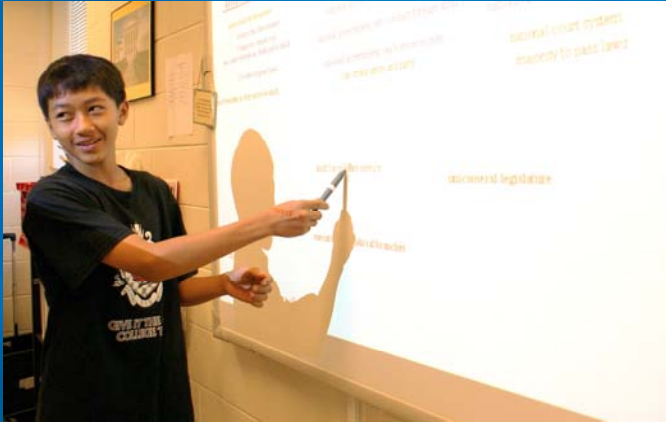


CHESTERFIELD COUNTY PUBLIC SCHOOLS



2010-2014

# Technology Master Plan



# Instructional Goals and Support Tools

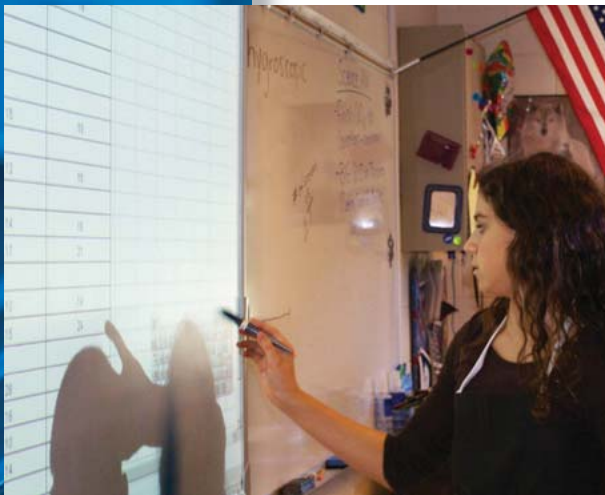


## Teachers

- Netbooks
- Home access of curriculum resources
- Secure student information view
- Wireless access in schools

## Elementary School Students

- Type 30 words per minute
- Research using the Internet
- Apply Internet safety strategies



## Middle School Students

- Master word processing
- Create spreadsheets and presentations
- Explore global and collaborative learning
- Use the Internet safely

## High School Students

- Use advanced computer operational skills
- Use technology as a tool for learning
- Use wireless technologies
- Take core and elective online classes



# Executive Summary

The first decade of the 21st century has been a period of renewed purpose and effort for technology in Chesterfield County Public Schools. Citizens have supported the purchase, replacement and integration of technology in instruction through millions of dollars in bonds. The results are an instructional program infused with 21st-century technology skills and an infrastructure that meets or exceeds any business in our community.



Three forces guided the creation of this plan. The Design for Excellence strategic plan provides the technology plan's vision and the basis for its goals. The technology plan's structure comes from work provided by the Virginia Department of Education. The final guiding force, the skills, is the combined work of the Technology Advisory Committee and the Technology Leadership Academy.

Strategies for implementing the goals and objectives of the plan were determined by more than 100 teachers, parents and administrators. Every strategy that was written to an objective takes at least one of the three following themes into consideration:

**Accessibility** — Extending learning environments beyond the hours and the boundaries of the school buildings. This includes building infrastructure to provide secure access for learners in various environments.

**Equity** — Providing centralized, web-based technology resources for all learners. This will reduce the total cost of ownership, lower the cost of user equipment and provide similar resources for all teachers and all students.

**Accountability** — Making sure that equipment is used and curriculum is followed are of paramount importance. This increases the role of the administrator, provides extensive testing for all and requires testing at various levels.

The organization of the plan is similar to the previous plan and to the state technology plan:

1. **Curriculum** — The redesigned curriculum of Chesterfield County Public Schools has technology imbedded into every content area as a 21st-century skill.
2. **Support** — Tools and technical support for technology in schools ensure successful technology integration.
3. **Professional Development** — Training and professional development will be required for all technology users to ensure successful implementation of the curriculum.
4. **Accountability** — This plan holds all parties accountable for learning and application.

# Role of a Technology Plan



The technology plan serves as a vehicle to empower all learners to execute the instructional objectives of the school division as defined by the curriculum and the Design for Excellence strategic plan. It is not one department's plan but a collective initiative to be incorporated into every school's actions for school improvement.

The technology plan sets levels of expectation not only for equipment and infrastructure but also for student learning, instructional delivery and school leadership. Funding reaches beyond the Capital Improvement Plan to departmental and grant resources.

## Guiding Forces

The technology plan was formed by three guiding forces that provide the structure for the goals and objectives. These three guiding forces overlap and intertwine throughout the technology plan.

The **Design for Excellence** is a six-year strategic plan to achieve the Chesterfield School Board's vision:

- **academic excellence for all students**
- **safe, supportive and nurturing learning environments**
- **knowledgeable and competent workforce**
- **community investment in schools**
- **effective and efficient system management**

The technology plan must be approved by the Virginia Department of Education and must correlate to these structural **elements of technology**:

- **environment** — where students learn, to occur in a variety of places including home and in cross-curricular ways
- **engagement** — evidence of students being involved in engaging work, where the teacher serves as a facilitator
- **tools** — students have ready and equal access to technology tools to meet 21st-century curricular needs
- **results** — accountability requires that technology expenditures are tracked and assessed for impact on student learning



# The Technology Plan *Guiding Forces*

- Design for Excellence
- Elements of the State Technology Plan
- 21st-Century Technology Skills for CCPS

In the two years leading to the technology plan creation, the **Technology Advisory Committee and the Technology Leadership Academy** met separately to provide input for the formation of goals and objectives. Their efforts were twofold: to investigate and develop a list of skills needed for successful employees in the 21st century and to determine what resources should be provided to accomplish these goals.

**The committees came together to merge their ideas from the classroom and workplace to create a list of skills considered imperative for learner success:**

- **creativity and innovation** — Learners will use current technologies to enhance creativity.
- **communication/presentation** — Learners will integrate technology applications to communicate effectively and present concepts across the curriculum.
- **problem solving and critical thinking** — All learners will use the tools of technology to think critically, solve problems and become lifelong learners.
- **technology basics** — Learners will master technology skills, tools and applications and will work within the auspices of acceptable use to achieve success in the 21st century.
- **virtual learner** — Learners will possess the knowledge, skills and attitudes necessary to learn in and contribute to virtual communities.
- **information management** — Learners will strategically and ethically identify, organize and analyze data from a variety of sources to effectively manage information.

# Goals and Objectives

## CURRICULUM

**Goal 1:** The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.

- Objectives**
1. Engage K-2 students with technology through the use of age-appropriate devices.
  2. Employ collaborative and creative technology tools to deliver curriculum.

**Goal 2:** Promote learner engagement through technological collaboration.

- Objective**
1. Administrators will create communication venues with their staffs about school-related issues.

**Goal 3:** Learners will be empowered to use effectively a variety of technologies to enhance creative and innovative thinking.

- Objective**
1. Provide essential equipment and training to enable students to create video-enhanced instructional projects.

**Goal 4:** Integrate communication technologies to enhance instruction and engage learners.

- Objectives**
1. Increase student collaboration as an instructional method.
  2. Deploy school site technology that allows video streaming to classrooms from cable television or local video sources.

**Goal 5:** All learners will master technologies to learn effectively in real and virtual environments.

- Objective**
1. Expand the current online program by developing an online academy for high school students, offering the core courses required for graduation from high school.



**Goal 6:** Technology will be integrated into instruction to promote problem solving and critical thinking by all learners.

**Objective** 1. Student learning and achievement will be empowered through a systematic use of innovative technology tools.

