



County Manager, Lance Metzler signing CTE proclamation during CTE month. Mr. Metzler is joined by CTE Director, Ken Scott, RCC President, Mark Kinlaw; and County Commissioner, Mark Richardson.

We are proud of the impact that the Career and Technical Programs (CTE) of Rockingham County Schools are having on our local community. Rockingham County Schools currently employ 57 teachers along with five Career Coordinators, an Instructional Management Coordinator and two part-time administrative/technical assistants. We are fortunate to have a great community college partner (RCC) and a business community that is quickly emerging as a integral factor in the progress of our programs with efforts like Reset Rockingham and RockATOP.

The mission of the CTE Program of Rockingham County is to “connect student talent to a rewarding career.” Gallup recently concluded that the chief aim of everyone in the world is “a good job.” Taking a little liberty with Gallup’s finding we can say that every person wants to find their “calling.” CTE used to be known by many as “vocational” education. Voca is the Latin word for “calling.” Hence, CTE has a duty to first help students to discover their voca (calling) and second to turn their voca into a vocation (career).

The next sections will discuss the CTE programs’ strategies of helping students “discover their strengths, understand the world needs and find a way to apply their strengths to the world needs.” If we are to help students to understand what the world needs and how their talents can be applied to such need, then we must first help students to understand how the world works. CTE believes that it can make the greatest contribution to this goal by helping students to understand both how the world works from a “technical skills” standpoint and how the world works from an interpersonal or “soft skills” standpoint.” CTE is by no means alone in this endeavor- regular education teachers, business leaders and post-secondary leaders are involved in the same business. Hence, the final section of this document will discuss how CTE works with local partners in an effort to meet this goal.

Specifically the CTE programs of Rockingham County will:

a) Help our students understand how the world works from a technical perspective. This mission entails the development of a comprehensive career pathway program. Over the next four years CTE staff in conjunction with stakeholders will provide career exploration opportunities, administer interest assessments, assist in the development of 4-6 year plans, develop career oriented course sequences, promote credential attainment and RCC course credit, and will provide an increasing level of work-based experiences for our students. Such an emphasis on helping all students understand how the world works from a technical standpoint will not only prepare our students for rewarding careers but will also drive innovation and entrepreneurship within our community. CTE staff will also secure cutting edge technology that will be used to support and develop critical technical skills.

b) Help our students understand how the world works from an interpersonal and "soft skills" perspective. CTE staff will work with Reset Rockingham (non-profits, business and community leaders, core content teachers and Rockingham Community College staff) to define the 21st century career skills that Rockingham County considers to be crucial to the success of our students and the growth of our county. Such skills would include Work Ethic, Collaboration and Communication.

c) Demonstrate how certain thinking skills are crucial to success in the 21st Century Economy and are transferable across virtually all content areas. CTE staff will demonstrate how content understanding, analytical thinking, critical thinking, adaptive reasoning and creative thinking are integral to the most critical skill of problem solving. Evidence of problem solving contained within student work will be consistently posted on our district's CTE website. Further, CTE staff will demonstrate how many of the tools and content contained within CTE classes can help support the "ways of thinking" that core curriculum teachers are attempting to develop in their students.

d) Continue to cultivate valuable partnerships with our community college, our local business community, chambers of commerce, local economic development entities, non-profit organizations, NC Works and any other stakeholder interested in the economic well-being of our community.

"For too long, education is something that we have tried to DO TO a student, rather than encouraging and unleashing their God-given talents and aspirations. We have unwisely advised every youth that the answer to success is to go to college, instead of a more humane message 'discover your strengths, understand the world needs and find a way to apply your strengths to the world needs.'"

Hans Meeder, 2016



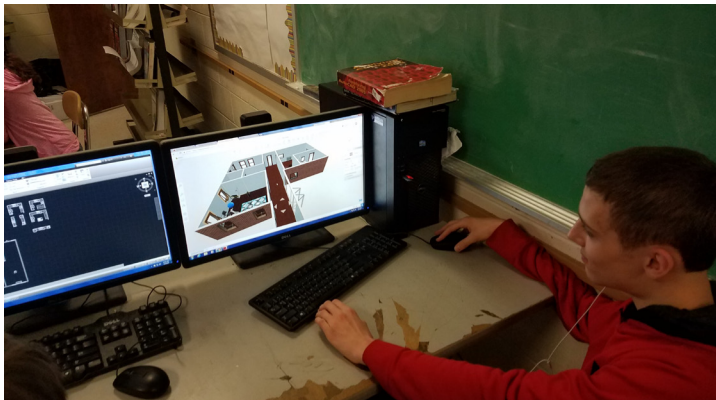
RockATOP Apprenticeship hopefuls during Invitational at RCC

a) Develop specific technical skills supported by the use of cutting edge technology.

b) Define the 21st century career skills (soft skills) that Rockingham County considers to be crucial to the success of our students and the growth of our county.



RCHS Senior, Adam Buck discusses online marketing strategy with Reidsville Chamber of Commerce



RCHS Drafting Class

c) Demonstrate how an education that is characterized by the development of certain “thinking skills” is crucial to success in the 21st Century Economy and is transferable across virtually all content areas.

d) Continue to pursue partnerships that will result in new opportunities for student internships, apprenticeships, and credential attainment.



Dr. Scott presentation at Reset Rockingham meeting

TECHNICAL SKILLS



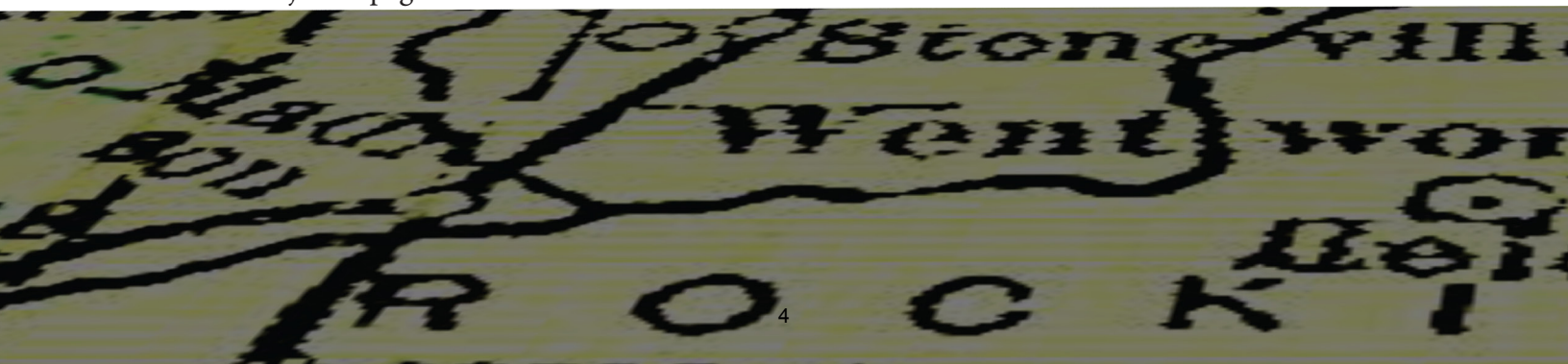
How will the CTE programs develop in students the technical skills necessary for success after high school?

- Help students discover their career interests..
- Engage students in authentic projects.
- Help students obtain valuable work-based experiences and industry recognized credentials.
- Secure industry standard software and equipment required to develop specific technical skills as well as, many of the general skills such as the application of content, analytical and creative thinking that are important to virtually all careers.

The purpose of all CTE curriculum is to develop the technical skills within our students which they will need to establish a rewarding career. Our CTE program serves the student in this respect, but also serves the community by helping to steer students toward our most in-demand careers. In essence, our CTE teachers and career coordinators attempt to help students discover their talents and help them develop such talent in a way that can fulfill real needs within our local and regional economy.

Discovering Student Talent and Interest

Our Transitional Career Development Coordinator, Ms. Lydia Craddock, conducted presentations regarding career pathways to all 8th grade students. The presentations were conducted to individual classes during either (2) 45 minute presentations or (1) 90 minute presentation. During this time, Ms. Craddock had students create a College Foundation of North Carolina (CFNC) account and administered a career cluster survey to them. The interest inventory serves three vital purposes for CTE. First, the results will help students determine career pathways that are consistent with their interests. Second, the results will help the district plan for the types of CTE classes that we will need to offer in the coming years. And third, it will help us to identify gaps in the interests of our students and the types of careers that are available to them. The results of the survey can be found on the adjacent page.

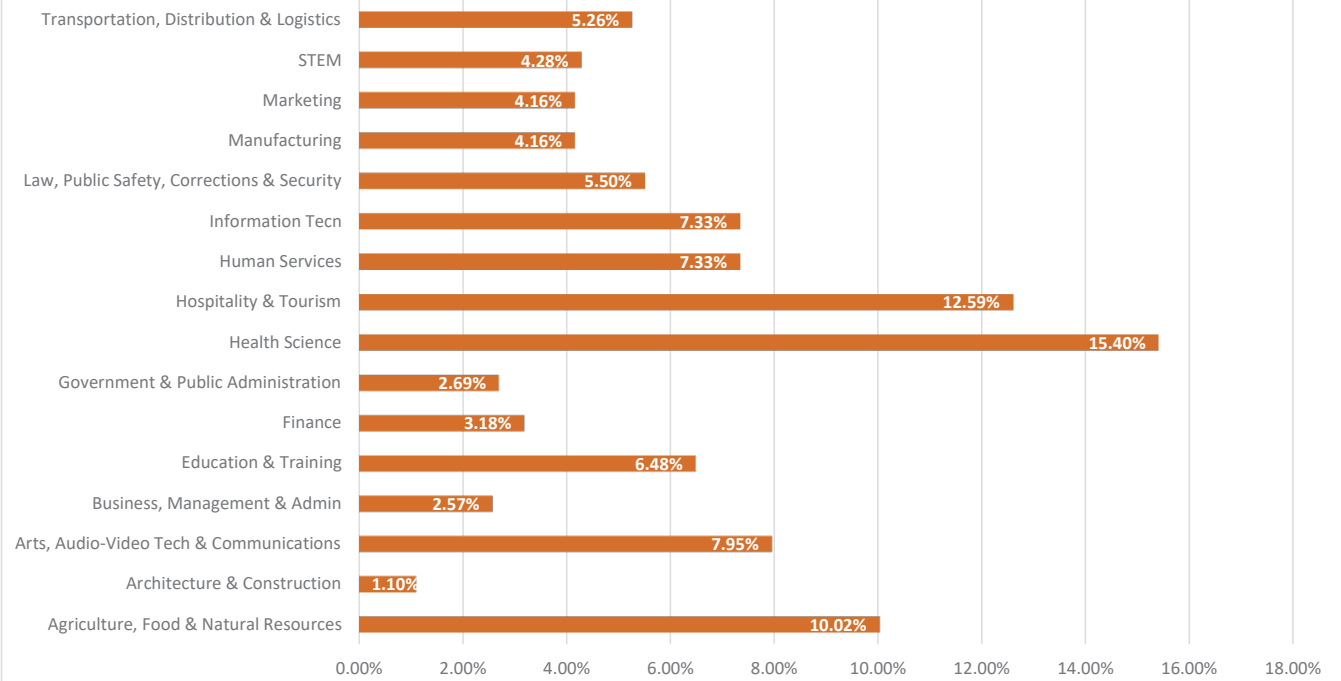




“The problem is not that we don’t have enough jobs for our folks here in Rockingham County. The problem is that the skills that many of our citizens’ possess do not match the needs of the employer.”

