Dr. Barry Williams
Superintendent

Jennifer K. Hill
Director of Human Resources

Vacancy Announcement
Please Post

Gates County Public Schools

P.O. BOX 125
GATESVILLE, NC 27938
PHONE: (252) 357-1113
FAX: (252) 357-4329

Position:	CTE Technology Teacher Central Middle School
Reports to:	Principal
Qualifications:	Technology Education 820 See Attachment

APPLICATION PROCESS FOR LICENSED TEACHING/ADMINISTRATIVE POSITIONS:

To apply for a licensed teaching/administrative position (certified) with Gates County Schools, please complete an online application by **logging on to the website shown below.** If one is unable to complete the online application, call or email our office for a hardcopy of the Gates County Schools application.

A **complete** application includes:

- ✓ **Two signed letters of reference**
- ✓ **A copy of all transcripts, (official transcripts required upon hire) and**
- ✓ **A copy of your license**

After completing the online application, select **GATES COUNTY SCHOOLS**. You may notify the Human Resources Assistant by email to alert us that you have selected our district to review your application. Please send your email to knightbj@gatescountyschools.net.

ONLINE APPLICATION FOR LICENSED TEACHING/ADMINISTRATIVE POSITIONS:

http://schooljobs.dpi.state.nc.us/

Applications can be sent to:
Barbara Knight, Human Resources Assistant
205 Main Street/P O Box 125
Gatesville, NC 27938
Telephone: 252-357-1113 Ext. 32

POSTED: June 18, 2015
CLOSED: June 26, 2015 or until filled

CAREER AND TECHNICAL EDUCATION

TECHNOLOGY ENGINEERING AND DESIGN

The Technology Engineering and Design program is designed to provide middle and high school student's essential and enduring 21st Century skills. It is a STEM (Science, Technology, Engineering, and Math) program that uses languages, technologies, sciences, engineering and the arts to understand, communicate, and design. The program has three principle curriculum strands.

PROGRAM DESIGN

The Core Technology and Visualization strands incorporate several courses developed by the International Technology and Engineering Education Association, STEM Center for Teaching and Learning. The Pre-engineering strand is comprised of several middle and high school courses, developed by PLTW (Project Lead the Way), and two courses Principles of Technology I and II, developed by the Center for Occupational Research and Development (CORD).

- **Core Technology**
  The Core Technology Strand is comprised of two middle school and three high school courses developed by the International Technology and Engineering Education Association, STEM Center for Teaching and Learning. The core strand provides students with a broad understanding of technology and its importance and its effects upon society, the economy and the environment. The core program weaves academic and technical concepts and skills using modeling and other strategies. Students apply, design and build conceptual, mathematical, graphic, and physical models to better understand enduring STEM concepts. In addition to academic technical skill development, students acquire higher level problem solving and critical-thinking skills as well as teaming and other essential "soft" skills.

- **Visualization**
  The Visualization Strand is comprised of four courses, developed by the International Technology and Engineering Education Association, STEM Center for Teaching and Learning. Scientific & Technical Visualization I and II and Game Art and Design and Advance Game Art and Design. The focus of the courses are principles, concepts, and use of complex graphic and visualization tools as applied to the study of science and technology. Students use complex 2D graphics, 3D animation, editing, and image analysis tools to better understand, illustrate, explain, and present technical, mathematical, and/or scientific concepts and principles. Students are introduced to the core concepts and skills of the electronic gaming industry. Emphasis is placed on the use of computer-enhanced images to generate both conceptual and data-driven models, data-driven charts, and animations. Science, math, and visual design concepts are reinforced throughout each course.

- **Pre- Engineering**
  The Pre –engineering strand is comprised of six middle school and nine high schools courses developed by PLTW, and two courses, Principle of Technology I and II developed by CORD. PLTW middle school program is an activities-oriented program designed to challenge and engages the natural curiosity and imagination of middle school students. Taught in conjunction with a rigorous academic curriculum, the program is divided into six independent, nine-week units: Design and Modeling, Automation and Robotics, Energy and the Environment, Flight and Space, Science of Technology, and Magic of Electrons.

The high school program is designed for students interested in pursuing careers in engineering.

engineering technology, or related science fields. It introduces students to the scope, rigor and disciple of engineering and covers a broad range of subjects such as globe challenges, digital electronics, computer integrated manufacturing, civil engineering and architecture, aerospace, and biotechnical engineering.

PLTW has developed a flexible program of study for all schools interested in the engineering pathways. Schools can offer a four-year sequence of courses focusing on preparing students for an engineering pathway. Schools with limited resources can implement PLTW Course Agreement, which allows schools to implement PLTW courses outside of a program. This flexibility allows schools to utilize PLTW curriculum on a course by course basic to fit their local schedules, budgets and establish programs. When PLTW courses are combined with traditional mathematics and science course students are introduced to the scope, rigor and discipline of engineering and engineering technology prior to entering college.