**Goal 7:** All learners will have access to and training in applications that encourage problem solving and critical thinking.

**Objective** 1. Provide anytime/anywhere curriculum applications, at school and at home, for all students through a centralized program.

**Goal 8:** Instruct and encourage authentic problem solving and critical thinking using technology tools.

**Objective** 1. Schools will determine a set of problems for student groups to examine and find solutions using a variety of technology tools.

**Goal 9:** Learners will apply technology skills within engaging instructional activities to enhance learning.

**Objective** 1. Develop models of instructional delivery that engage students.

**Goal 10:** All learners will have the knowledge to select the appropriate technology applications in order to accomplish 21st-century tasks.

**Objective** 1. Teachers and students are able to select appropriate research and presentation technologies.

**Goal 11:** All learners will achieve established technology skill competencies that reflect real-world needs.

**Objective** 1. All students meet a minimum level of competency of technology skills.



## SUPPORT

**Goal 1:** The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.

**Objectives**

1. Engage students in grades K-2 with technology through the use of touch-screen devices.
2. Engage students in grades 3-12 with technology through the use of age-appropriate devices.

**Goal 2:** All learners will have access to technology that enhances the creative environment and provides authentic, real-world experiences.

**Objectives**

1. Promote support by CCPS leadership to expanding online learning opportunities with regard to needs and resources.
2. Provide large group instruction for grades K-12, through the use of a mobile environment.
3. Provide student storage space for classroom presentation and collaboration activities.

- Goal 3:** The learning environment will encourage problem solving and critical thinking through the use of current technologies.  
**Objective** 1. Provide netbook web-based computing devices for all teachers/administrators.
- Goal 4:** A variety of learning environments will be developed to ensure that all learners obtain essential technology skills.  
**Objective** 1. Provide technological centers within the classroom to encourage self-directed learning through intellectual investigation on the Internet.
- Goal 5:** Essential technology tools will be made available to all learners to accomplish 21st-century tasks.  
**Objective** 1. Review emerging technologies to identify software/applications that will improve student and teacher success.
- Goal 6:** All learners will have access to teaching and learning environments that encourage the use of Web 2.0 tools.  
**Objective** 1. Web 2.0 tools will be made available to students and teachers.
- Goal 7:** Ensure that all learners have access to technology-rich collaborative environments.  
**Objectives** 1. Provide video-conferencing functionality for the school division that will allow instructional enhancement and leadership collaboration.  
 2. Provide whole-class presentation technologies for all classroom spaces.  
 3. Promote access to online media-rich teaching resources within classroom environments.  
 4. Provide standardized classroom software and hardware to support teaching and learning.
- Goal 8:** Develop systems of information management and delivery to ensure the engagement of a variety of communities.  
**Objective** 1. Simplify content management of school web sites while maintaining a reflection of each individual school's climate and school spirit.
- Goal 9:** Obtain the necessary applications to ensure effective information security and technology management.  
**Objectives** 1. Monitor Active Directory in real time, with direct notification sent to administrators when changes occur, thereby ensuring system integrity and timely response to potential violations.  
 2. Provide interoperability between Student Information System and other selected student information dependent applications.  
 3. Ensure that Chesterfield County Public Schools has a centralized backup and archival strategy and a disaster recovery plan in place in order to meet the system's educational needs and state- and federal-mandated data retention policies.  
 4. Ensure any modifications made to software applications or network infrastructure configurations are properly documented and approved.
- Goal 10:** Provide instructional support applications that enhance teaching and learning.  
**Objectives** 1. Provide a teacher portal containing pertinent student information and provide for efficient and user-friendly recording of student attendance.  
 2. Provide secondary students a portal for course preregistration.  
 3. Provide web portal with lesson plans from master teachers, to include videos of lessons being taught.

## PROFESSIONAL DEVELOPMENT

**Goal 1:** All learners will have access to and training in applications that enhance communication and encourage problem solving and critical thinking.

- Objectives**
1. Administrators must plan in writing, either through the School Improvement Planning process or through a separate Technology Plan, a training schedule that includes opportunities for all staff members.
  2. Provide technology staff development to enhance communication and encourage problem solving and critical thinking.

**Goal 2:** All learners will master technologies to learn effectively in real and virtual environments.

- Objective**
1. Provide professional development to develop a cadre of highly qualified online teachers.

**Goal 3:** All learners will have the knowledge to select appropriate technology applications in order to accomplish 21st-century tasks.

- Objectives**
1. Administrators will become 21st-century technology leaders through systematic training and uncompromising staff expectations.
  2. Create an online technology academy i3 (Innovation, Imagination & Integration Academy) centered on instructional innovation and integration.
  3. Create video-based technology professional development that can be accessed online.

**Goal 4:** All learners will achieve established technology skill competencies that reflect their real-world needs.

- Objective**
1. Establish a minimum number of teacher training hours for recertification in technology as a 21st-century tool.



**Goal 5:** Promote learner engagement through technological collaboration.

**Objective** 1. Promote understanding of student academic success through interpretation of test scores and other data.

**Goal 6:** Provide all learners access to asynchronous technology professional development.

**Objective** 1. Provide online learning modules that demonstrate how software/applications/tools can be used effectively.

## ACCOUNTABILITY

**Goal 1:** Develop assessments for all learners that measure technology skills in the creative and innovative process.

**Objective** 1. Assess student learning using districtwide technology standards.

**Goal 2:** Use communication vehicles that provide access to assessments of learning and performance.

**Objective** 1. Use a variety of delivery methods to inform various publics about outcomes in student learning and performance.

**Goal 3:** Learners will assess data sources to develop effective and individualized instruction.

**Objective** 1. Provide training to teachers and administrators in the interpretation of data to individualize instruction.

**Goal 4:** Create a system for continuous assessment of technology management effectiveness.

**Objective** 1. Track all computers, network resources and peripherals from acquisition to retirement.

**Goal 5:** Improve districtwide equity in the integration of technology.

**Objective** 1. Require all teachers to integrate technology into their lessons.



# Technology Advisory Committee

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Creek Middle

# Chesterfield County School Board



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Bermuda District



**Dianne Pettitt**  
Clover Hill District



**David Wyman**  
Dale District



**Omarh Rajah**  
Matoaca District



**Patricia Carpenter**  
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### *Vision*

In 2012, we envision that every Chesterfield school will be a thriving, dynamic and inspiring educational environment that produces self-directed learners with 21st-century skills and stimulates citizens of all ages to trust in, invest in and benefit from public education.

### *Mission*

The mission of Chesterfield County Public Schools is to work in partnership with students, families and the community to ensure that each student acquires the knowledge, skills and core values necessary to achieve personal success and to enrich the community.

### *Core Values*

Respect, responsibility, honesty and accountability are the core values of Chesterfield County Public Schools.

### *Department of Technology Mission*

The mission of the Department of Technology is to provide training, support and leadership in all areas of school technology to help ensure that each student acquires the skills necessary to achieve personal success and to enrich the community.

### *Nondiscrimination*

Chesterfield County Public Schools does not unlawfully discriminate on the basis of sex, race, color, age, religion, disability or national origin in employment or in its educational programs and activities.

## STRAND: CURRICULUM

<b>Goal (1):</b>	The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.
<b>Objective (1):</b>	Engage K-2 students with technology through the use of age appropriate devices.

### Direct Benefit to Teaching and Learning

K-2 students require access to computing devices that they can use before traditional typing/input skills are developed.

### Strategies

- Deploy one mobile cart of touch screen computing devices to each K-2 grade level to facilitate in room group instruction.

### Assessments

- Procure, configure, and deploy cart with devices for a single grade level for each elementary school.
- Based upon evaluation of initial grade level rollout, proceed or modify strategy to continue deployment.

## STRAND: CURRICULUM

<b>Goal (1):</b>	Integrate technology into instruction in order to provide multiple methods of engaging students in creative and innovative learning opportunities.
<b>Objective (2):</b>	Employ collaborative and creative technology tools to deliver curriculum.