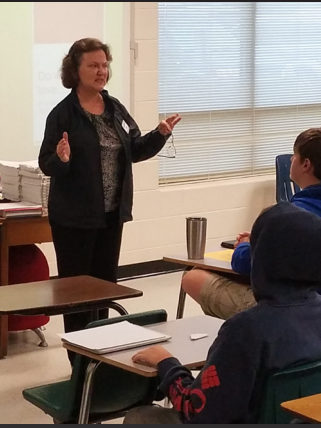
Ms. Ann Wood, (former) Eden Chamber President

8th Grade Student Career Interest



CTE

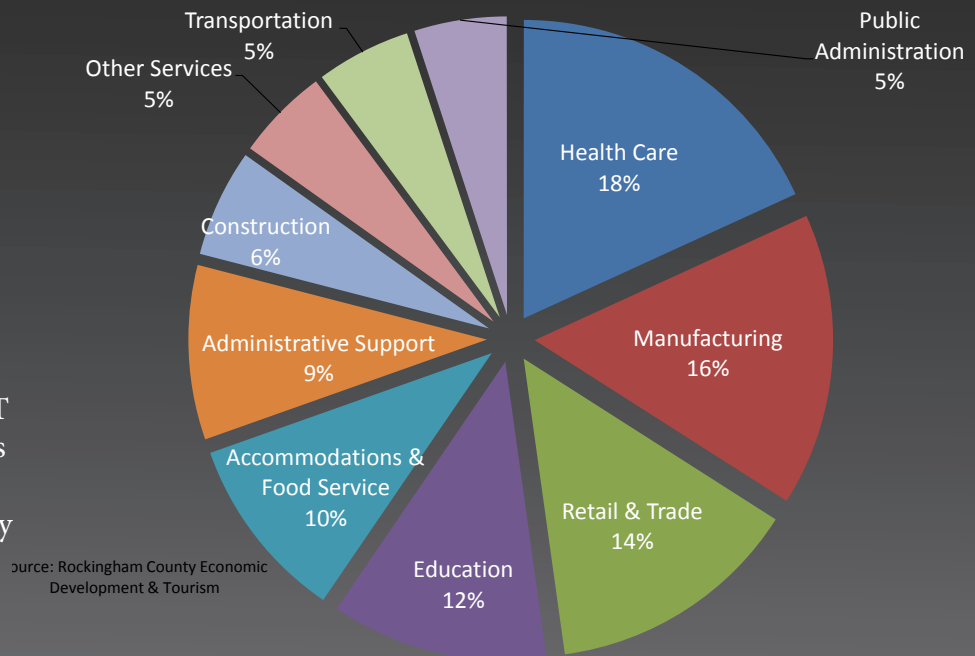
Student Interests and the local job market



Lydia Craddock conducts Interest Inventory at RCMS

The results of the survey pointed to some encouraging news as well as some opportunities for improvement. The fact that 15% of our 8th grade students are interested in a career in health care is encouraging in light of fact that the field of health care makes up 18% of our local workforce. This interest is reflected in a dramatic increase in the number of young people who have elected to enroll in a health science class. The enrollment for our health science classes increased an astounding 285% from a total of 216 students enrolled in 2013-14 to a total of 617 enrolled in health science classes in the 2017-18 school year. We are thrilled about this increase as the increase will yield graduates who go on to pursue careers that are of critical need within our community. Pictured left is TCDC, Lydia Craddock, during an interest inventory administration at Rockingham County Middle School.

Our public safety enrollment has also increased with the addition of an EMT program. We saw a substantial increase in the number of students who enrolled in a public safety; from 136 students enrolled in a public safety in 2015-16 to 223 students enrolled in 2016-17. This constitutes nearly a 70% increase. We expect the numbers of students who choose to enroll in public safety to continue to increase as the EMT program continues to expand. Graduates from our public safety programs will go on to fulfill a real need in our community for fire fighters and emergency medical technicians. Pictured on page 17 is Evan Webb, a RCHS fire fighting student who is currently serving as a volunteer fire fighter at a local station



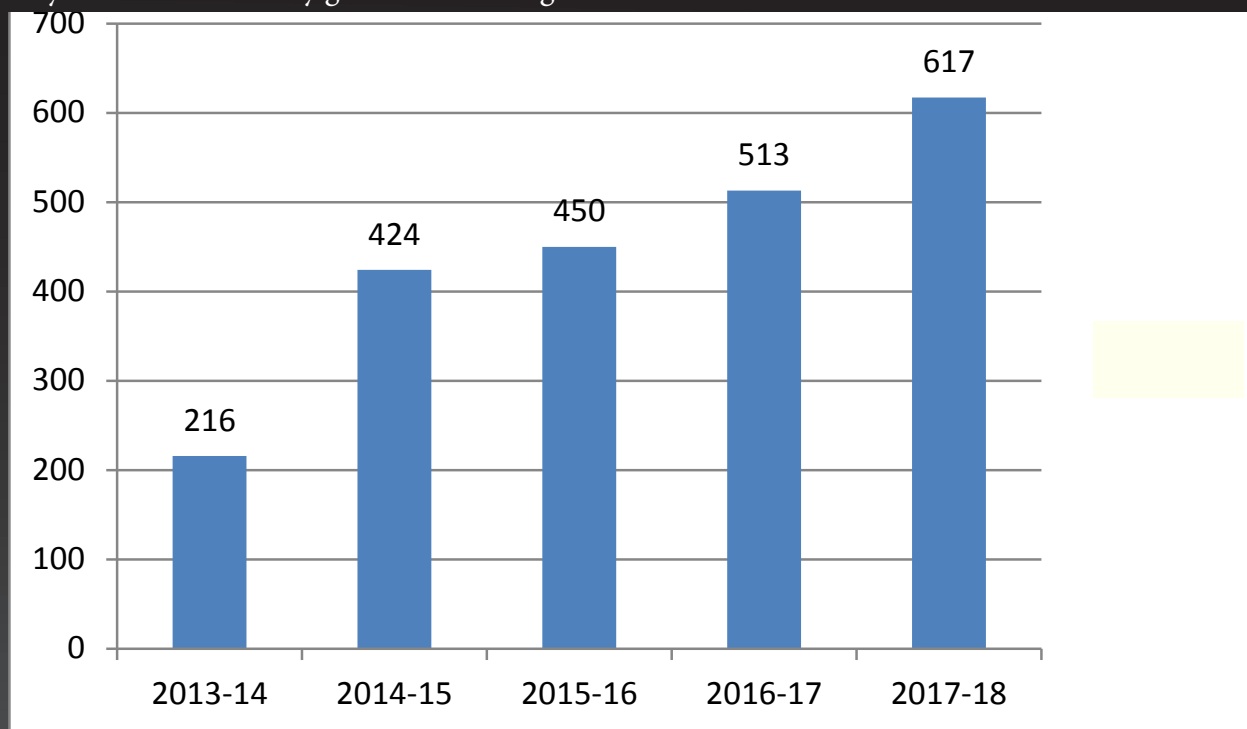
“The point is that young people who have discovered their passion are far more likely to have the will and discipline to learn and do the difficult things that school and work often require.”

Tony Wagner

On the other hand, interest in the advanced manufacturing sector was not nearly as encouraging. The same interest survey indicated that only four percent of our students were interested in a career in advanced manufacturing. This represents a substantial challenge for our community when we consider that advanced manufacturing jobs make up about 16% of the jobs available within our county. While enrollment in Technology, Engineering and Design have remained relatively steady over the past few years, student enrollment in Drafting has declined substantially. Needless to say, it will be extremely important to our local economy and to the young people that will benefit from such high wage careers that we develop a sustained pipeline for this sector of our economy.

Further, data from NC Department of Commerce indicates that 19% of our county’s citizens (25 and older) hold at least a bachelor’s degree; while 13% fail to graduate high school. The economic future of our county may very well hinge on what happens with the middle 67% whose education attainment lies somewhere between a high school diploma and a bachelors degree. The importance is further compounded by the Bureau of Labor statistics that indicate as

many as 30% of high school graduates ages 16 through 24 are not in the work force nor are they included in the unemployment rate since they are not looking for work. These data points underscore a massive opportunity for economic progress within our county. It is imperative that we place these young people on a promising pathway to work before they graduate from high school.

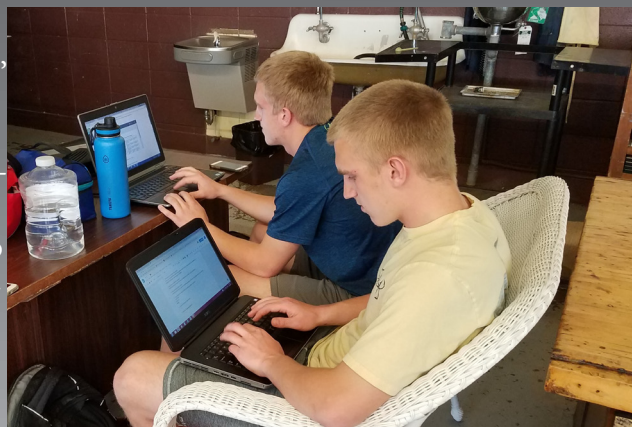


Number of students taking health science classes.

We hope to infuse more advanced manufacturing related experiences to our middle schools over the next four years. Currently computer application type classes dominate our middle grades CTE offerings. While it will remain important for students to arrive at high school with basic word processing and spread sheet skills, we intend to progressively include more technology, engineering and design (TED) offerings over the coming years. RCS was unsuccessful in obtaining the Expanding CTE Grant Award, which would be used to help fund such an effort. We intend to reapply for the grant in August 2018. The funding would help in our effort to jump-start an interest in advanced manufacturing.

If we are able to determine student interest, then we will be able to help them translate that interest into a 4-year high school plan that will help them to develop related skills and help them figure out how their skill set can meet a need that exists within the economy. As students progress through their high school years, we intend for their plans to become increasingly personalized.

This means internship opportunities, advanced studies classes, greater access to a variety of courses via online resources and certainly access to class through RCC. Pictured on the right are twin brothers, Mitchell and Matthew Barker, RCHS engaging in a North Carolina Virtual High School (NCVHS) agri-business class. Both of these Agriculture Completers intend to attend NC State in the fall. Mitchell plans to major in Agriculture Business, while Matthew plans to major in Horticulture Science. RCC and RCS are currently collaborating around the idea of developing an agri-business Pathway for our students during the 2018-19 school year.



RCHS Agriculture Students, Mitchell and Matthew Barker

Strategy: Administer a Career Cluster Survey to all 8th grade students during the 2018-19 School Year and work with middle school counselors to help students translate their career interests into a 4-year plan for high school. IMC, TCDC and CTE Director will conduct a presentation to K-12 counselors in August, 2018 regarding this strategy.



RHS and City of Reidsville Downtown Project

Authentic Projects

CTE's strength is founded in its project based approach to learning. Such projects "check off" several goals of our district's CTE program. We consider project based instruction to occur on three distinct levels. The first level would constitute the expectation that our students present their projects to their peers. During such presentations, students demonstrate a basic knowledge of the content taught, and have the opportunity to practice the critical "soft skill" of effective communication.

The second level calls for a higher level of thinking. This second level places the student in a "critique setting" where they not only present their project but they open themselves up to receive feedback from their peers, teachers and/or community representatives. In such instances, students are expected to defend their solutions when appropriate and are expected to engage in a cycle of continuous improvement based on the feedback. The third level contains all of the components of the first two, but the "evaluators" of the projects are actual clients; meaning that the final product will be produced to meet an actual need within the community. We have termed this third level of project based instruction as "authentic projects." In short, if our students are presenting their projects to their peers, then they are doing well; if they are engaging their peers in a critique of their work, then they are doing better; if their work is being evaluated by actual clients in order to meet an actual need, then they are doing best.

A good example of an authentic project was the Down Town Reidsville Historic Site project. Students from Ms. Barbara McMillan's and Ms. Karen Knable's classes produced multimedia presentations for the Town of Reidsville. The student work allows visitors to Reidsville to scan a QR code with their cell phones. The QR code links them to a (student produced) presentation that provides information about each site. Pictured above are RHS CTE teacher Ms. Karen Knable, RHS CDC, Ms. Yolanda Stubblefield, RHS Principal, Ms. Ann Mitchell, along with Dr. Shotwell and a number of the City of Reidsville Staff.

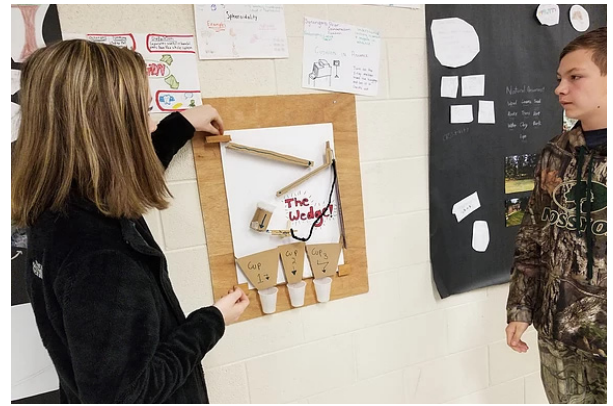
RCHS EMT student, Madison Southard, gave us another example of an authentic CTE project. Madison produced a video clip for the North Carolina Athletic Association's annual Click it or Ticket promotion contest. Madison collaborated with her EMT instructor, Ms. Betty Cardwell, and local emergency medical technicians to produce the video. She actually solicited the aid of an RCHS band student to arrange original background music for the video. Madison's video was selected as one of ten State finalists. The video can be found at: https://www.youtube.com/watch?time_continue=30&v=FaKn23udpkc. Madison is pictured above along with Ms. Cardwell (right) and Ms. Angela Wilson, RCHS Senior Project Advisor. (Madison also wrote a paper detailing the benefits of Career and Technical Education as part of her senior project; found at: <http://rockcte.org/Research%20Paper.pdf>)



RCHS EMT Student, Madison Southard with Betty Jean Cardwell and Angela Wilson

Strategy: CTE funds will be allocated to purchase the equipment and software that will allow our students to produce authentic projects and engage in authentic experiences. Industry standard software would include Inventor, Revit, the entire Adobe Creative Suite. CTE equipment will include analytical devices for TED and health sciences classes, Vex Robotics supplies/ equipment, 2-D and 3-D printers.

