,**
 - 4. staff development topics.****
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:
 - 1. Provide coursework for teachers and counselors _____**
 - 2. Provide speakers for 6th grade classes _____**
 - 3. Provide campus visits for students to STEM classrooms__****

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.**

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.**

- C. If SVCC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.**

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.**

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

Southwest Virginia Community College

BY Robert H. Tomlinson
Vice President of Instruction

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

Town of Lebanon

This agreement is made and entered into on the 16th day of 2008, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Town of Lebanon, hereinafter referred to as Town.

PURPOSE: It is the mutual desire of Russell County Public Schools and Town of Lebanon to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
 - B. To make available times for Town employees to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement

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D. To keep Town of Lebanon fully advised of any changes which may affect Town of Lebanon performance under this agreement.

II. Town of Lebanon agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from Town of Lebanon to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Serve on Advisory
2. Participate in classroom presentations
3. Provide hands-on experiences in science & math

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement
Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If Town of Lebanon fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

Town of Lebanon

BY Jay Orr

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

The Southwest Virginia Public Education Consortium

This agreement is made and entered into on the 16 day of January, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and the Southwest Virginia Public Education Consortium, hereinafter referred to as SVPEC.

PURPOSE: It is the mutual desire of Russell County Public Schools and SVPEC to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for Barbara Willis, SVPEC Director, to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement

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D. To keep SVPEC fully advised of any changes which may affect the performance under this agreement.

II. SVPEC agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from SVPEC to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

- 1. how students will be recruited, selected, and admitted;**
- 2. a code of student conduct and attendance;**
- 3. how staff will be recruited, selected, and assigned; and,**
- 4. staff development topics.**

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

- 1. Advisory Council**
- 2. Planning Committee**
- 3. Summer Institute Keyboarding**
- 4. Speak to Students, Parents, etc.**

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.**

- C. If SVPEC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.**

- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.**

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

**Southwest Virginia Public
Education Consortium**

BY Barbara M. Willis

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

VEDP

This agreement is made and entered into on the 22 day of January 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Virginia's Education Development, hereinafter referred to as VEDP.

PURPOSE: It is the mutual desire of Russell County Public Schools and VEDP to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B. To make available times for VEDP Representatives to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement
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D. To keep VEDP fully advised of any changes which may affect VEDP's performance under this agreement.

II. VEDP agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

REGARDING VEDP'S INVOLVEMENT IN THE PATHWAYS ACADEMY

C. To allow one person from VEDP to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

- 1. how students will be recruited, selected, and admitted;
- 2. a code of student conduct and attendance;
- 3. how staff will be recruited, selected, and assigned; and,
- 4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

- 1. TO SERVE ON ADVISORY COMMITTEE
- 2. TO SPEAK TO STUDENTS, PARENTS, GUIDANCE COUNSELORS
- 3. IN EACH SCHOOL

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

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- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If VEDP fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination. *VEDP shall have the right to terminate this agreement at any time upon 30 days notice of termination.*
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

VEDP

BY Joe Bellinger

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

AEP - CLINCH RIVER PLANT

This agreement is made and entered into on the 16th day of JANUARY, 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Appalachian Electric hereinafter referred to as AEP Power.

PURPOSE: It is the mutual desire of Russell County Public Schools and AEP - CLINCH RIVER PLANT to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A.** To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.
- B.** To make available times for EMPLOYEES to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.
- C.** That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.

Memorandum of Agreement
Page 2

D. To keep AFP fully advised of any changes which may affect AFP's performance under this agreement.

II. AFP- CLINCH RIVER PLANT agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from AFP- CLINCH RIVER PLANT to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Items I, II, III, VI, VII & X ON WAYS TO PARTNER.
2. GUIDANCE COUNSELOR - ONE ON ONE WITH STUDENTS
3. UNDERWRITE EVENTS (ASSIST WITH)

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If AEP-CLINCH RIVER PLANT fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY Lorraine C. Turner

[Signature] (Edwin Sheppard)
BY Kenn M. Newman-Rader

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And

Virginia Intermont College

This agreement is made and entered into on the sixth day of February 2008, by, and between the **Russell County Public Schools**, hereinafter referred to as **Russell County**, and Virginia Intermont, hereinafter referred to as VIC.

PURPOSE: It is the mutual desire of **Russell County Public Schools** and VIC to support a **Governor's Career and Technology Academy**. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of **Russell County** and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

- I. Russell County Public Schools agrees:**
 - A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
 - B. To make available times for VIC to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
 - C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement
Page 2

- D. To keep Janice Stevens fully advised of any changes which may affect VIC's performance under this agreement.

II. VIC agrees:

- A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.
- B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.
- C. To allow one person from VIC to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:
 - 1. how students will be recruited, selected, and admitted;
 - 2. a code of student conduct and attendance;
 - 3. how staff will be recruited, selected, and assigned; and,
 - 4. staff development topics.
- D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

- 1. Serve on Planning Committee
- 2. Speak to students, parents and guidance counselors
- 3. Have students, parents visit our site
- 4. Participate in summer academy

III. It is mutually understood and agreed:

- A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

Memorandum of Agreement

Page 3

- B. The name of either party to the Agreement shall be used only in advertising, publicity, or news releases related to the work undertaken under the terms of the Advisory Council. Any other written or oral presentations must have prior consent from either party.
- C. If VIC fails to substantially perform its obligations, the Russell County Public Schools shall have the right to terminate this agreement. The Russell County Public Schools shall give a 30-day notice of termination.
- D. Performance of this Agreement shall begin on January 16, 2008, and shall not exceed beyond January 16, 2011. It may be extended in its present form or in a modified form by mutual written agreement.