### Direct Benefit to Teaching and Learning

To enrich teaching and learning through innovative technology tools, students and teachers will have the ability to create and deliver lessons to enrich the curriculum to support student achievement.

### Strategies

- Improve and enrich instruction through the collaborative use of interactive whiteboards.
- Integrate the use of document cameras and video/data projectors in classrooms.
- Deploy digital image/video camera for instruction.
- Develop a pilot program which integrates the use of mobile technology tools by students.

### Assessments

- Document the number of interactive whiteboard installed at the specified levels and locations.
- Assess the availability of video/data projectors in elementary classrooms.
- Document and provide one set of 15 digital image/video cameras in each school.
- Pilot the use of mobile technologies by students and conduct an evaluation to determine the instructional benefits.

## STRAND: CURRICULUM

<b>Goal (2):</b>	Promote learner engagement through technological collaboration.
<b>Objective (1):</b>	Administrators will create communication venues with their staffs about school-related issues.

### **Direct Benefit to Teaching and Learning**

Administrators need to be technology leaders in order to promote the use of technology in their schools. Beyond basic computer skills, administrators should be well versed in the use of Web 2.0 tools as they apply to leadership.

### **Strategies**

- Administrators will create a blog to elicit staff discussion about a school-related issue.
- Administrators will use survey tools to gather thoughts of their staff members on school-related issues.
- Administrators will use the Information Delivery System (IDS) to discuss school needs with staff.

### **Assessments**

- The number of blogs created by administrators.
- The number of staff surveys conducted.
- Documentation of faculty meetings using data from IDS.

## STRAND: CURRICULUM

<b>Goal (3):</b>	Learners will be empowered to utilize effectively a variety of technologies to enhance creative and innovative thinking.
<b>Objective (1):</b>	Provide the essential equipment and training to enable students to create video enhanced instructional projects.

### Direct Benefit to Teaching and Learning

The ability to produce simple video projects provides skills in developing higher level communication applications. This development provides students the opportunity to apply actively subject area knowledge through a creative medium.

### Strategies

- Develop expectations for student video project development.
- Develop instructional lessons which incorporate video production into the curriculum.
- Design production kits to provide whole-class access to video production and editing equipment.
- Establish training lessons for students at various grade levels.

### Assessments

- Confirm the availability of video editing equipment/software at every school.
- Video editing training provided at every school.
- Number of video enhanced projects be created at all schools.

## STRAND: CURRICULUM

<b>Goal (4):</b>	Integrate communication technologies to enhance instruction and engage learners.
<b>Objective (1):</b>	Increase student collaboration as an instructional method.

### Direct Benefit to Teaching and Learning

To enrich teaching and learning through innovative technology tools, students and teachers will have the ability to create and deliver lessons to enrich the curriculum to support student achievement.

### Strategies

- Collaborate using Web 2.0 tools to enrich instruction.
- Collaborate using online portals.
- Create a public display of best practice Web 2.0 lessons.

### Assessments

- Total the number of online class portals created in CCPS Portal.
- Total number of collaborative sessions at CITE.

## STRAND: CURRICULUM

<b>Goal (4):</b>	Integrate communication technologies to enhance instruction and engage learners.
<b>Objective (2):</b>	Deploy school site technology which allows video streaming to classrooms from cable television or local video sources.

### Direct Benefit to Teaching and Learning

The computer and projector have replaced televisions as the primary delivery method of video in the classroom. As part of this transformation, a methodology is needed to enable a school library to send live or recorded video to all classrooms. Examples of applications include local produced "news" shows, meet the author programs on PBS, auditorium events or a recorded program needed by multiple classes simultaneously.

### Strategies

- Create a broadcast streaming station at each school.
- Investigate available technologies for school-site broadcast streaming.
- Determine internal bandwidth requirements.
- Perform cost/benefit analysis, to include training and support.

### Assessments

- Total the number of schools actively using streaming stations.

## STRAND: CURRICULUM

<b>Goal (5):</b>	All learners will master technologies to learn effectively in real and virtual environments.
<b>Objective (1):</b>	Expand the current online program by developing an online academy for high school students offering the core courses required for graduation from high school.

### Direct Benefit to Teaching and Learning

Virtual learning environments support student-centered learning, which provides more opportunities for teachers to focus on individualized instructional practices and engaging activities. Students have the ability to complete their learning in a variety of ways and timeframes. Online courses provide opportunities for students to take courses that may not be offered at their home school and try alternative paths to meet graduation requirements that may not be available in a traditional classroom environment.

### Strategies

- Develop and provide well-designed, engaging online courses for students that develop 21<sup>st</sup> century skills along with required content proficiency.
- Provide an online learning environment that provides access to current technology tools supporting online communication and collaboration activities for students including but not limited to Web 2.0 tools.
- Develop teaching and learning standards for online learning.

### Assessments

- Core courses required for graduation from high school developed over a three-year period.
- Evaluation of courses with regards to integration of Web 2.0 tools.
- Evaluation process in place based on standards.

## STRAND: CURRICULUM

<b>Goal (6):</b>	Technology will be integrated into instruction to promote problem solving and critical thinking by all learners.
<b>Objective (1):</b>	Student learning and achievement will be empowered through a systematic use of innovative technology tools.

### Direct Benefit to Teaching and Learning

To enrich teaching and learning through innovative technology tools, students and teachers will have the ability to create and deliver lessons to enrich the curriculum to support student achievement.

### Strategies

- Utilize technology resources to support the designed curriculum and desired assessment outcomes.
- Provide and offer a schedule of innovative K-12 lessons.

### Assessments

- Document administrator observations on student engagement of curriculum-based technologies.
- Document integrator use in schools by classroom integrations, content, grade level and teacher.

## STRAND: CURRICULUM

<b>Goal (7):</b>	All learners will have access to and training in applications which encourage problem solving and critical thinking.
<b>Objective (1):</b>	Provide anytime/anywhere curriculum applications, both at school and home, for all students through a centralized program.

### Direct Benefit to Teaching and Learning

Students require access to curriculum/resources from any location that is connected to the internet.

### Strategies

- Purchase curriculum servers to enable students to access student resources 24/7.
- Migrate curriculum software from school-based to enterprise. Implement curriculum web servers to deliver instructional resources through a web browser. These resources will be deployed so students will be able to access them from home or school regardless of computer platform. This will extend the classroom resources to accomplish anytime/anywhere learning.

### Assessments

- Evaluate student access to the learning environment beyond time at school.
- Ensure that students have access to resources regardless of which school they attend.
- Document student learning beyond the classroom.

## STRAND: CURRICULUM

<b>Goal (8):</b>	Instruct and encourage authentic problem solving and critical thinking using technology tools.
<b>Objective (1):</b>	Schools will determine a set of problems for student groups to examine and find solutions using a variety of technology tools.

### Direct Benefit to Teaching and Learning

Students learn best those lessons that have meaning in their own lives. Student learning is enhanced when they are confronted with real problems or situations for which they need to find solutions.

### Strategies

- Create a library of real-world problems for school/student selection.
- Develop models for teacher and student training.
- Implement a competitive grant process for the purchase of innovative technology tools to encourage implementation.

### Assessments

- Number of real world problems created within library.
- Training models created.
- Number of applications received from schools.
- Conduct classroom observations to observe student engagement in real-world problem solving activities.

<b>STRAND: CURRICULUM</b>	
<b>Goal (9):</b>	Learners will apply technology skills within engaging instructional activities to enhance learning.
<b>Objective (1):</b>	Develop models of instructional delivery which engage students.

### **Direct Benefit to Teaching and Learning**

Academic excellence is achieved by students who are thoroughly engaged in their own learning. Research shows that students learn and retain more through doing rather than through receiving.