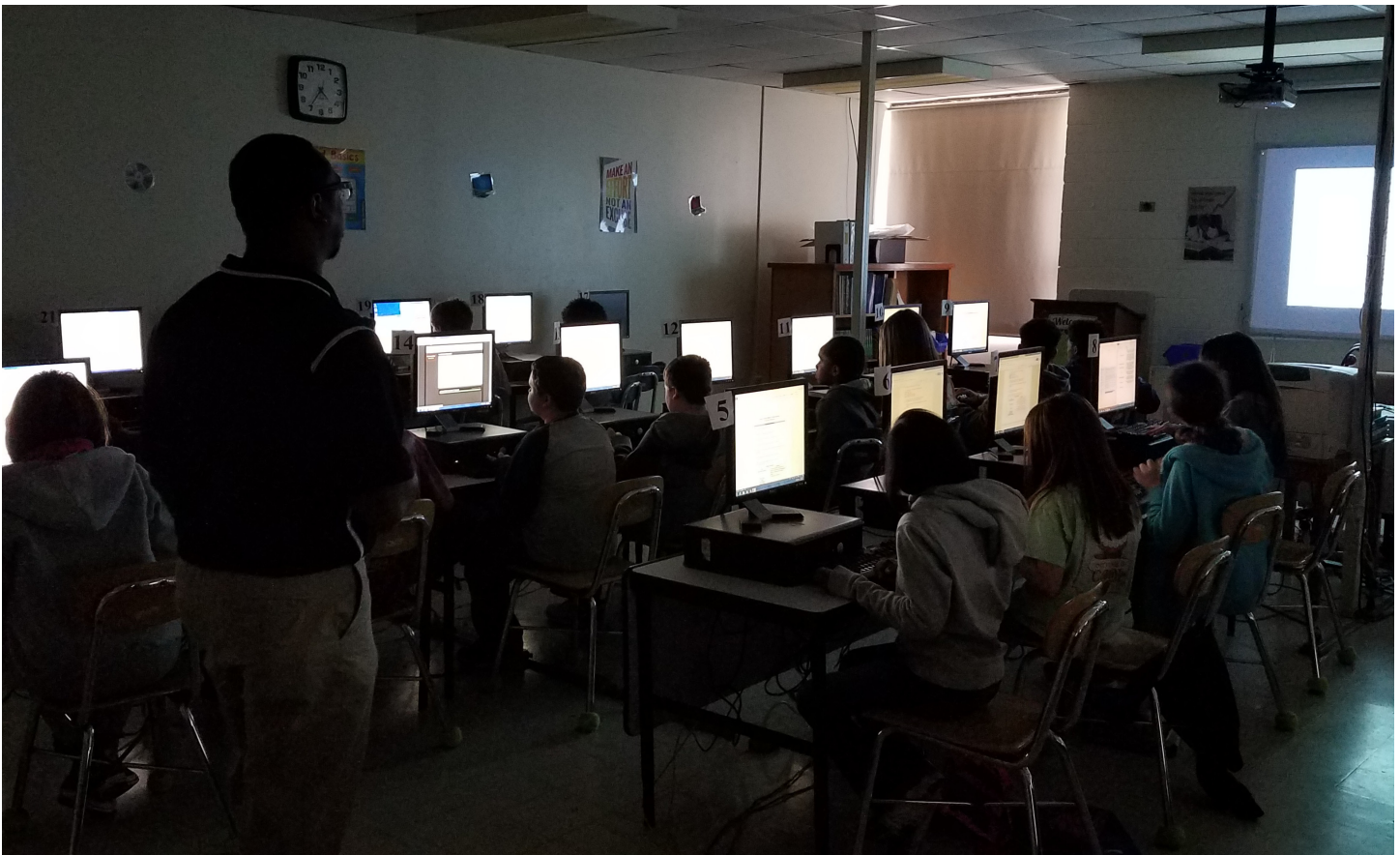
Ms. Shannon Terrell engaged her DMHS Introduction to Design students in an authentic CTE project as well. Ms. Terrell's students were approached by the Western Rockingham Chamber of Commerce tasked with creating the chamber's visitors' guide brochure. We look forward to seeing what her students create. Whether projects consist of flowers sold to the community that were grown by our horticulture students or the life-saving skills developed that benefit our community within our local fire stations, many of the projects and experiences of which our young people engage are literally "real world" experiences.



DMHS Intro to Design Critique

(Updated 4-20-18) We seek to establish project based learning as the center piece for our CTE program. Such an emphasis has implications across a broad spectrum of instructional strategies, where additional staff development is warranted. CTE staff engaged in a study of Tony Wagner's book *Most Likely to Succeed*. The book heralds the necessity of meaningful collaboration and engagement within the context of relevant projects. The staff also viewed the documentary by the same title. We will continue to seek more education/training on project

Strategy: RCS, the City of Reidsville and RCC are planning to create a cohort of rising 9th grade students who identified an interest in health science and who failed to attain proficiency on their EOG test. These students will be invited to participate in a four-day summer program that will introduce them to the opportunities that exist for them in health science. These students will also be grouped together in a Health Team Relations class or Career Management class as 9th grade students. We hope to provide the support for these young people that will be necessary for them to succeed in their academic and technical classes in pursuit of a health science pathway.



Industry Standard Equipment and Software

If we are to engage students in authentic projects, then we must grant them access to industry standard equipment and software. Design software such as Inventor, Revit, and Adobe are essential to design work and constitute the exact software that is used by professionals in industry. Further, the large format printer/cutter and fabric printer that are available at RHS are also the same output devices utilized in industry. CTE funds will continue to be used to support analytical devices for our health science students. Authentic experiences also extend to the development of certain skills that can be best developed in authentic surroundings. An ambulance simulator was donated to our public safety program at RCHS. RCS extends much gratitude to South Eastern Emergency for this generous donation. Appreciation also extends to Ms. Betty Cardwell for pursuing the donation. The Public Safety Academy also looks forward to securing a training facility on the campus of RCHS. The Board of Education approved the purchase of the facility in May of 2017. Such experiences with industry standard equipment and software lead to student attainment of industry recognized credentials as well as award winning performances such as that of DMHS' Vex Robotics team. The team won the Vex Robotics Championship at the state level for the 3rd year in a row. Pictured right are members of the DMHS team. They went on to compete at the International Vex Robotics Championships held in Louisville, Kentucky in April.



DMHS Student participate in Robotics Competition

We are very excited about the prospects of an effort led by the City of Reidsville in conjunction with RCC, Reidsville High School and local business leaders. These stakeholders are currently collaborating on a Golden Leaf Grant that would (if awarded) place a machining lab on the campus of Reidsville High School (RHS). Reidsville High School students might represent the greatest opportunity for success in closing the afore mentioned manufacturing interest gap. One of the major challenges of getting students to enroll in an advanced manufacturing type program at RCC is that most of our students have no idea of what a career in advanced manufacturing might look like. The benefits of placing a machining lab at RHS are threefold. Number one: RHS has by far the fewest number of students who take advantage of CTE classes at RCC both during high school and immediately afterwards. Number two: placing a machining lab on the campus of RHS will help the young people there obtain an understanding of the world of advanced manufacturing along with the great opportunities that such a career path can afford. Finally, they would be vested into such a career path if they are able to take a few machining community college classes while still on the campus of Reidsville High School. The existence of a new state of the art advanced manufacturing lab on the campus of RCC in addition to the foundational machining lab at RHS would all but insure many of our students' interest in continuing his/her education in advanced manufacturing at RCC. We can reignite our students' interest in making things (manufacturing) if they are provided with



RCS & City of Reidsville visit to Machining Lab in Greene County

excellent facilities and the right opportunities. At the same time, we can help our local economy because leaders within our manufacturing sector report that the growth of their respective businesses are only constrained by the lack of a skilled workforce. The continued collaboration between Rockingham County Schools, Rockingham Community College and our business community is absolutely essential to providing our young people with opportunities to thrive here, and is essential for providing businesses with opportunity to locate and expand here- in Rockingham County.



Betty Jean Cardwell and her EMT Students with new Ambulance Simulator

The addition of Adobe classes is relatively new to Rockingham County Schools. The classes are gaining in popularity within Rockingham County. The content of the classes and their appeal to the creative nature of many of our students will prove to be a motivating factor that will drive increased enrollment and performance. We hope to capitalize on the popularity of the Adobe classes; in that these classes might represent a “gateway” to the world of advanced manufacturing for our students. The Adobe classes introduce students to the world of computer aided design which of course is the same skill set that is taught within our drafting classes and utilized within our technology engineering and design classes. It is a skill set that can be useful within the context of a machining program as well. In addition, we hope to utilize our Adobe classes to introduce students to the world of marketing, entrepreneurship, and e-commerce.

Overall, we have room to improve with regard to our student’s performance on our technical post assessments. While our performance was equal to the state average at 78.5%, we fell short of our benchmark goal of 86.3%. We will work to improve assessment performance but will also exercise caution in over-emphasizing “achievement” characterized by the memorization of content knowledge at the expense of real-world experiences that bring content to life and reinforce the kinds of thinking and career skills which our business community desperately seek.

Strategy: Establish a Machining Lab at RHS. The lab will be used to interest students in advanced manufacturing, allow students at RHS to obtain community college credit in machining without having to leave campus, and will grant those RHS (current) juniors who were not selected for participation in a RockATOP Apprenticeship the opportunity to gain excellent experience which will put them in a much better position to be accepted in the 2018-19 RockATOP cohort.

Strategy: Meet student interest by expanding the Adobe and multi-media course offerings within the district. Emphasize through career counseling, pathway design and integrated projects the CAD skills that can be obtained in the Adobe classes but can also be transferable to drafting, machining and TED classes that lead to careers that are in high demand within our community.



The Rockingham Apprenticeship and Technical Opportunities Partnership (RockATOP) was formed in 2013. The primary goal of RockATOP is to create a comprehensive career pathway system that can direct young people toward the excellent opportunities that exist for them in their own backyard. RockATOP is comprised of two workgroups- the *Technical* Opportunities work group and the *Apprenticeship* Opportunities work group.