- **Principles of Technology** Principle of Technology is an applied-physics curriculum designed for students who learn more efficiently with a hands-on approach. Designed to present the discipline of physics in the context of how it is practically experienced in the world and how it is used in technology. Principles of Technology I or Principles of Technology II can count as a physical science credit required for graduation under certain conditions. **Hyper link to the CTE / Science credit document**

The Technology Engineering and Design program strands are not meant to be isolated programs, but rather combined and woven as needed by the students being served. Just as in the larger educational program, students should be guided into courses and programs that have a synergistic relationship. This provides students with the opportunity to apply otherwise academic and abstract concepts in ways that are meaningful, powerful, engaging and reflective of the skills and understandings necessary for success in the 21st Century.

Technology, Engineering, and Design

PLTW Gateway to Technology (middle grades)
Course Number:TP01 (8056)
Recommended Maximum Enrollment:20*
Recommended Hours of Instruction: Local decision
Course blueprint: Contact PLTW www.pltw.org
Prerequisite: None
Description:
Project Lead the Way (PLTW) Gateway to Technology (GTT) is an activities-oriented program designed to challenge and engage the natural curiosity and imagination of students. Taught in conjunction with a rigorous academic curriculum, the program is divided into six independent, nine-week courses. Course code TP01 is used for all of the courses. The courses include: PLTW Automation and Robotics, PLTW Design and Modeling, PLTW Energy and the Environment, PLTW Flight and Space, PLTW Green Architecture, PLTW Medical Detectives (MD), PLTW Science of Technology, and PLTW The Magic of Electrons.

Technological Systems (middle grades)
Course Number:TE02 (8203)
Recommended Maximum Enrollment:20*
Recommended Hours of Instruction: Local decision
Course blueprint: Summer 2012 (pdf, 70kb)
Prerequisite: None
Description:
This middle school course focuses on students' understanding how technological systems work together to solve problems and capture opportunities. As technology becomes more integrated and systems become dependent upon each other, this course gives students a general background on the different types of systems, with specific concentration on the connections between these systems. Art, English language arts, mathematics and science are reinforced. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences. Technology Design and Innovation is recommended as preparation for this course.

Technology Design and Innovation (middle grades)
Course Number:TE01 (8201)
Recommended Maximum Enrollment:20*
Recommended Hours of Instruction: Local decision
Course blueprint: Summer 2012 (pdf, 864kb)
Prerequisite: None
Description:
This middle school course focuses on applying the design process in the invention or innovation of a new product, process, or system. Through engaging activities and hands-on projects, students focus on understanding how criteria, constraints, and processes affect designs. Emphasis is placed on brainstorming, visualizing, modeling, testing, and refining designs. Students develop skills in researching information, communicating design information, and reporting results. Activities are structured to integrate physical and social sciences, mathematics, English language arts, and art. Work-based learning strategies appropriate for this course include mentorship, school-based enterprise, service learning, and job shadowing. Apprenticeship and cooperative education are not available for this course. Technology Student Association (TSA) competitive events, community service, and leadership activities provide the opportunity to apply essential standards and workplace readiness skills through authentic experiences.

Area	Requirements
Technology Education **820**	**Eligibility Requirements:**
	Degree Bachelor's degree in related field Examples: Architecture, Communications, Construction, Industrial Design, Engineering, Industrial Technology, Manufacturing, Transportation, Science, Industrial Arts, Trade and Industrial Education ("A" level License)
	Work Experience ♦ Two years industry-related work experience within the past five years ♦ Examples: engineer, construction manager, graphics designer, industrial designer, electronics technician, computer technician, network technician, manufacturing technician, construction related technician, project developer
	Clearing specific requirements: **Coursework** **A total of 18 semester hours (with a minimum of 6 semester hours per school year) isrequired from the following courses:** ♦—Curriculum, Instructional Planning, and Assessment ♦— Instructional Methods ♦ Reading in the Content Area ♦ Meeting Special Learning Needs; Introduction to Exceptionalities; Diversity ♦ Classroom Management OR Learning Theory; Learning Styles; Motivation; How Adolescents Learn ♦ Lab Management and Safety **Course Requirements** **Additional coursework is required for teaching Principles of Technology, Scientific and Technical Visualization, and Project Lead the Way. Refer to endorsement areas.**
	Credential Praxis II Specialty Area exam is required
	Induction The 40-hour Technology Education New Teacher Induction Program approved by the North Carolina Department of Public Instruction, Division of Career and Technical Education is required.