### **Strategies**

- The division of instruction, including instruction and technology, will design lessons which model student engagement and post examples on portal.
- Staff development and instructional specialists will provide training on using lessons focusing on student engagement.
- Teachers will deploy lessons focusing on student engagement in their classrooms.

### **Assessments**

- Number of model lessons available through CCPS portal.
- Student engagement lesson training designed and delivered to teachers across grade levels.
- Number of student engagement lessons presented as seen through principal observation.

## STRAND: CURRICULUM

<b>Goal (10):</b>	All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.
<b>Objective (1):</b>	Teachers and students are able to select appropriate research and presentation technologies.

### Direct Benefit to Teaching and Learning

21<sup>st</sup> Century technology will provide a myriad of choices for both teacher and student. Choosing from among these choices will be a task that must be taught and learned. All learners will have a need to evaluate available resources in order to select the best tool for the job at hand.

### Strategies

- Provide training for teachers and students to select research and various presentation technologies appropriate for accomplishing 21<sup>st</sup> Century tasks.

### Assessments

- Document the number of teachers and students trained.

## STRAND: CURRICULUM

<b>Goal (11):</b>	All learners will achieve established technology skill competencies which reflect their real-world needs.
<b>Objective (1):</b>	All students meet a minimum level of competency of technology skills.

### Direct Benefit to Teaching and Learning

Students will learn what is both relevant and necessary to their lives. In the 21<sup>st</sup> Century students will need to be comfortable and adept at using technology in various ways and at various levels of expertise.

### Strategies

- Establish technology competencies by grade-level.
- Embed technology competencies into the curriculum.

### Assessments

- Scope and sequence for technology skills is created.
- Technology instruction is embedded into various curricula areas.

## STRAND: SUPPORT

<b>Goal (1):</b>	The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.
<b>Objective (1):</b>	Engage K-2 students with technology through the use of age appropriate devices.

### Direct Benefit to Teaching and Learning

Primary age students need access to technology that assists in their learning. K-2 students require access to touch screen computing devices that they can use before traditional typing/input skills are developed.

### Strategies

- Deploy one mobile cart of touch screen computing devices to each K-2 grade level to facilitate in room group instruction.

### Assessments

- Procure, configure, and deploy cart with devices for a single grade level for each elementary school.
- Based upon evaluation of initial grade level rollout, proceed or modify strategy to continue deployment.

## STRAND: SUPPORT

<b>Goal (1):</b>	The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.
<b>Objective (2):</b>	Engage 3-12 students with technology through the use of age appropriate devices.

### Direct Benefit to Teaching and Learning

Students and teachers need computing access throughout the school building at different times of the instructional day. In school, anytime, anywhere access extends learning to all environments within the building.

### Strategies

- Deploy one mobile cart of computing devices to each 3-12 grade level to facilitate in-room group instruction.

### Assessments

- Procure, configure, and deploy cart with devices for a single grade level for each school.
- Based upon evaluation of initial grade level rollout, proceed or modify strategy to continue deployment.

## STRAND: SUPPORT

<b>Goal (2):</b>	All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.
<b>Objective (1):</b>	Promote support by CCPS leadership to expanding the online learning opportunities with regard to needs and resources.

### Direct Benefit to Teaching and Learning

Regular communication and evaluation of programs enhance both acceptance and support. Leadership must have a keen understanding of project goals in order to fully support the project. The online learning environment restores relevance and authenticity to the school experience for 21<sup>st</sup> century learners.

### Strategies

- Implement an evaluation process for online learning.
- Communicate to stakeholders' successes, plans, and needs of the online learning program on an on-going basis.

### Assessments

- Data collected from evaluation process and improvements to program as appropriate, with emphasis on student achievement.
- Regular formal and informal reports to leadership.
- Web site postings for communication to learning community.

## STRAND: SUPPORT

<b>Goal (2):</b>	All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.
<b>Objective (2):</b>	Provide large group instruction for grades K-12, through the use of a mobile environment.

### Direct Benefit to Teaching and Learning

An environment that encourages anytime, anywhere learning within a school building is desirable. Students and teachers will have the opportunity to engage in teaching and learning in various venues throughout the school building.

### Strategies

- Implement wireless mobile computing environment school-wide.

### Assessments

- Design, procure, and install wireless infrastructure for each location.
- Ensure sufficient wireless access is provided in all instructional areas.

## STRAND: SUPPORT

<b>Goal (2):</b>	All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.
<b>Objective (3):</b>	Provide student storage space for classroom presentation and collaboration activities.

### Direct Benefit to Teaching and Learning

Students and teachers need storage areas that can both allow storage of work materials and can, with permissions, allow lesson collaboration. These storage areas should be both robust and secure in order to protect the integrity of student work.

### Strategies

- Establish network applications and file storage for secure access.
- Provide training and storage space maintenance plan.

### Assessments

- Measure the number of active unique users at each school site.
- Measure the effectiveness of the solution by survey.

## STRAND: SUPPORT

<b>Goal (3):</b>	The learning environment will encourage problem solving and critical thinking through the use of current technologies.
<b>Objective (1):</b>	Laptop web-based computing device for all teachers/administrators.

### Direct Benefit to Teaching and Learning

Currently only high school teachers have access to portable computing devices which allow home access. All teachers in the 21<sup>st</sup> Century will need mobile access to school resources both at school and at home.

### Strategies

- Deploy portable web-based computing devices to all teachers K-12.

### Assessments

- Number of computing devices deployed.
- Teacher and administrator assessment of this technology's contribution toward creating effective and engaging instruction.

## STRAND: SUPPORT

<b>Goal (4):</b>	A variety of learning environments will be developed to ensure that all learners obtain essential technology skills.
<b>Objective (1):</b>	To provide technological centers within the classroom to encourage self directed learning through intellectual investigation on the internet.

### Direct Benefit to Teaching and Learning

Within a classroom, students and teachers need to be able to do spontaneous research and to access school resources to enhance learning. Students should not have to leave the classroom to problem solve or to do research.

### Strategies

- Implementation of three computing devices per standard-sized classroom to provide internet access and access to CCPS resources.

### Assessments

- Establish a standard learning environment design at each instructional level.
- Procure, configure, and deploy devices to each standard-sized classroom.
- Examine the curriculum for examples differentiated student activities and observe the affect of these devices in the support of such activities.

## STRAND: SUPPORT

<b>Goal (5):</b>	Essential technology tools will be made available to all learners to accomplish 21 <sup>st</sup> Century tasks.
<b>Objective (1):</b>	Review emerging technologies to identify software/applications that will improve student and teacher success.

### Direct Benefit to Teaching and Learning

Change is one known constant in technology. It is important to form a committee to look proactively for and find valuable resources that will help improve academic excellence at our schools.

### Strategies

- Establish a committee that will meet at least twice a year to identify and recommend valuable software/application resources.
- Evaluate Web 2.0 (and beyond) applications
- Upgrade to current versions of software/applications
- Create an online forum area for committee members to discuss and review new software/applications throughout the year.

### Assessments

- Documented semi-annual meetings of software review committee.
- Minutes for software review committee meetings showing all software/applications that were reviewed and the outcome of that review.
- Online forum area created for software review committee within two weeks of the first meeting.
- Online forum usage monitored and reviewed at each meeting.

## STRAND: SUPPORT

<b>Goal (6):</b>	All learners will have access to teaching and learning environment that encourage the use of Web 2.0 tools.
<b>Objective (1):</b>	Web 2.0 tools made available to students and teachers.

### **Direct Benefit to Teaching and Learning**

Engaging students in their learning is important to learner success. Students in this century rely on technology tools in their daily life. Schools should deploy some of the same tools students use in their non-school lives in schools to help engage students in their own learning.

### **Strategies**

- Provide and support access to collaborative learning tools such as but not limited to blogs, wikis, discussion boards, file exchange and synchronous applications for use in traditional face-to-face courses at all levels.

### **Assessments**

- Number of Web 2.0 tools deployed.