The Technical Opportunities group is tasked with the development of a sequence of high school and college classes that will lead to a specific career. A core group of individuals remain on the team from year to year, but business partners and RCC staff change pending on the pathway that the group intends to develop during the year. Rock-ATOP developed a pathway for students who might be interested in a career in advanced manufacturing during the 2014-15 school year. In particular a pathway was created that leads to a certificate in welding or machining by the end of a student's senior year in high school and can lead to an associate degree with one to two years of additional course work at Rockingham Community College. Rock-ATOP completed work on a Nursing Pathway in May of 2016. This pathway will prepare students for a two year associates degree from Rockingham Community College in Nursing (RN). The pathway includes CNA certification prior to graduating high school and can possibly lead to a 4 yr. Nursing Degree from Winston-Salem University that can be completed on the campus of RCC. RockATOP turned its attention to the creation of a Computer Aided Design/Graphic Design Pathway



RockATOP Nursing Pathway Meeting



RockATOP Technical Pathway 2017-18 Team

during the 2017-18 School Year. RockATOP picked up on the work conducted by a group of RCC faculty, RCS staff, and the Arts and Graphics Community. These representatives we engaged in the design of Reidsville High School's emerging Creative Design and Arts Academy. RockATOP will continue to refine the pathway and will collaborate with RCC with hopes of creating a CAD degree and/or certificate program at their institution. A video promoting the advanced manufacturing pathways was created in March of 2015 promoting the current pathways. The video can be found at: <https://www.youtube.com/watch?v=7neQALHVOkw>. A video clip promoting the nursing pathway was created during the Spring of 2017 and can be found at rockatop.org/kenscott-video2017.mp4

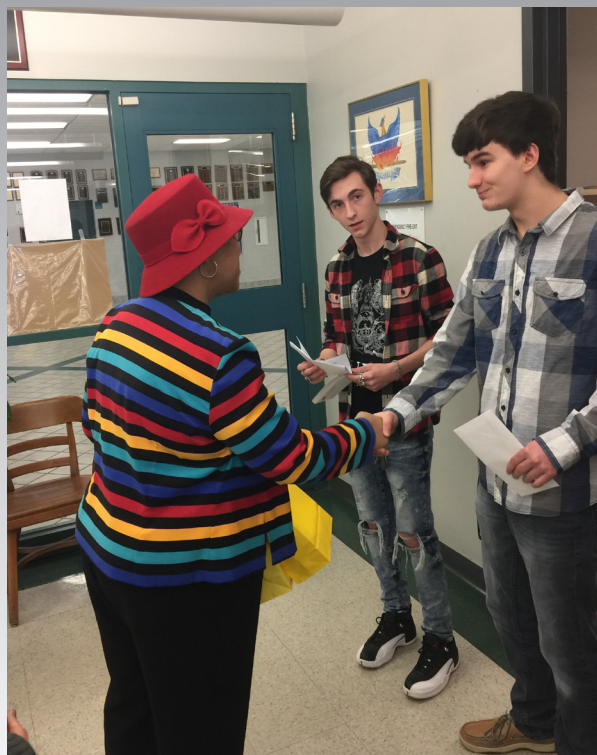
RockATOP Apprenticeship Program

A critical component of any pathway system is work based learning experiences which come in the form of internships and apprenticeships. Although internships abound in our CTE program, apprenticeship opportunities were non-existent until 2017.

An apprenticeship opportunity constitutes a long-term experience that combines class work and (paid) on the job training; while an internship is short-term (usually one semester) and usually unpaid. The 2017 apprenticeship candidates applied for positions in advanced manufacturing with six of our local companies: Machine Specialties, ABCO, Pine Hall Brick, AMCO, Keystone and Smith-Carolina. Extensive planning and collaboration between RCC, RCS, Rockingham County Economic Development and our business community was necessary to make this apprenticeship program a reality. Pictured above are a few of the apprenticeship hopefuls in the machining lab at RCC gaining insight from RockATOP Chair, Ms. Nancy Tulloch- Human Resource Director of Pine Hall Brick and Mr. Robert Simmons President/Owner of Machine Specialties INC. A total 74 students applied; 29 of those



MSI President, Robert Simmons and Pine Hall Brick Human Resources Director Nancy Tulloch-Moore speak with RockATOP Hopefuls during Invitational



Board Member, Ms. Virginia Hoover congratulates RockATOP Pre-Apprentices

students were selected to participate in a four-night invitational. The invitational introduced the candidates to the world of advanced manufacturing and offered teams of our participating business an opportunity to interact with candidates and an opportunity to select those who would go on to be offered a pre-apprenticeship opportunity at their respective companies. More about our RockATOP Apprenticeship Program can be found at: <http://rockatop.org/RockATOPApprenticeship.html>

Rockingham County Schools was very fortunate to receive the Catalyzing CTE Grant during the 2017-18 School Year. The grant funding was utilized to fund a Transitional Career Development Coordinator (TCDC). The position was absolutely critical in the immediate progress that we have made with our apprentices. We are looking at the likelihood that 20 students will be accepted as full apprentices beginning in August of 2018. A signing Ceremony is scheduled for August 14, 2018. We expect to be re-approved for the grant funding again next year and intend to double the number of local businesses that choose to participate in the program and look forward to seeing a substantial increase in the number of apprentices accepted.



CAREER SKILLS

The CTE programs of Rockingham County not only seek to help students understand how the world works from a technical skills standpoint, but also from a soft skills standpoint. Included within the context of soft skills would be work ethic, communication, and coachability. We would also include financial literacy and entrepreneurial spirit within the context of what might be considered soft skills.

We intend to:

- Define work ethic and engage community and promote the value of hard work
- Develop communication
- Develop financial literacy and encourage an entrepreneurial spirit

Work Ethic

The Reset Rockingham Soft Skills Work Group chose “work ethic” as the initial focus of attention. The choice was based on data gathered by Reset Rockingham which indicated “work ethic” as the number one concern of local employers surveyed. While the skill of communication actually produced an overall higher average rating, more employers rated “work ethic” as their number one concern over any other trait.

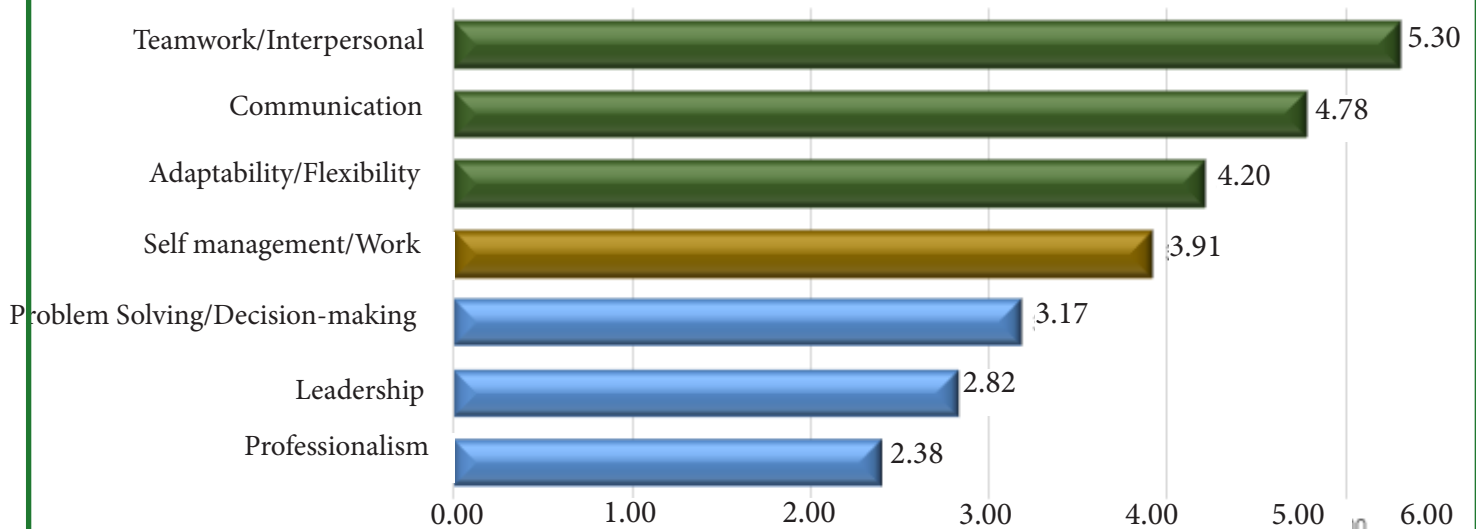
Reset Rockingham plans to send out an open-ended survey to obtain insight from the business community as to what they mean by work ethic. The question will ask them to detail the qualities of someone whom they consider to have a strong work ethic. The survey will be sent to business leaders, community organizations, Community College staff and RCS staff. These individuals will also be asked to submit a question that they would like to pose to either of the afore named stakeholders concerning work ethic. Reset Rockingham is planning to sponsor an event that will feature a panel discussion where representatives from these stakeholder groups will field these questions within the context of an open forum during the fall of 2018.

Strategy: Solicit input from the business community, Rockingham Community College, and Rockingham County Schools staff regarding their meaning of “work ethic.” An open ended survey will be provided to these stakeholders. The responses to the survey will be used to develop questions that will be fielded by a panel of business, education and community leaders in an open forum. The panel discussion is tentatively set for October of 2018.

“Consistency of effort over the long run is everything.”

Angela Duckworth

Reset Rockingham Soft Skills Survey Results



The development of work ethic greatly impacts the achievement in mathematics (which CTE Programs are also required to influence) according to the National Research Council. The council combines the attributes of “relevance” and “work ethic” in what they term to be a “productive disposition.” The Council defines a productive disposition as “the tendency to see sense in mathematics, to perceive that it is both useful and worthwhile, to believe that *steady effort* in learning mathematics pays off, (and) that through *diligent effort* it can be learned and used (NRC, 2001). Further, Robert Marzano concluded from a review of several studies that huge gains in student performance are experienced when students “see a direct link between how hard they try on a particular task and their success at that task.” These gains that range from 21 to 46 percentile points. This is very consistent with what we all intuitively know and provides an educational data source to back up the claims that (Growth Mind-set) and Angela Duckworth (Author of Grit) assert regarding the importance of sustained effort. As a result, it is reasonable to assume that placing an emphasis on “work ethic” within CTE classes will pay dividends within our students academic classes as well.

Communication Skill

Communication was the soft skill that ranked highest (on average). This ranking by our business leaders as well as our duty to impact student achievement in language arts, prompts us to implement strategies that will develop student ability to effectively communicate. Strategies for improving our students’ abilities to communicate are detailed in the Thinking Skills section of this document.

“The fate of a nation rides on the financial literacy and entrepreneurial energy for its kids.”

–Jim Clifton

Financial Literacy & Entrepreneurship

As Jim Clifton (author of *The Coming Jobs War*) asserts in the quote above, it will be absolutely critical for K-12 education to help our students become financially literate. Junior Achievement believes that this education has to start early. Junior Achievement of the Triad is dedicated to inspiring and preparing young people to succeed in a global economy. Specifically, the organization provides K-12 programs which help students: 1) learn about and manage money; 2) explore careers and develop soft skills; 3) start a business.



Central Elementary Students during Junior Achievement Session

Two years ago, Junior Achievement and Rockingham County Schools developed a strategic plan for the implementation of Junior Achievement programs with the goal of deepening the organization’s community impact. The organization is utilizing a successive program delivery approach which allows it to systematically expand grade by grade, year by year and school site by school site. This approach allows students to have Junior Achievement for multiple years in a row bolstering their academic experiences and ensuring they are ready for their futures.

One hundred percent of Junior Achievement’s programs are delivered by community volunteers. This is not by mistake – volunteers are the secret sauce and lifeblood of Junior Achievement. Volunteers come from a variety of industries and walks of life to show our students by example there are many pathways to success; to show our students that the community – people outside of their parents and teachers – are there to support them and help them be successful.

The effort over the past two years was galvanized by Steve Scott, Owner of Tri-State Steel. During that time, Junior Achievement has established programs in all four attendance zones. Rockingham County Schools is fortunate to have great business partners like, Elite Performance Chiropractic, Tri-State Steel, the City of Reidsville, The Eden Police Department, Proliant, Home Trust Bank, Ruger, First National Bank, Gildan, WGSR TV, Woodforest National Bank, Henniges Automotive, and Edward Jones. In short, everyone benefits when we have a generation of young people who understand the value of work and who are financially literate.

As a economic imperative, our young people have to become self directed and motivated life long learners. The incessant march of technology will increasingly render certain technical skills irrelevant. However, this progression of technology is matched by the massive availability of knowledge that is accessible to anyone with an internet connection. As a result, job security will increasingly rely on one’s ability to learn and adapt quickly; it will rely on one’s agency, entrepreneurial spirit and willingness to “work” toward the continuous improvement of his/her knowledge base and skill set.



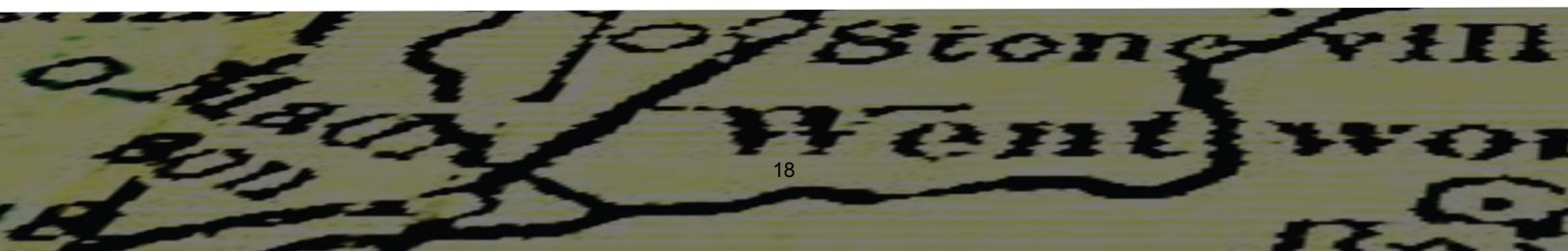
“Public school superintendents and university presidents need to think beyond core curriculum and their graduation rates. Students don’t want to merely graduate; they want an education that results in a good job.”