IN WITNESS WHEREOF, the parties have signed their names effective the day and year first above written.

RUSSELL COUNTY SCHOOLS

BY _____

Virginia Intermont

BY Anne W. Shumaker, President

Janice A. Stevens

Daniel H. Fetters

Hongsun Li

John R. Stewart

MEMORANDUM OF UNDERSTANDING

Between the

Russell County Public Schools

And
Bostic, Tucker & Company
Ron Bostic

This agreement is made and entered into on the 28th day of January 2008, by, and between the Russell County Public Schools, hereinafter referred to as Russell County, and Bostic, Tucker & Co., hereinafter referred to as Bostic, Tucker & Co..

PURPOSE: It is the mutual desire of Russell County Public Schools and Bostic, Tucker & Co. to support a Governor's Career and Technology Academy. It is the belief of the collaborative parties that this cooperative program will be to their mutual benefit and to the benefit of the students and the people of Russell County and the other counties in the region.

AGREEMENT: The contracting parties agree as follows:

I. Russell County Public Schools agrees:

- A. To use the money from the Governor's Career and Technology Academy to create classes, career opportunities, and postsecondary opportunities for the students of Russell County and later to offer any classes/other opportunities to surrounding counties in the region in the areas of science, technology, engineering, mathematics (STEM) literacy, and instructional technology to prepare them for high-demand, high-wage, and high-skills careers in Virginia.**
- B. To make available times for Bostic, Tucker & Co. to talk with students beginning in the sixth grade through their Senior year regarding career opportunities, job possibilities, and the postsecondary education it would take to reach those goals; and, as a member of the Advisory Council to offer suggestions about The Pathways Academy; and, to meet with parents to let them know of the opportunities available to their children.**
- C. That Lorraine Turner/her designated representative will act for the Russell County Public Schools in administering this Agreement.**

Memorandum of Agreement
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D. To keep Bostic, Tucker & Co. fully advised of any changes which may affect Bostic, Tucker & Co. performance under this agreement.

II. Bostic, Tucker & Co. agrees:

A. That Russell County Public Schools shall be responsible for the overall direction of the work to be performed by guidance counselors and the principals of the school under this agreement.

B. To prepare such interim reports/supply any data to Russell County Public Schools as may be mutually agreed upon and to prepare a summary report on, or about June of each year.

C. To allow one person from Bostic, Tucker & Co. to sit on the Advisory Council to make decisions regarding the operation of the Governor's Career and Technology Academy, hereafter known as The Pathways Academy. As a participant of this advisory council, that person will help in deciding:

1. how students will be recruited, selected, and admitted;
2. a code of student conduct and attendance;
3. how staff will be recruited, selected, and assigned; and,
4. staff development topics.

D. To participate in the following ways as partners in this Governor's Career and Technical Academy in the following ways:

1. Speak to middle school classes
2. support internships
3. workshops for counselors

III. It is mutually understood and agreed:

A. Funds made available to the Russell County Public Schools under the terms of this Agreement shall be expended in accordance with the regulations governing the grant.

APPENDIX H:
STATEMENT OF ASSURANCES

Governor's Career and Technical Academy
STATEMENT OF ASSURANCES

The authorized signature on this page certifies to the Virginia Department of Education that the authorized official assures that:

1. The planning committee has reviewed the provisions of *Administrative Procedures Guide for the Establishment of Governor's Career and Technical Academies* outlined in the Guidance Manual, and understands that an implementation proposal will need to address these criteria and/or others approved by the Virginia Board of Education.
2. The planning committee agrees to follow the guidelines set forth in the *Administrative Procedures for the Establishment of Governor's Career and Technical Academies* document.
3. If the Governor's Career and Technical Academy will be a jointly operated program, an ongoing governing board will be established or maintained to reflect current Board of Education regulations relative to jointly operated schools and programs.
4. A public, government entity will serve as the grant fiscal agent.

Certification by Authorized or Institutional Official:

The applicant certifies that to the best of his/her knowledge the information in this application is correct, that the filing of this application is duly authorized by the partners participating in this process to establish a Governor's Career and Technical Academy, and that the applicant will comply with the statement of assurances.

Lorraine C. Turner	Superintendent
Typed or Printed Name of Authorized Official	Title
	1/28/08
Signature of Authorized Official	Date

APPENDIX I:
FISCAL AGENT

C. Certification for Fiscal Agent

The Russell County Public Schools will be the fiscal agent for the Governor's Career and Technical Academy, known as the Pathways Academy, STEM for LIFE. This public entity is willing and has served as the fiscal agent for many grants, including this one.

Lorraine A. Turner Russell County Public Schools
Superintendent
01/29/08
Date

APPENDIX J:
BUDGET

STEM for LIFE
Governor's Career and Technical Academy
Budget

A. Direct Costs	State Funds	Perkins Funds	Other Funds (Local or grant funds to be described in Budget Narrative)	In-Kind
1. Personnel – 1000	\$41,000			
2. Employee Benefits – 2000	6,500			
3. Purchase/Contractual Services – 3000	15,060			
4. Internal Services – 4000	0			
5. Staff Development – 5000	16,000			
6. Summer Activities – 5000	20,600			
7. Travel - 5000	0			
8. Contractual Services – 5000	0			
9. Materials and Supplies – 6000	840			
10. Equipment – 8000	0			
11. Facilities – 8000	0			
Indirect Costs	0			
Total	\$100,000			