## STRAND: SUPPORT

<b>Goal (7):</b>	Ensure that all learners have access to technology-rich collaborative environments.
<b>Objective (1):</b>	Provide video conferencing functionality for the school division that will allow instructional enhancement and leadership collaboration.

### Direct Benefit to Teaching and Learning

The opportunity for students to have direct contact with experts, authors or other students in the global community provides a unique learning environment. However, teleconferencing has been difficult due to network security structures.

The fact that school administrative offices are housed in three locations creates significant communication limitations and frequent travel. Established teleconference spaces and equipment will allow frequent face to face on conversations with the lost travel time.

### Strategies

- Measure the interest in developing administrative teleconferencing capabilities.
- Assess the need to provide teleconferencing capabilities which provide direct instruction between schools.
- Identify teleconferencing applications or equipment which allows secure connections between schools and sites outside of the school division.
- Develop teleconferencing procedures which assures network security.
- Assess bandwidth limitations at each elementary and secondary school, as well as, administrative buildings.
- Develop equipment plans that meet the needs of administrative, school to school and school to external site applications.

### Assessments

- Frequency of use.
- Cost/benefit analysis – cost of travel, hiring a part-time teacher.

## STRAND: SUPPORT

<b>Goal (7):</b>	Ensure that all learners have access to technology-rich collaborative environments.
<b>Objective (2):</b>	Provide whole-class presentation technologies for all classroom spaces.

### Direct Benefit to Teaching and Learning

The availability of video/data projectors in classrooms aides in the instructional process and provides all students the ability to see visual elements of instruction.

Significant investments have been made in classroom presentation technologies in the past six years. All high school and all middle school classrooms will have installed projectors. Elementary schools use a mobile solution which provides a laptop, projector and speakers – one for every three rooms. Maintenance costs include bulb and projector replacement.

### Strategies

- Identify classrooms which are under resourced.
- Develop solutions that fit the space requirements and frequency of need.
- Provide asset security solution.
- Develop a plan for the purchase and support of presentation technologies.

### Assessments

- Conduct a survey of technology utilization to include classroom presentation devices.
- Assess the annual demand for support, parts, repairs and replacements.

## STRAND: SUPPORT

<b>Goal (7):</b>	Ensure that all learners have access to technology-rich collaborative environments.
<b>Objective (3):</b>	Promote access to online media-rich teaching resources within the classroom environments.

### Direct Benefit to Teaching and Learning

A technology-rich collaborative environment supports a greater diversity of teaching and learning styles.

### Strategies

- Develop and/or provide instructional e-Learning objects for access by teachers and students at their point of need.

### Assessments

- Instructional e-Learning objects available online both within the CCPS network and remotely for teacher and student use.
- Formalized process to identify content/skill targets for future e-Learning object development.

## STRAND: SUPPORT

<b>Goal (7):</b>	Ensure that all learners have access to technology-rich collaborative environments.
<b>Objective (4):</b>	Standardized classroom software and hardware to support teaching and learning.

### Direct Benefit to Teaching and Learning

Equitable technology resources must be provided to all schools to ensure access to various groups. A standard school package will help assure that all students have access to relevant technologies.

### Strategies

- Students and teachers routinely use standardized hardware and software to support the curriculum and technology standards.
- All classrooms should include a standard number of computing devices to support small and whole group instruction.
- Projectors: Grade K-5 = one for every two rooms; Grade 6-8 = One installed per standard classroom; Grade 9-12 = one installed per standard classroom.
- Interactive Boards Grades K-12: Two interactive boards per school installed in common use labs.
- Digital Cameras Grades K-12: Set of 15 digital cameras per school.

### Assessments

- Teachers routinely use hardware and software to support the curriculum and technology standards, as measured by administrative observation and documentation.
- Curriculum trainings offered to all schools on the software tools by content areas documented by the integrator database reports.
- Classrooms are standardized with the same equipment and documented by the technology services inventory.

## STRAND: SUPPORT

<b>Goal (8):</b>	Develop systems of information management and delivery to ensure the engagement of a variety of communities.
<b>Objective (1):</b>	Simplify content management of school websites at the school level while maintaining a reflection of each individual school's climate and school spirit.

### Direct Benefit to Teaching and Learning

In order to bring the greatest benefit to students and their parents, each school web site should reflect quality and standards in web page design. All schools should have the resources to establish and maintain a quality, user-friendly website without excessive training of a curator.

### Strategies

- Procure and implement content management system for district and school web pages.
- Collaborate with Community Relations to ensure compliance.

### Assessments

- Decrease in the number of support calls for website assistances.
- School websites are up-to-date with current and timely content.

## STRAND: SUPPORT

<b>Goal (9):</b>	Obtain the necessary applications to ensure effective information security and technology management.
<b>Objective (1):</b>	Monitor Active Directory in real time, with direct notification sent to administrators when changes occur, thereby ensuring system integrity and timely response to potential violations.

### Direct Benefit to Teaching and Learning

Ethical and safe use of technology resources is an expected practice for all users of educational technology.

### Strategies

- Evaluate and procure a management/security suite of products to ensure a safe and secure environment for student learning.

### Assessments

- User accounts and permissions are proactively managed by technology administrators.
- Any changes made to the system are logged and administrators alerted in a timely fashion.

## STRAND: SUPPORT

<b>Goal (9):</b>	Obtain the necessary applications to ensure effective information security and technology management.
<b>Objective (2):</b>	Provide interoperability between Student Information System and other selected student information dependent applications.

### Direct Benefit to Teaching and Learning

System-wide structure for efficiently integrating student data between diverse applications, reducing duplicate data entry and help for employees to support students' successful transitions within the educational continuum are needed.

### Strategies

- Procure, implement and deploy required infrastructure, and software agents, to support Student Interoperability Framework (SIF).

### Assessments

- Diverse applications interacting and sharing student data in accordance with SIF specifications, resulting in a reduction in data entry duplication.

## STRAND: SUPPORT

<b>Goal (9):</b>	Obtain the necessary applications to ensure effective information security and technology management.
<b>Objective (3):</b>	Ensure that CCPS has a centralized backup and archival strategy and a disaster recovery plan in place in order to meet the system's educational needs and state and federal mandated data retention policies.

### Direct Benefit to Teaching and Learning

When computing resources are secure and backed up, resources are available to teachers and students for learning.

### Strategies

- Development and implementation of a disaster recovery plan. Housing of backup data in separate locations to facilitate disaster recovery.

### Assessments

- A Disaster Recovery/Business Continuity Plan approved and implemented.
- Facilities, equipment, and other required components put in place to meet requirements of plan.
- Periodically exercise plan.

## STRAND: SUPPORT

<b>Goal (9):</b>	Obtain the necessary applications to ensure effective information security and technology management.
<b>Objective (4):</b>	Ensure any modifications made to software applications or network infrastructure configurations are properly documented and approved.

### Direct Benefit to Teaching and Learning

Precise management of technology resources is necessary to provide a consistent, safe and secure environment for students and staff.

### Strategies

- Determine district requirements, evaluate products and procure a change management system to meet requirements.

### Assessments

- Applications are in place that verify changes to applications, network infrastructure configurations, server configurations, and desktop and laptop base images are authorized, documented and approved.

## STRAND: SUPPORT

<b>Goal (10):</b>	Provide instructional support applications that enhance teaching and learning.
<b>Objective (1):</b>	Provide a teacher portal containing pertinent student information, and provide for efficient and user friendly recording of selected student data.

### Direct Benefit to Teaching and Learning

Teachers need an easy to use application providing teachers with real time access to their students' information as well as an entry point for class period attendance. The application will help teachers support students' successful transitions within the educational continuum.

### Strategies

- Create or procure application that interfaces with Student Information System.

### Assessments

- Teachers can securely access to their student information using CCPS' approved browser.
- Teachers can efficiently and easily record selected student data.