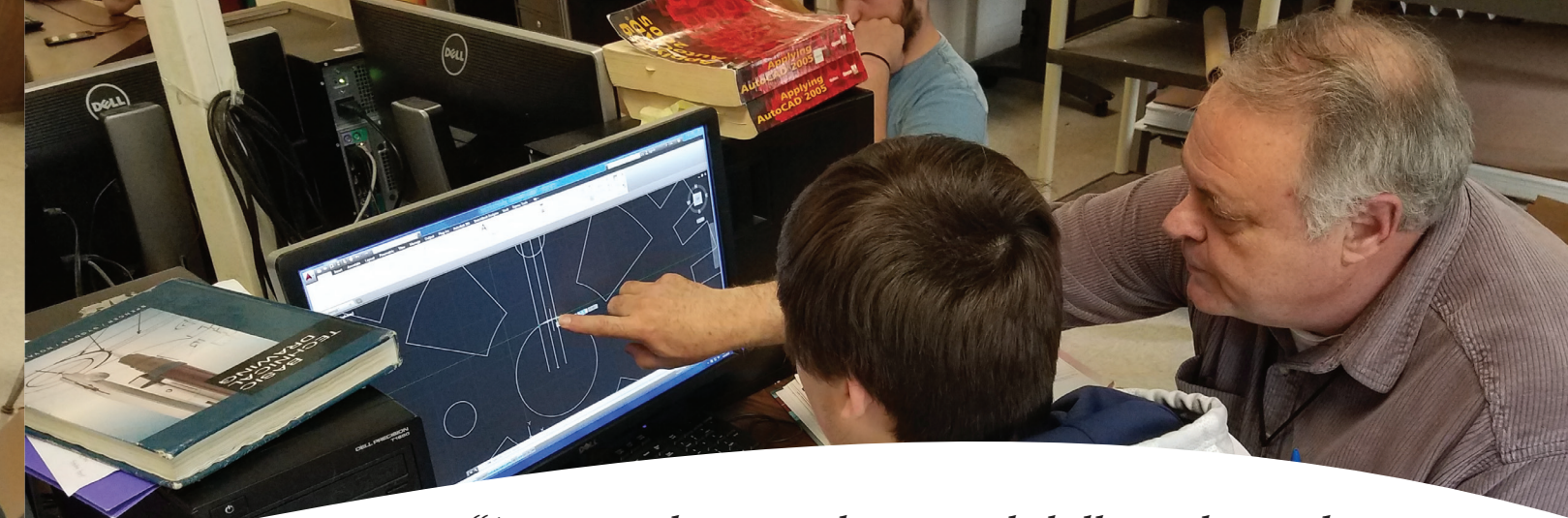
Jim Clifton, (The Coming Jobs



The primary goal of education is to prepare young people for the world that they will soon inherit. In addition to understanding how the world works from a technical standpoint and an interpersonal standpoint, our students must also recognize that the world which they will inherit may be most accurately described as a world of rapid change. As a result, the technical skills that are currently in high demand today may be rendered completely obsolete by the time that our young people enter the work force. CTE, therefore, should play a role in helping students develop the thinking skills that will be necessary for them to continuously learn and to continuously adapt to a changing technological and economic landscape. It is for this reason that we conclude that the attainment of content knowledge and technical skill is necessary but is far from sufficient for success in the 21st Century. In a world where all content knowledge exists at the fingertips of anyone with an internet connection, and where technical skill can be rendered obsolete overnight, the successful 21st Century individual will need to develop skills beyond the memorization of content knowledge. As the National Research Council asserts, “Anyone whose mathematical skills are limited to computation has little to offer today’s society that is not better done by an inexpensive machine.” It has become an inescapable fact that any tasks that are based on the re-telling of information or the completion of a routine task can be automated.

This is not to diminish the necessity of content knowledge. After all, if one is to develop “thinking skills” one must have content to think about. Therefore, our CTE teachers need to utilize their content to help students gain the types of thinking skills that will allow them to overcome technological disruptions within our economy. Such skills include the ability to research pertinent information; analyze, apply and evaluate information, and to use information to solve problems and create. How do you think like a scientist? How do you think like an engineer? How do you think like a nurse?





“Anyone whose mathematical skills are limited to computation has little to offer today’s society that is not better done by an inexpensive machine.”

(National Research Council, 1989)

The Carl D. Perkins Act requires CTE programs to support both reading and math achievement. This section will detail the types of thinking skills our CTE programs seek to develop that will also impact their performance in their math and English classes, as well as, skills that will impact some of our special population students. In order to support the ways of thinking that are required for success in the work force the CTE Programs of Rockingham County Schools intend to:

- Support the initiation of projects that require design thinking along with mastery of several of the math practices that are outlined in the NC Standard Course of Study.
- Utilize project based instruction as a means of developing student communication skill and critical thinking skills through a process of student presentations and critiques.
- Promote our Career Academies.

Design Process and Mathematics

While there are many examples of how CTE can apply basic measuring and computational skills within its content, CTE may be able to most effectively impact the over arching goals of mathematics as described in the math practices outlined in the New Math Standards. CTE teachers will take advantage of the opportunity to develop certain of the math practices listed in the NC Standard Course of Study as they engage their students in the design process. Critical to the design process is the career skill of being self-directed in determining the information required and the ability to locate such information when defining the problem. This skill is similar to the math expectation that students work to “make sense of problems and persevere in solving them.” (Math, NCSS)

CTE

The National Research Council suggests that creative thinking constitutes an integral component of the problem solving process. This sort of creative thinking is also integral to the design process which many of our CTE students are called upon to employ. Once relevant content knowledge is understood and analyzed the design process calls for the student to engage his/her imagination in order to divert from what is given; to alter point of view, conceive of analogies and metaphors, and combine ideas that might result in the production of a workable solution to an unfamiliar problem. This ability to visualize and represent a problem and then to utilize both ones imagination, knowledge of content and reasoning skills to arrive at a viable solution to a new problem is what the National Research Council calls adaptive reasoning. The Council considers this type of thinking as “the glue that holds all of the other strands of mathematics together,” and forms the basis for much of what the NC Math Standards seek to accomplish. This process also represents a good description of the design process that is utilized in many of our CTE classes. The CTE program will increase rigor and relevance of both CTE and core content by the overall emphasis that CTE staff will place on the design process and the *ways of thinking* that are involved in becoming a creative problem solver. CTE will lead Rockingham County Schools in the development of creative problem solvers through the application of a design process whereby virtually all content areas can have a role to play. Examples of creative problem solving will be routinely posted on the CTE website.

Strategy: We intend to administer a interest inventory to the 7th grade students at Reidsville Middle School in May of 2018. Principal, CDC and CTE Director will identify those students who manifest some interest in design and who struggle with mathematics based on 6th grade EOG results. We will schedule those students in a math class where the math teacher will integrate design and mathematics. Many of these students will be tracked into a design oriented CTE pathway at high school. We believe that this meaningful integration of mathematics will positively impact all of our subgroups at our most socioeconomic impacted high school.

Project Based Learning characterized by collaboration, critical thinking as a means of improving communication

CTE teachers will employ instructional strategies that will assist students in the process of transitioning ideas from their heads into the real world. An integral part of this process is to help students establish the communication skill necessary to effectively defend their solutions to problems as well as the skill necessary to thoughtfully critique the work of classmates. Such an emphasis should also improve student performance on language arts assessments as the ability to defend and to articulate a particular position remains a consistent theme in the NC ELA State Standards. CTE Teachers will be expected to provide students with opportunities to present their projects to their peers.

An emphasis on the career skill of collaboration can impact the reading achievement of Exceptional Children (EC) in particular. All CTE teachers will be expected to plan and execute project-based lessons that require meaningful collaboration among students with varying strengths and capabilities. Teachers will be expected to invite CDCs, IMC and/or CTE Director to project presentations/critiques. Teachers will also be expected to submit evidence of collaborative project based instruction for posting on our CTE website. Exceptional Children staff will present best practices for differentiation and inclusive collaboration in August of 2018. This effort will support the ELA standard that expects students to “participate effectively in a range of conversation and collaborations with diverse partners building on others’ ideas and expressing their own clearly and persuasively. (ELA NCSS). This strategy will assist our exceptional students, Limited English Procient (LEP) and academically disadvantaged students by providing them with a diversity of ways in which they can contribute to the overall success of the collaborative project.



DMHS Robotics Students

We are in the midst of an example of why these types of skills are important to a student's career pathway? Our country has just recovered from what has been termed the Great Recession. The National Bureau of Economic Research conducted a study in 2012 that demonstrates how the last three recessions in particular were jobless. They indicate that mid-skill occupations are the most vulnerable in that as much of 88% of the jobs lost during such recessions do not return. A phenomenon exists where during a recession businesses learn to streamline processes and leverage new technologies in order to remain viable. As a result when GDP resumes to pre-recession levels it does not coincide with an increase in these types of jobs.

Martin Ford, *Author of Rise of the Robots*, picks up on this concern and describes advancing technology as a potent force that has very consistently eliminated jobs in the manufacturing sector. Ford explains that “even as the number of manufacturing jobs has been steadily declining as a percentage of total employment, the inflation adjusted value of the goods manufactured in the United States has dramatically increased over time. We are making more stuff, but doing it with fewer and fewer workers (Ford, 2015). Further, data from the NC Department of Commerce suggests that recession recoveries are not equal across the state. Job creation in rural counties such as Rockingham County does not bounce back from a recession nearly as quickly as it does in metropolitan areas. This underscores the importance of helping our students to develop the types of career skills and thinking skills which will allow them to secure more sustainable jobs and to be able to quickly update their skill

Strategy: CTE staff will utilize strategies contained within “Teaching English Language Learners in Career and Technical Education” to improve the academic and technical attainment of our Hispanic Population. A copy of the text was purchased for each school in 2017. The text underscores the importance of actively engaging English Language Learners in activities where ELL students are “required to practice speaking” We believe that such practice can be best employed within the context of collaborative projects with their peers. CDCs will disseminate such information from the text to CTE teachers within the context of school-based professional learning communities and will report progress to CTE Director and IMC at monthly CDC meetings.



Career Academies

Up until this point we have outlined how CTE provides the tools, content and instruction that are relevant to today's job market and relevant to our students' talents and desire to make a meaningful contribution to their community. There exists another essential component to producing the type of young person that is ready to meet the challenges of the 21st Century. That essential component is the establishment of meaningful relationships. We are convinced that rigor follows relevant instruction and meaningful relationships. There are several ways in which CTE fosters strong relationships with our local community and numerous examples of how we invite our students to develop meaningful relationships among themselves, the school community and beyond. These opportunities include student led organizations, internships, and collaborative projects.

“Rigor follows relevant instruction and meaningful relationships.”

Ken Scott

Our Career Academies may represent the most compelling example of how “rigor follows relevant content and meaningful relationships.” Each year our 8th grade students have an opportunity to apply to one of six high school academies. Four of the six academies are career oriented. The creation and expansion of high school academies represent a major initiative in our effort to “ensure core integration, rigorous academic standards and strong industry experience.” Rockingham County Schools will offer a Public Safety Academy, a Health Science Academy, a Creative Design & Arts Academy and a STEM Academy. We are utilizing a “school within a school” model, where academy students are grouped together for applicable CTE classes and certain applicable non-CTE classes. While the first two years of each academy include the same sequence of courses for all academy students, students gain the ability to individualize their remaining course sequence as they move into their junior and senior years. Each graduate from these academies will be a CTE completer. Each student will benefit from the collaboration of CTE teachers and core teachers as students gain insight into the relevance of core content as they apply such content knowledge in their CTE classes. Further all students within each academy will gain strong industry experience as a result of required internship-type opportunities. The strength of each academy is that the participating young people not only engage in content that is relevant to their career aspirations but they are also grouped together with students who have similar interests and come under the supervision of instructors with the same interest. Such relationships extend beyond the walls of the school as students engage the local community in the production of authentic projects, internships, volunteerism, student led organizations and apprenticeships.



DMHS VEX Robotics State 2018 Champions



The Creative Design and Arts Academy at Reidsville High School seeks to prepare students for a wide array of design oriented fields. The Academy will prepare students with the foundational visual design skills, design thinking,, and computer aided design skills that will prepare them for careers in graphic design, apparel design, interior design, animation and game art design. The over arching goal of the academy is to develop creative problem solvers and entrepreneurs. All graduates of the academy will obtain industry recognized credentials in Adobe and will complete a CTE pathway.



The Public Safety Academy at Rockingham County High School seeks to meet the need of our community for qualified individuals to

serve as firefighters, emergency medical technicians, and law enforcement officers. All academy students will learn critical life saving skills as they work to obtain certifications in first aid, EMT and fire fighting. By the time that our public safety students graduate high school, they will have completed a CTE pathway and (with only a few more weeks of training) will be eligible for hire as a firefighter and/or EMT.



The Phoenix STEM Academy at McMichael High School seeks to develop strong content knowledge in math and science along with the design thinking and technical skill that will prepare students for an array of STEM related fields. The STEM Academy

seeks to create “engineers who think like artists and artists who think like engineers.” In doing so, the Academy will produce the most in demand 21st Century Skill- creative problem solving. Students who graduate from the STEM academy will have completed a CTE pathway.



MHS Health Science Academy Seniors at Pinning Ceremony



The Health Science Academy at Morehead High School seeks to meet the needs of a quickly expanding and evolving health care sector of our local economy, while providing young people with the knowledge and skills necessary to flourish within the high-wage health care careers that are in such demand. By the time that our health science students graduate high school, they will have completed a CTE pathway, engaged in an internship, and will have obtained credentials such as first aid, certified nurses’ assistant and/or Pharmacy Technician.



PARTNERS

None of the afore mentioned strategies happen within a vacuum. Student attainment of technical skills, soft skills, and 21st Century thinking skills are dependent upon the existence of valuable partners. This section will describe several valued partners that support and energize our CTE Program.

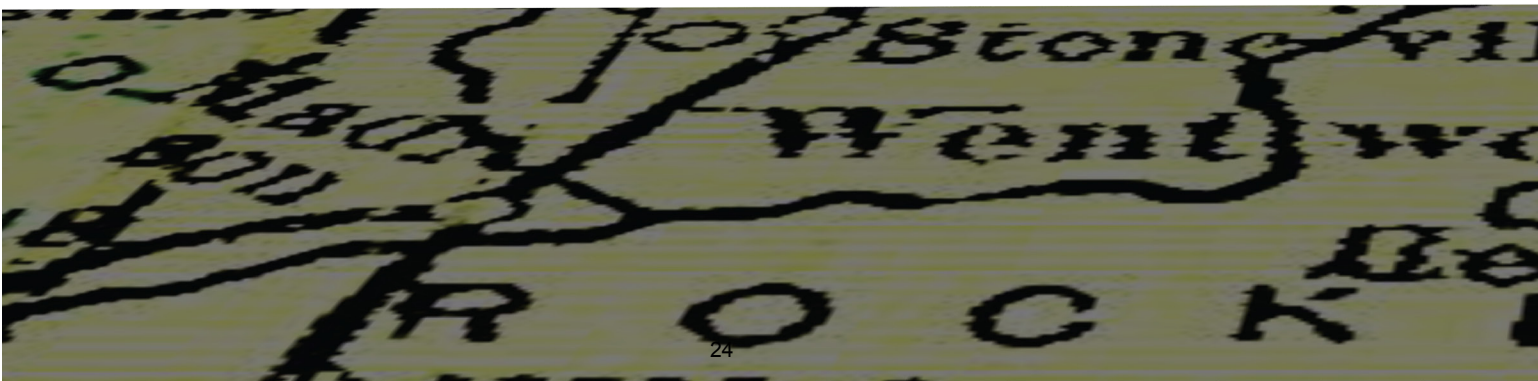
How will CTE of Rockingham County engage the community in support of our goals?

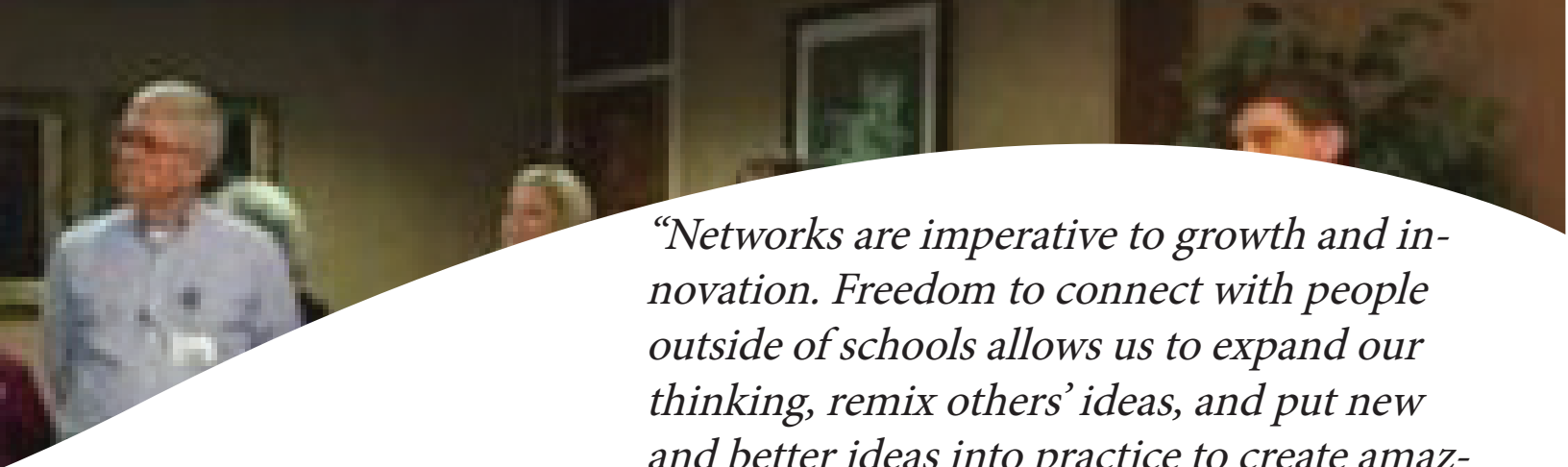
- Bring Rockingham Community College (RCC) classes to our school campuses
- Extend our professional learning communities beyond the walls of the school
- Collaborate with local chambers of commerce and economic development organizations to provide meaningful work-based experiences for our students
- Collaborate with Reset Rockingham in its mission to make the work force in Rockingham County the envy of the state

Bring Rockingham Community College Classes to Rockingham County High Schools

We have great opportunity for economic development within Rockingham County. This development hinges in large measure on the relationship that exists between Rockingham County Schools (RCS) and Rockingham Community College (RCC). The latest data from the North Carolina Department of Commerce indicates that 81% of individuals within Rockingham County (25 years and older) have at least a high school diploma; and 13% of them hold at least a bachelor's degree. The future of our county depends on what happens to the 68% in the middle. The prosperity of our community depends on our young people's knowledge of the opportunities that are available to them and depends on whether or not they are prepared to take advantage of such opportunities. In decades past, our young people would have had opportunities to earn a family sustaining wage with no more than a high school diploma. Those days have all but vanished. The advanced technology that exists within our industries today requires training beyond high school, but training that is often less than what one might receive at a four year college.

One factor that has greatly enhanced this relationship is the Catalyzing CTE grant that RCS and RCC received during the 2017-18 school year. RCC and RCS were one of only 24 school districts across the state who





“Networks are imperative to growth and innovation. Freedom to connect with people outside of schools allows us to expand our thinking, remix others’ ideas, and put new and better ideas into practice to create amazing learning experiences for our students.”

George Couros

partnered with their local community college to be awarded a “Catalyzing CTE” grant. The funds from the grant were utilized to increase the number of students who take advantage of the opportunities at RCC while in high school and immediately upon graduation. We hired a career coordinator with the grant funding. We termed the new position Transitional Career Coordinator (TCDC), because the individual is tasked with helping students transition from middle school to high school and from high school to RCC. The transition from middle school to high school entails meeting with all 8th grade students and helping them determine their career interests and helping them to develop a plan in high school that details the classes that will help them turn that interest into a rewarding career. The TCDC works in conjunction with RCC to provide experiences for students that will help them to understand the opportunities that exist for them at RCC. Such collaboration has resulted in bringing RCC staff to our high schools campuses as well as bringing our students to the campus of RCC. Pictured below is RCC Machining instructor Ms. Cynthia Johnson speaking with some Reidsville High Students in their media center. Ms. Craddock arranged for several RCC programs to visit RCS high schools during the students’ lunch breaks. Students had the opportunity to learn more about the CTE programs available at RCC and had the opportunity to begin the application process during this time. However the most profound collaboration in which Ms. Craddock has led has been the planning that has transpired between RCS, RCC and our business community in setting up our RockATOP Apprenticeship Program. Details of the Catalyzing CTE grant can be found at: <http://www.rockcte.org/CTE%20CAT%20>



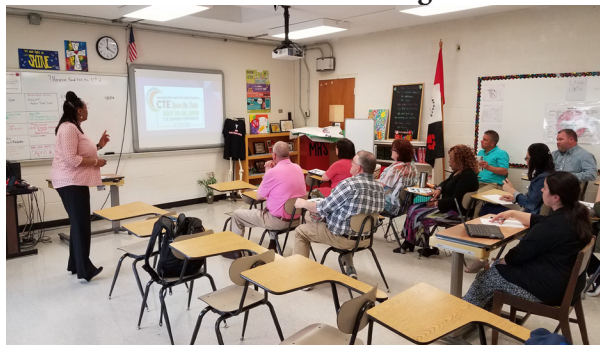
RCC Machining Presentation at RHS



CTE

The leadership of Reset Rockingham, hopes to bring RCC classes to our high school campuses- removing the transportation barrier that exists for many of our students. This strategy will introduce our students to RCC and will hopefully encourage them to continue at RCC after graduation from high school. Among the RCC classes that we hope to offer on our campuses are: Chemistry and/or Anatomy and Physiology; Computer Service & Repair or DC/AC Electricity; Blue Print Reading, Industrial Safety Manual Lathe Machining and Manual Milling Machining classes. We are also encouraged an increase in the willingness of our state's four-year Universities in the acceptance of technical credits from our community colleges.

Extend our Professional Learning Communities beyond the walls of the school



IMC, Beth Smith During CTE Planning Meeting at MHS


One of the points of emphasis for the entire CTE program will be the establishment of meaningful professional communities. As pictured left, RCS CTE teachers meet as a group at least twice per year to plan and discuss progress toward meeting our goals. While all staff in RCS are expected to meet regularly in professional learning communities, CTE teachers are expected to extend their learning community beyond the walls of their classrooms. Similar to the NATEF requirement for our Automotive Program, we expect all CTE teachers to identify teachers outside of their schools as well as business professionals from their community that can provide support, direction and instructional recommendations that will improve student achievement and the overall impact of their respective program area. Each learning community will be listed in a Google spreadsheet for review by the IMC and CTE Director. Such collaboration will provide our CTE staff members with ongoing information regarding the local employment climate; the skills necessary for success; information on emerging careers, and feedback on the career readiness of recent graduates. Such strong linkages with our business communities will be essential to the overall support and marketing of our program areas. Further, our business community can serve as a source for the initiation and planning of authentic projects and increased work based experiences.

Exposure to local industry

Our business community has engaged RCS in an effort to expose staff and students to the business and industries that lie within our borders. The Reidsville Chamber of Commerce invites more than 200 upper classmen from three schools to participate in their "Business Showcase." This event is an opportunity for our young people to network with representatives from many of the businesses in the Reidsville area. Students gain an idea of the opportunities that are available to them and are able at that time to consult with RCC representatives to gain an understanding of the education and training that would be necessary in order to be eligible for hire in the businesses represented.

RCS CTE is currently collaborating with RCC, our RockATOP Partners and Rockingham County Economic Development to provide 25 RCS teachers the opportunity to become familiar with the businesses that will be accepting our RockATOP Apprentices. These staff members will spend the morning of June 11th at RCC, where they will engage in hands-on projects that will allow them to become familiar with the type of machining work that many of our apprentices will be trained. During the afternoon the participants are scheduled to tour two of our RockATOP Partners' places of business. They are scheduled to tour Pine Hall Brick and Smith Carolina.