## STRAND: SUPPORT

<b>Goal (10):</b>	Provide instructional support applications that enhance teaching and learning.
<b>Objective (2):</b>	Provide secondary students a portal for course pre-registration.

### Direct Benefit to Teaching and Learning

The course selection process at secondary schools is a manual, paper-intensive process. An application is needed that would allow: students to submit their course requests online; counselors to review and verify course selections; course selection data to be loaded into the Student Information System electronically.

### Strategies

- Create or procure course pre-registration application.

### Assessments

- Middle and high school students are able to make their course requests online using an Internet browser.

## STRAND: SUPPORT

<b>Goal (10):</b>	Provide instructional support applications that enhance teaching and learning.
<b>Objective (3):</b>	Provide web portal with lesson plans from master teachers, to include videos of lessons being taught.

### Direct Benefit to Teaching and Learning

Teachers and administrators need to access training without leaving their buildings. Additionally, they need to be able to share information and collaborate online.

### Strategies

- Create or procure a content management system that would allow lesson sharing and review.

### Assessments

- Teachers and other staff are able to contribute and publish lesson plans, videos, and other educational resources via a district wide content management system.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (1):</b>	All learners will have access to and training in applications that enhance communication and encourage problem solving and critical thinking.
<b>Objective (1):</b>	Administrators must plan in writing, either through the School Improvement Planning process or through a separate Technology Plan, a training schedule that includes opportunities for all staff members.

### **Direct Benefit to Teaching and Learning**

The instructional program of a school is enhanced by strong vision and leadership. This leadership will benefit student through successful technology implementation.

### **Strategies**

- An administrator will assess staff technology training needs each year.
- Each administrator must write a comprehensive plan that specifies types of technology training needed and work with the technology department to ensure training is provided.
- The Chesterfield Informational Technology Expo (CITE) conference should be offered each year and administrators encouraged to require teachers and other staff members to attend.

### **Assessments**

- School assessments captured as part of school profile.
- A training plan is established each year.
- A tally of administrators and staff attending CITE is kept each year.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (1):</b>	All learners will have access to and training in applications that enhance communication and encourage problem solving and critical thinking.
<b>Objective (2):</b>	Provide technology staff development to enhance communications and encourage problem solving and critical thinking.

### **Direct Benefit to Teaching and Learning**

Teachers and administrators need accessible training to provide 21<sup>st</sup> Century lessons. Support for instruction and work productivity must be provided through staff development provided in i<sup>3</sup> Academy on communication tools, best work place practices, data, and problem solving.

### **Strategies**

- Provide online workshops for teachers and administrators that demonstrate best practices as outlined in the Design for Excellence key measures.
- Provide an annual technology conference with sessions on problem solving and critical thinking.
- Provide technology-based staff development for support staff on current office tools, student information, communication tools, data layout and design techniques, global connections, and best workplace practices to learn to incorporate 21<sup>st</sup> century tools for professional environments.

### **Assessments**

- Number of online workshops (5 to 45 recertification hours) offered through a portal for instructional personnel and administrators documented in SDRWeb.
- Conference attendance and evaluations.
- Every Fall and Spring semesters, a published list of workshops offered in the Academy. Activities documented in SDRWeb by name, attendance and recertification points.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (2):</b>	All learners will master technologies to learn effectively in real and virtual environments.
<b>Objective (1):</b>	Provide professional development to develop a cadre of highly qualified online teachers.

### **Direct Benefit to Teaching and Learning**

Research indicates that student success in the online learning environment is determined in part by the quality of the online instruction they received. Professional development for online teachers is significantly different from professional development for teaching in the face-to-face classroom.

### **Strategies**

- Provide training to teachers in understanding instructional design pedagogy and using online technology tools.
- Develop and/or provide e-Learning objects and other resources for access by teachers at their point of need for professional development.
- Develop and offer an online teaching methods course for teachers online.

### **Assessments**

- Training classes offered and number of enrollments for each class.
- Minimum training expectations and training plan defined for online teachers.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (3):</b>	All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.
<b>Objective (1):</b>	Administrators will become 21 <sup>st</sup> Century technology leaders through systematic training and uncompromising staff expectations.

### **Direct Benefit to Teaching and Learning**

A leader's strong advocacy for technology integration and strong understanding of and communication of 21<sup>st</sup> Century skills to staff members greatly enhances teaching and learning.

### **Strategies**

- Administrators will require teachers to use technology as a teaching tool, will require teachers to use the county adopted curricula and will evaluate teachers on technology application.
- A Technology Leadership Academy will be offered each year to administrators to learn the use of technology as a 21<sup>st</sup> Century tool.
- The Chesterfield Informational Technology Expo (CITE) conference should be offered each year and administrators encouraged to require teachers and other staff members to attend.

### **Assessments**

- Professional Growth and Performance Plans for teachers will be evaluated for technology use.
- The number of Technology Leadership Academy members will be assessed each year.
- A tally of administrators and staff attending CITE is kept each year.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (3):</b>	All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.
<b>Objective (2):</b>	Create an online technology academy i <sup>3</sup> (Innovation, Imagination & Integration Academy) which is centered on instructional innovation and integration.

### **Direct Benefit to Teaching and Learning**

To support the Design of Excellence of knowledgeable and competent workforce, specific district targets and key measures must be addressed through technology professional development opportunities. Teachers, administrators and support staff should have the opportunity to participate in a professional learning community which features instructional innovation, data analysis, communication, global connections, best practices and a continuous cycle of learning for all educators.

### **Strategies**

- Provide a virtual environment for all educators to download or view innovative and interactive lessons on curriculum or assessment topics to improve instruction for students.
- Offer technology-based staff development on communication tools, data analysis, global connections, and best instructional practices for teachers and administrators to learn how to integrate 21<sup>st</sup> century tools for instruction.

### **Assessments**

- Number of interactive lessons on CCPSPortal in many content areas and informal assessment topics.
- Every Fall and Spring semesters, a published list of workshops offered in the Academy. Activities documented in SDRWeb by name, attendance and recertification points.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (3):</b>	All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.
<b>Objective (3):</b>	Create video-based technology professional development that can be accessed online.

### **Direct Benefit to Teaching and Learning**

Teachers and other staff should be able to access technology training in a variety of convenient ways that will meet the needs of busy professionals.

### **Strategies**

- Determine goals for video-based technology training.
- Assess technical and instructional human resource requirements.
- Develop deployment methodology that allow home and school access.
- Create video-based technology training.

### **Assessments**

- Develop assessment tool to determine the value of training, as measured against usage and user evaluations.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (4):</b>	All learners will achieve established technology skill competencies which reflect their real-world needs.
<b>Objective (1):</b>	Establish a minimum number of teacher training hours for recertification in technology as a 21 <sup>st</sup> century tool.

### **Direct Benefit to Teaching and Learning**

Teachers must be trained in technology professional development standards to focus on content knowledge, quality teaching, researched-based strategies, collaboration, diverse learning needs, data analysis, evaluation, emerging technologies and instructional design to support student achievement.

### **Strategies**

- Provide technology training so that teachers can complete a minimum of 20 hours/20 points of technology integration training within a teacher recertification period (5 years) with non-repeating activities on curriculum content, instructional strategies, data-decision making and evaluation to support student achievement and instructional competency.

### **Assessments**

- Embed the teacher technology recertification requirements into the PGPP-T.
- Track technology training hours through SDRWeb.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (5):</b>	Promote learner engagement through technological collaboration.
<b>Objective (1):</b>	Promote understanding of student academic success through interpretation of test scores and other data.

### **Direct Benefit to Teaching and Learning**

Research indicates that having access to student data is only one step on the road to improving academic achievement. Being able to sort and analyze data to help in decision making and in lesson design is an important skill for both teachers and administrators.

### **Strategies**

- Provide data analysis training for teachers and administrators through IDS.

### **Assessments**

- Number of teachers and administrators who participate in data analysis and/or IDS training.