We are pleased with the engagement and support of our local business community. We also enjoy support from the region and state. Guilford Apprenticeship Partners, Apprenticeship Randolph, the Career Accelerator Program in Alamance-Burlington were instrumental in helping RockATOP get off the ground. Together the four partnerships support each other with best practices and ongoing communication. The groups recently became involved in Eastern Triad Work Force Initiative where we have joined forces with Piedmont Triad NC Commerce to work on a 3.2 million dollar grant that would go to support the efforts of each partnership. And the state has been a critical component of our efforts in the awarding of the \$75,000 Catalyzing CTE grant that Rockingham County received to support its efforts.

A photograph of three male students in a workshop or classroom setting. They are focused on a project on a workbench. The student in the foreground is wearing a grey hoodie and a black watch, and is using a tool on a small object. The student in the middle is wearing a brown shirt and has a cross necklace. The student in the background is wearing an orange shirt. The workbench is cluttered with various tools and materials, including a red vise, a green chair, and a red chair. The background shows a window and a white wall.

“Young people who have discovered their passion are far more likely to have the will and discipline to learn and do the difficult things that school and work often require.”

Tony Wagner, 2008



Rockingham

INSPIRED WORKFORCE SOLUTIONS



Reset Rockingham has taken on the role of CTE Business Advisory Council. Reset Rockingham's Steering Committee already meets quarterly; with monthly management team meetings. Each management team member leads one of five workgroups. They are: Soft Skills Work Group; Basic Skills Work Group; RockATOP Technical Skills Work Group; RockATOP Apprenticeship Work Group; and a Communications/Promotion Work Group. We are fortunate to have the support of Rural Forward who assists Reset with the facilitation of its meetings. Reset Rockingham was established to "reset" the culture of our county by leveraging the coordinated efforts of all stakeholders behind workforce development and economic prosperity. Entities that are involved with the Reset effort include; Economic Development, Business Leaders, NC Works, Head Start, Rockingham County Schools, Ministerial Alliance, Rockingham Community College, and the Rockingham County Education Foundation. Reset Rockingham's mission is "to create a work force that is the envy of the state."



Reset Rockingham Steering Committee Meeting



Reset Rockingham Steering Committee Meeting

Reset Steering Committee

Mark Kinlaw	President, RCC
Rodney Shotwell	Superintendent, RCS
Jan Critz	Economic Development,
Wendy Walker-Fox	Workforce Dev Director
Caroline Brigmon	NC Dept. of Commerce
Nancy Tolluch-Moore	Pine Hall Brick
Roy Gibson	Unify
Cecil Kemp	Principal, RCS

Laura Coffee	Dean of Work Force Dev.
Dawn Charaba	Education Foundation
Johnny Price	NC Works
Sharon Galloway	RCC Work Force Dev.
Jessica Burroughs	Rural Forward
Ken Scott	CTE Director, RCS

Technical Skills Work Group (RockATop)

Ken Scott	CTE Director, RCS
Beth Smith	IMC, RCS
Jennifer Lester	CTE Director, RCC
Lydia Craddock	TCDC, RCS
Chandra Caple	Director, RCC
Jim Carroll	CDC RCHS
Mo Bell	AG Teacher, DMHS
Lynn Knight	AG Teacher, RCHS
Anthony Edwards	Electronics Chair RCC
John Ayers	AG Teacher RCC
TBD	Business Representative
TBD	AG Teacher A&T University

Work Based Experience Work Group

Laura Coffee	Dean Workforce Development
John DeLine,	Beta Fuel
Nancy Tolluch-Moore	Pine Hall Brick
Tammy Simmons	MSI
So Pang	MSI
Cindy Smith	AMCOR
Ernie Collett	ABCO
Satrina Daniel	Keystone
Joyce Smith	Smith-Carolina
Stanley Bowman	Pine Hall Brick
Ken Allen	Economic Development
Beth Smith	IMC, RCS
Lydia Craddock-	TCDC
Jennifer Lester	CTE Director, RCC
Tony McKnight	NC Commerce
Ken Scott	CTE Director, RCS

Soft Skills Work Group

Brannon Russell	Ruger
Mike Dougherty	Eden Economic Development
Steve Scott,	Tri-State Steel
Holly Williamson	EC Administrator, RCS
Amy Smith,	Counselor, RCS
Portia Parris,	Reidsville YMCA
Ken Scott,	CTE Director, RCS
Sharon Galloway	HRD Coordinator, RCC

Workforce Placement Work Group

Ken Allen	Economic Development
Johnny Pass	NC Works
Chris Rivera	NC Works
Jennifer Nixon	Reidsville Area Foundation
Dylan Galloway	NC Works
Jennifer Lester	CTE Director, RCC

Communications Work Group

Dawn Charaba	Ed. Foundation
Karen Hyler	PIO, RCS
Cindy Corcoran	Assistant Superintendent
Heather Adams	Partnership for Children
Stokes Ann Hunt	Annie Penn Hospital
Jamie Rorrer	Economic Development
Jeff Garstka	Economic Development
Jen Nixon	Reidsville Area Foundation
Katrina White	Health & Human Services
Rodney Shotwell	Superintendent, RCS



Rockingham

INSPIRED WORKFORCE SOLUTIONS



Conclusion

While the unemployment rate in Rockingham County stands at a (seemingly) healthy rate of 5.3%. This rate does not take into account the underemployed nor does it take into account the people who are no longer attempting to find a job. National Data indicates that nearly one third of high school graduates are not looking for work and therefore are not counted in the unemployment rate. It is tempting to consider the possibility that this stat is heavily influenced by the number of students who attend college in lieu of work. However, when the age range was restricted to those young people who would be of the age where they would be transitioning from college to work (ages 20-24), the percent of those in the workforce rises only slightly above 70%. When we take a look at the data for Rockingham County, we notice that 13% of our population (25 years old or older) have at least a bachelor's degree, while 19% have less than a high school degree. The implications of this data are immense. The future economic prosperity of our county lies in what happens with the middle 68% (those individuals who have at least a high school diploma but less than a bachelor's degree.) Our CTE programs in Rockingham County must seize this opportunity to engage our young people in the world of work as soon as possible. Our local business leaders are looking for skilled employees, but if the data from the Bureau of Labor Statistics is correct our young people ages 16-24 are not looking for them. They either do not recognize these careers as a good opportunity or are not presently in a position to take advantage of them. Our local business leaders, community college and Rockingham County CTE staff are determined to change this metric. We intend to refocus our attention as educators- from "graduating **from** high school" to a concerted effort to make sure that are young people are graduating **to** (our community college, an apprenticeship, further training or sustainable work) and that they are graduating **with** the technical skills, credentials, soft skills that will allow for their full participation in our economy.

The future of Rockingham County is bright. The CTE programs at Rockingham County Schools and Rockingham Community College along with the existence of a business community that is becoming increasingly involved in the preparation of our young people for the workforce contribute to a hopeful future for our county. Together we seek to help students discover their talents, help them understand what the world needs and how they can develop their talents in a way that will meet particular needs within our community.

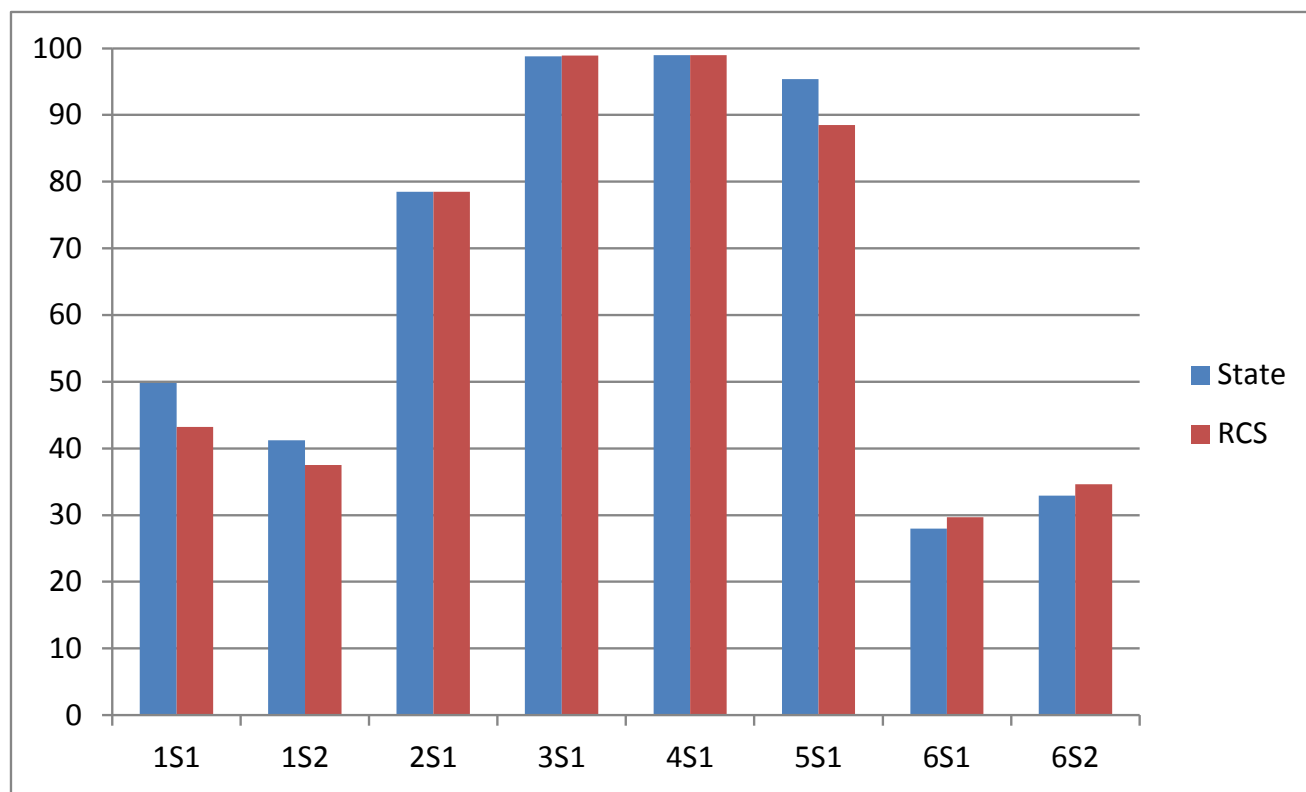
CTE Super Teacher Tips

1. Be clear about what students are to learn; explain why it is important to know (Marzano, Sinek).
2. Be a connector; connect students with future classes, experiences and influential people (NACTE).
3. Engage students in authentic projects (Meeder).
4. Utilize non-linguistic representations of content (Marzano, ELL).
5. Provide timely feedback on student progress (Marzano).
6. Build on student strengths, interests and prior knowledge (Marzano).
7. Expand your learning community beyond the walls of your school (Wagner).
8. Provide opportunities for students to work in teams (Wagner).
9. Provide abundant opportunities for students to practice communicating (Wagner).
10. Expect sustained and purposeful effort (NRC, Marzano).



MHS RockATOP Pre-Apprentice with MHS CDC, Christy Hensley

RCS CTE Performance Indicators



(1S1) – Academic Attainment – Reading/Language Arts. Concentrators who left secondary education in the reporting year will have met the proficient or advanced level on the statewide high school reading/language arts assessment.

(1S2) – Academic Attainment - Mathematics. Concentrators who left secondary education in the reporting year will have met the proficient or advanced level on the statewide high school mathematics.

(2S1) – Technical Skill Attainment. P CTE participants who met the proficiency on CTE post assessments or received selected industry recognized credentials or counted as proficient using the postsecondary technical attainment measure in the reporting year.

(3S1) – Secondary School Completion. CTE Concentrators leaving secondary education in the reporting year will have earned a diploma.

(4S1) – Student Graduation Rates. CTE Concentrators who will count as graduated in the state's computation of its cohort graduation rate for NCLB.

(5S1) – Secondary Placement. Concentrators who left secondary education in the previous school year will be in postsecondary education or advanced training, in military service, or in employment.

(6S1) - Nontraditional Participation. Percent of participants in a course that leads to nontraditional employment are of the nontraditional gender.