<b>STRAND: PROFESSIONAL DEVELOPMENT</b>	
<b>Goal (6):</b>	Provide all learners access to asynchronous technology professional development.
<b>Objective (1):</b>	Provide online learning modules that demonstrate how software/applications/tools can be used effectively.

### **Direct Benefit to Teaching and Learning**

As new software/applications/tools are purchased consistent training must be provided that offers not just knowledge on product usage, but successful application/integration of the products. Having online learning modules that will be available anytime/anywhere will be a powerful asset in making sure that CCPS gets the fullest value from the products.

### **Strategies**

- Create, as a standard, that online learning modules are developed in conjunction with new tools/products.

### **Assessments**

- Location created to store and share online learning modules by the end of 2009/2010 school year.
- Directory created listing all training modules that are available as of the end of the 2009/2010 school year.
- Directory updated as new training modules are added.
- Committee formed to meet quarterly to discuss which new software/applications/tools will have training modules starting with a planning meeting in the spring of 2010.
- Introductory training modules added for new software/applications/tools within 3 months of the identification of the need for training modules.
- Yearly reviews of training modules to ensure modules are up-to-date.

<b>STRAND: ACCOUNTABILITY</b>	
<b>Goal (1):</b>	Develop assessments for all learners that measures technology skills in the creative and innovative process
<b>Objective (1):</b>	Assess student learning using the district-wide technology standards.

### **Direct Benefit to Teaching and Learning**

Evaluation of students' use of 21<sup>st</sup> century technology skills and applications must be carried out to ensure that all students have the skills they need to be successful. Critical assessments are vital to ensure that all students meet the NCLB Technology Integration requirements. (NEW)

### **Strategies**

- Assess students in grades 3, 4 and 5 in keyboarding.
- Assess eighth grade students on their knowledge of technology applications, problem solving and critical thinking based on the NETS standards and P21 skills.

### **Assessments**

- Provide and document in IDS a yearly assessment of keyboarding skills for grades 3, 4 and 5 (3<sup>rd</sup> – 20wpm, 4<sup>th</sup> – 25wpm, 5<sup>th</sup> – 30wpm). Begin 2010.
- Provide and document in IDS a yearly assessment for eighth grade students of the required NCLB skills of technology integration, application and problem solving. Begin 2011.

<b>STRAND: ACCOUNTABILITY</b>	
<b>Goal (2):</b>	Use communication vehicles that provide access to assessments of learning and performance.
<b>Objective (1):</b>	Use a variety of delivery methods to inform various publics about outcomes in student learning and performance

### **Direct Benefit to Teaching and Learning**

The Chesterfield community is an integral part of assuring success in our schools. Parental support and communication between the schools and parents are important success components.

### **Strategies**

- Deploy online parent/student portal for regular communication with teacher.
- Compile information in State and Federal reporting categories which indicate progress in student learning and performance.
- Provide applications which allow benchmark testing to measure formative student learning and performance.

### **Assessments**

- Percentage of students and parents who have established online accounts.
- Frequency of teacher updates of online material.
- Reports accurate and timely.
- Benchmark application is provided and maintained at all levels.

<b>STRAND: ACCOUNTABILITY</b>	
<b>Goal (3):</b>	Learners will assess data sources to develop effective and individualized instruction.
<b>Objective (1):</b>	Provide training to teachers and administrators in the interpretation data to individualize instruction.

### **Direct Benefit to Teaching and Learning**

In order to individualize instruction and provide students both remediation and enhancements, teachers and administrators need to have current data presented in a comprehensive yet simplified manner.

### **Strategies**

- Provide training to teachers in IDS.
- Provide individualized training to administrators in IDS.

### **Assessments**

- The number of trainings provided.

<b>STRAND: ACCOUNTABILITY</b>	
<b>Goal (4):</b>	Create a system for continuous assessment of technology management effectiveness.
<b>Objective (1):</b>	Track all computers, network resources and peripherals from acquisition to retirement.

### **Direct Benefit to Teaching and Learning**

Accountability of all technology hardware resources is essential to ensuring that all students and staff have acceptable access to all resources.

### **Strategies**

- Evaluate and procure a dynamic asset management system. Conduct a complete initial inventory of all equipment.
- Reconcile discrepancies.
- Ensure all equipment is properly labeled; create labels for that equipment that is not labeled.

### **Assessments**

- System provides status reports of inventory discrepancies.
- Periodic inventories of equipment match asset management system.

## STRAND: ACCOUNTABILITY

<b>Goal (5):</b>	Improve district-wide equity in the integration of technology.
<b>Objective (1):</b>	Require all teachers to integrate technology into their lessons.

### Direct Benefit to Teaching and Learning

Teachers need access to Gold Seal technology lessons to provide quality instruction for their students.

### Strategies

- Design K-12 technology lessons in all content areas to support the curriculum and technology standards.

### Assessments

- Measure the number of Gold Seal technology lessons on CCPS Portal by content area. (10 technology lessons in every content in every grade level within five years)

*Timeline*  
*and*  
*Proposed Budget*

**STRAND: CURRICULUM**

Goal (1): The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies

Objective (1) Engage K-2 students with technology through the use of age appropriate devices.	Office of Primary Responsibility	Completion Date	Cost
a. Deploy one mobile cart of touch screen computing devices to each K-2 grade level to facilitate in room group discussion. <span style="color: red;">(support 1,1,)</span>	Manager, School Technology Support	2013	\$1,048,800

**STRAND: CURRICULUM**

Goal (1): The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies

Objective (2) Employ collaborative and creative technology tools to deliver curriculum.	Office of Primary Responsibility	Completion Date	Cost
a. Improve and enrich instruction through the Collaborative use of interactive whiteboards. <span style="color: red;">(support 8,4,d)</span>	Manager, Video Technology	2011	-0-
b. Integrate the use of document cameras and video/data projectors in classrooms.	Manager, Video Technology	2011	\$42,250
c. Deploy digital image/video camera for instruction. <span style="color: red;">(support 8,4,e)</span>	Manager, Video Technology	2011	\$234,000

**STRAND: CURRICULUM**

Goal (2): Promote learner engagement through technological collaboration.

Objective (1) Administrators will create communication venues with their staffs about school-related issues.	Office of Primary Responsibility	Completion Date	Cost
a. Administrators will create a blog to illicit staff discussion about a school-related issue.	Director of Schools	2010	-0-
b. Administrators will use survey tools to gather thoughts of their staff members on school-related issues.	Director of Schools	2011	-0-
c. Administrators will use the Information Delivery System (IDS) to discuss school needs with staff.	Director, School Improvement	2010	-0-

**STRAND: CURRICULUM**

Goal (3): Learners will be empowered to utilize effectively a variety of technologies to enhance creative and innovative thinking.