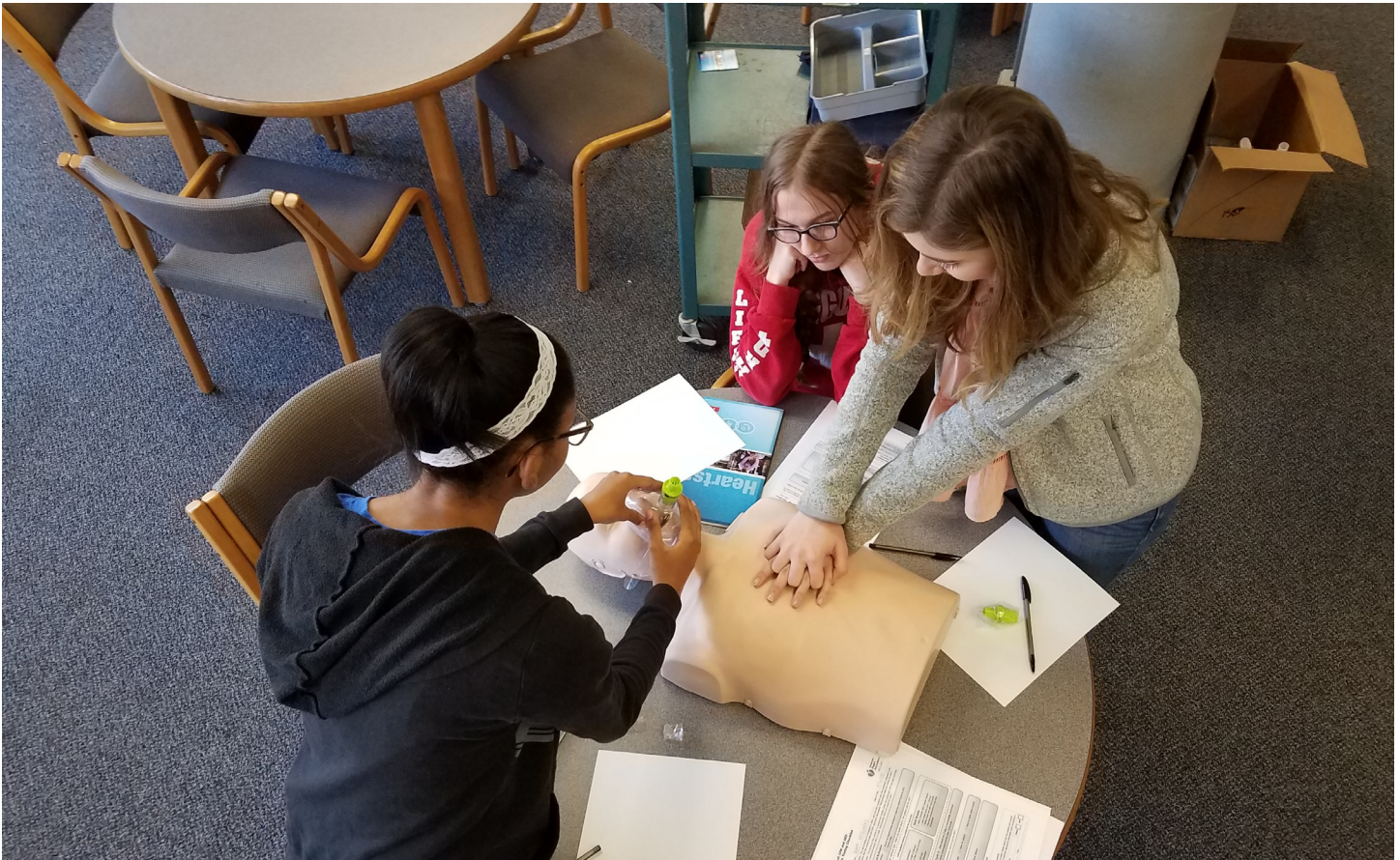
(6S2) - Nontraditional Completion. Percent of the students who completed a program that leads to employment in nontraditional fields are of the nontraditional gender.

2018-19 CTE Course Offerings

Course	DMHS	MHS	RCHS	RHS
Adobe Video Design				
Adobe Visual Design				
Agriculture Mechanics I				
Agriculture Mechanics II				
Agri-science Applications				
Animal Science I				
Animal Science II				
Apparel and Textile Production I				
Apparel and Textile Production II				
Automotive Service I				
Automotive Service II				
Biomedical Technology I				
Biomedical Technology II				
Blue Print Reading (RCC)				
Career Management				
CTE Advanced Study				
CTE Internship				
Drafting I				
Drafting II (Architectural)				
Drafting II (Engineering)				
Drafting III (Architectural)				
Drafting III (Engineering)				
Ecommerce I				
Ecommerce II				
Emergency Medical Technician I				
Emergency Medical Technician II				
Engineering Design				
Fashion Merchandising				
Fire Fighter Technology I				
Fire Fighter Technology II				
Fire Fighter Technology III				
Foods I				
Foods II Enterprise				
Health Science I				
Health Science II				
Health Team Relations				
Horticulture I				
Horticulture II				
Horticulture II Landscaping				
Hospitality and Tourism				
IB Business Management				
Industrial Safety (RCC)				
Interior Design I				
Interior Design II				
Introduction to Automotive Service				

2018-19 CTE Course Offerings

Manual Machining -Lathe (RCC)				
Manual Machining -Mill (RCC)				
Marketing Applications				
Marketing I				
Microsoft ITA Access				
Microsoft ITA Excel				
Microsoft ITA Word and Power Point				
Multi Media and Web Page Design				
Nursing Fundamentals				
Parenting and Child Development				
Personal Finance				
Pharmacy Technology (Online)				
Principals of Family and Human Services				
Principles of Business and Finance				
Public Safety				
Robotics I				
Robotics II				
RockATOP Apprenticeship				
Sports and Entertainment Marketing I				
Sports and Entertainment Marketing II				
Strategic Marketing				
Technology Design				
Technology Engineering and Design				



Super CTE Staff

McMichael High School

Mo Bell	Agriculture
Donna Holder	Health Science
Michelle Byers	Marketing
Chris Higgs	Business
Shannon Terrell	Adobe Academy
Rhonda Holland	CDC
Jennifer Flynt	Family & Consumer Science
Margaret Jones	Health Science
Melia Cardwell	Family & Consumer Science
Wendy Freeman	Business
Matt Hill	T&I Drafting
John Butler	Technology

Reidsville High School

Vivian Moore	Allied Health Science
Martha King	Business
Karen Knable	Business
Greg Corbett	Adobe
Yolanda Stubblefield	CDC
Collette Broadnax	Family & Consumer Science
Nina Walls	Business/Adobe
Betty Green	Family & Consumer Science
Rosalina Webster	Public Safety
Larry Goodes	Marketing/Business
Linda Woody	Health Science

Western Rockingham Middle School

Todd Jones	Business
Sarah Stewart	Life Skills
Carolyn Bayliss	Technology/Business

Administrative Staff

Beth Smith	IMC
Lydia Craddock	TCDC
Lori Hancock	Administrative Assistant
Ginger Smothers	Technology Assistant

Morehead High School

Allyson Edwards	Health Science
Jean Manuel	Health Science
Diane Thomas	Business
Marsha Roark	Business
Sheila Thompson	Business
Erika Bozeman	Business
Christy Hensley	CDC (5870)
Christy Boyles	Family & Consumer Science
Christine Wenger	Family & Consumer Science
Tina Frazier	Health Science
Blair Pruitt	Automotive Technology
Betty Cardwell	EMT
Max Dooley	Technology

Rockingham County High School

Sharon Jones	Agriculture
Lynn Knight	Agriculture
Teresa Harris	Allied Health Science
Nedine Rowe	Allied Health Science
Frieda Strickland	Family & Consumer Science
Rick Baciуска	Marketing
Tim Buck	Marketing
Jim Carroll	CDC (5870)
Gwen Lance	Family & Consumer Science
Betty Cardwell	EMT
Josh Evans	Fire Fighting Academy
Robert Craddock	Drafting
Derrick Shelton	Automotive

Holmes Middle School

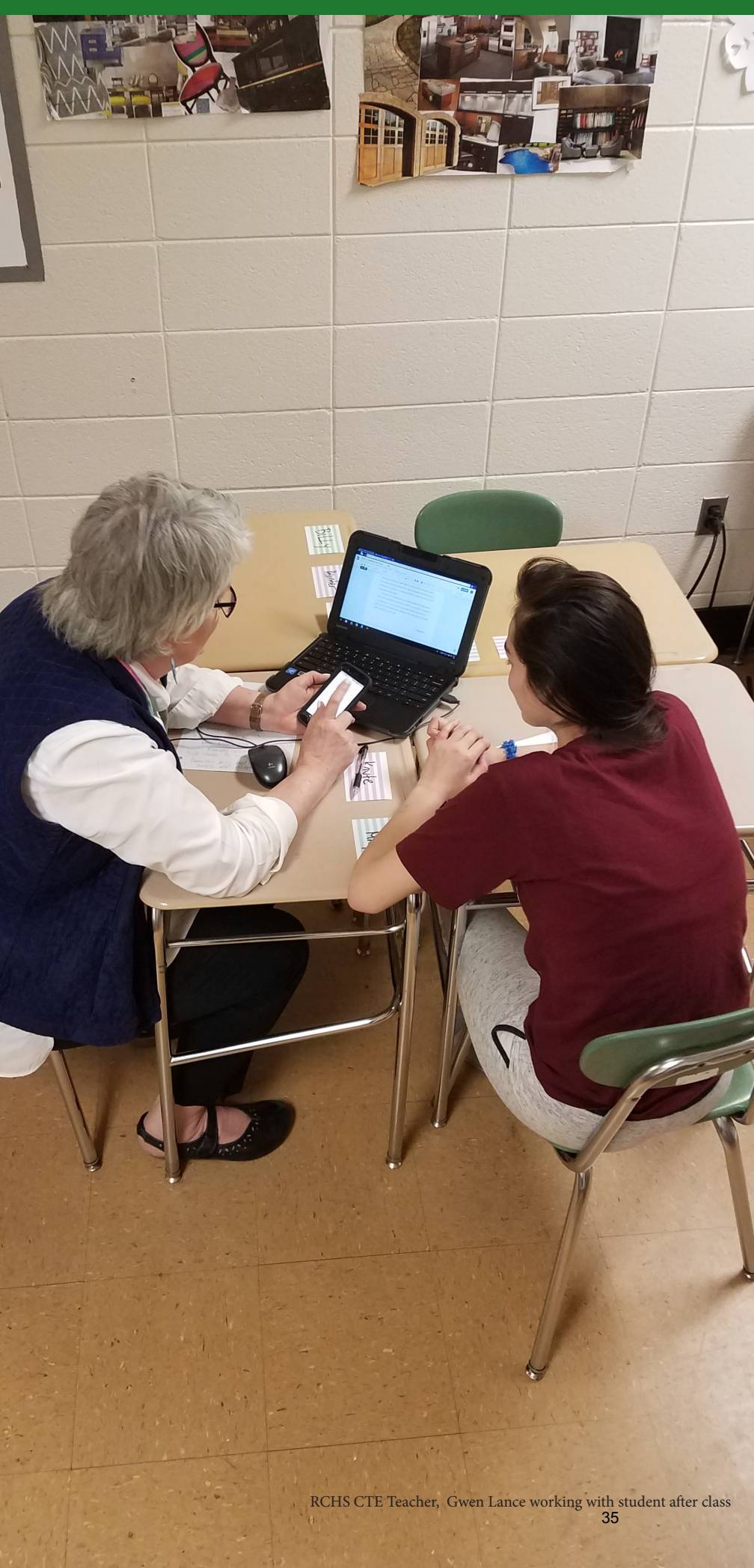
Marsha Roark	Business
Timothy Carter	Business
John Brown	Technology

Rockingham County High School

Jerry Robertson	Business
Jackie Whicker	Life Skills
Bryan Powell	Business

Reidsville High School

Chuck Jones	Business
Jean Stone	Business



“When we show a genuine interest in those whom we serve and go out of our way to help them become successful in areas about which they are passionate, they are more likely to go above and beyond what is expected.”

George Couros, 2015



Ms. Teresa Harris and her health science students at Reidsville Chamber Showcase



Academy Presentation at Holmes Middle School



Eastern Triad WorkForce Initiative Planning Meeting



RockATOP Open House Meeting at AMCOR



Lydia Craddock and Tammy Simmons, VP of MSI discuss Apprenticeships at Regional Work Force Summit

Our Partners



Above, RockATOP Partners, Ms. Satrina Daniel, Keystone Foods; Ms. Tammy Simmons, MSI; Ms. Nancy Tulloch-Moore, Pine Hall Brick; and Ms. Joyce Smith, Smith Carolina are flanked by Dr. Ken Scott, CTE Director (far left); and (left to right) Mr. Lance Metzler, County Manager; Dr. Mark Kinlaw, RCC President; and Colonel Mark Richardson, County Commissioner.