Objective (1) Provide the essential equipment and training to enable students to create video enhanced instructional projects.	Office of Primary Responsibility	Completion Date	Cost
a. Develop expectations for student video project development	Manager, Video Technology	2012	\$72,000
b. Develop instructional lessons which incorporate video production into the curriculum	Manager, Video Technology	2012	“ “
c. Design production kits to provide whole-class access to video production and editing equipment.	Manager, Video Technology	2012	“ “
d. Establish training lessons for students at various grade levels.	Manager, Video Technology	2012	“ “

**STRAND: CURRICULUM**

Goal (4) Integrate communication technologies to enhance instruction and engage learners.			
Objective (1) Increase student collaboration as an instructional method.	Office of Primary Responsibility	Completion Date	Cost
a. Collaborate using Web 2.0 tools to enrich instruction	Manager, Technology Integration	2010	-0-
b. Collaborate using online portals	Manager, Technology Integration	2010	-0-
c. Create a public display of best practice Web 2.0 lessons	Manager, Technology Integration	2011	-0-

**STRAND: CURRICULUM**

Goal (4) Integrate communication technologies to enhance instruction and engage learners.			
Objective (2) Deploy school site technology which allows video streaming to classrooms from cable television or local video sources.	Office of Primary Responsibility	Completion Date	Cost
a. Create a broadcast streaming station at each school	Manager, Video Technology	2012	\$183,800
b. Investigate available technologies for school-site broadcast streaming	Manager, Video Technology	2011	-0-
c. Determine internal bandwidth requirements	Manager, Video Technology	2011	-0-
d. Perform cost/benefit analysis, to include training and support	Manager, Video Technology	2011	-0-

**STRAND: CURRICULUM**

Goal (5) All learners will master technologies to learn effectively in real and virtual environments			
Objective (1) Expand the current online program by developing an online academy for high school students offering the core courses required for graduation from high school.	Office of Primary Responsibility	Completion Date	Cost
a. Develop and provide well-designed engaging Online courses for students that develop 21 <sup>st</sup> century skills along with required content proficiency.	Manager, Curriculum & Delivery	2010	-0-
b. Provide an online learning environment that provides access to current technology tools supporting online communication and collaboration activities for students including but not limited to WEB 2.0 tools.	Manager, Curriculum & Delivery	2010	\$35,000
c. Develop teaching and learning standards for online learning.	Manager, Curriculum & Delivery	2010	-0-

STRAND: CURRICULUM			
Goal (6) Technology will be integrated into instruction to promote problem solving and critical thinking by all learners.			
Objective (1) Student learning and achievement will be empowered through a systematic use of innovative technology tools.	Office of Primary Responsibility	Completion Date	Cost
a. Utilize technology resources to support the designed curriculum and desired assessment outcomes.	Manager, Technology Integration	Ongoing	-0-
b. Provide and offer a schedule of innovative K-12 lessons.	Manager, Technology Integration	Ongoing	-0-

STRAND: CURRICULUM			
Goal (7) All learners will have access to and training in applications which encourage problem solving and critical thinking			
Objective (1) Provide anytime/anywhere curriculum applications, both at school and home, for all students through a centralized program.	Office of Primary Responsibility	Completion Date	Cost
a. Purchase curriculum servers to enable students to access student resources 24/7.	Director of Technology	2013	-0-
b. Migrate curriculum software from school-based to enterprise. Implement curriculum web servers to deliver instructional resources through a web browser. These resources will be deployed so students will be able to access them from home or school regardless of computer platform. This will extend the classroom resources to accomplish anytime/anywhere learning.	Director of Technology	2013	-0-

**STRAND: CURRICULUM**

Goal (8) Instruct and encourage authentic problem solving and critical thinking using technology tools.			
Objective (1) Schools will determine a set of problems for student groups to examine and find solutions using a variety of technology tools.	Office of Primary Responsibility	Completion Date	Cost
a. Create a library of real-world problems for school/student selection.	Director, Curriculum & Instruction	2011	-0-
b. Develop models for teacher and student training.	Director, Curriculum & Instruction	2011	-0-
c. Implement a competitive grant process for the purchase of innovative technology tools to encourage implementation.	Director of Technology	2012	\$60,000

STRAND: CURRICULUM			
Goal (9) Learners will apply technology skills within engaging instructional activities to enhance learning.			
Objective (1) Develop models of instructional delivery which engage students.	Office of Primary Responsibility	Completion Date	Cost
a. The division of instruction, including instruction and technology, will design lessons which model student engagement and post examples on portal.	Director, Curriculum & Instruction Manager, Technology Integration	Yearly	-0-
b. Staff development and instructional specialists will provide training on using lessons focusing on student engagement.	Director, Curriculum & Instruction Director, Professional Development	Yearly	-0-
c. Teachers will deploy lessons focusing on student engagement in their classrooms.	Principals	Yearly	-0-

STRAND: CURRICULUM			
Goal (10) All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.			
Objective (1) Teachers and students are able to select appropriate research and presentation technologies.	Office of Primary Responsibility	Completion Date	Cost
a. Provide training for teachers and students to select research and presentation technologies appropriate for accomplishing 21 <sup>st</sup> Century tasks.	Director of Technology	Ongoing	-0-

**STRAND: CURRICULUM**

Goal (11) All learners will achieve established technology skill competencies which reflect their real-world needs.			
<b>Objective (1) All students meet a minimum level of competency of technology skills.</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Establish technology competencies by grade-level.	Director of Technology	2010	-0-
b. Embed technology competencies into the curriculum.	Director of Technology	2010	-0-

**STRAND: SUPPORT**

Goal (1): The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.			
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<b>Objective (1) Engage K-2 students with technology through the use of age appropriate devices.</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Deploy one mobile cart of touch screen Computing devices to each K-2 grade level to facilitate in room group instructions. (curriculum 1,1)	Manager, School Technology Support	2013	\$1,048,800

**STRAND: SUPPORT**

Goal (1): The learning environment will enhance creative and innovative thinking of students and staff through the use of current technologies.			
<b>Objective (2) Engage 3-12 students with technology through the use of age appropriate devices.</b>	Office of Primary Responsibility	Completion Date	Cost
a. Deploy one mobile cart of computing Devices to each 3-12 grade level to facilitate in-room group instruction.	Manager, School Technology Support	2012	\$2,800,000

**STRAND: SUPPORT**

Goal (2): All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.			
<b>Objective (1) Promote support by CCPS leadership to expanding the online learning opportunities with regard to needs and resources</b>	Office of Primary Responsibility	Completion Date	Cost
a. Implement an evaluation process for online learning.	Director of Technology	2011	-0-
b. Communicate to stakeholders successes, plans, and needs of the online learning program on an on-going basis.	Director of Technology	Yearly	-0-

**STRAND: SUPPORT**

Goal (2): All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.

Objective (2) Provide large group instruction for grades K-12, through the use of a mobile environment.	Office of Primary Responsibility	Completion Date	Cost
a. Implement wireless mobile computing environment school-wide.	Manager, Network Services	2014	\$750,000

**STRAND: SUPPORT**

Goal (2): All learners will have access to technology that enhances the creative environment and provides authentic real-world experiences.

Objective (3) Provide student storage space for classroom presentation and collaboration activities	Office of Primary Responsibility	Completion Date	Cost
a. Establish network applications and file storage for secure access.	Manager, Network Services	2010	-0-
b. Provide training and storage space maintenance plan.	Manager, Network Services	2010	-0-

**STRAND: SUPPORT**

Goal (3): The learning environment will encourage problem solving and critical thinking through the use of current technologies.			
Objective (1) Laptop web-based computing device for all teachers/administrators.	Office of Primary Responsibility	Completion Date	Cost
a. Deploy portable web-based computing devices to all teachers K-12.	Manager, School Technology Support	2012	\$1,702,000 (replacement CIP)

**STRAND: SUPPORT**

Goal (4): A variety of learning environments will be developed to ensure that all learners obtain essential technology skills.			
Objective (1) To provide technological centers within the classroom to encourage self directed learning through intellectual investigation on the internet.	Office of Primary Responsibility	Completion Date	Cost
a. Implementation of three computing devices per standard-sized 3-12 classroom to provide internet access and access to CCPS resources.	Manager, School Technology Support	2013	\$3,612,000

**STRAND: SUPPORT**

Goal (5): Essential technology tools will be made available to all learners to accomplish 21 <sup>st</sup> Century tasks.			
<b>Objective (1) Review emerging technologies to identify software/applications that will improve student and teacher success.</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Establish a committee that will meet at least twice a year to identify and recommend valuable software/application resources.	Applications Analyst	2010	-0-
b. Evaluate Web 2.0 (and beyond) applications	Applications Analyst	Ongoing	-0-
c. Upgrade to current versions of software/applications	Applications Analyst	Ongoing	School Operating Funds
d. Create an online forum area for committee members to discuss and review new software/applications throughout the year.	Applications Analyst	2010	-0-

**STRAND: SUPPORT**

Goal (6): All learners will have access to teaching and learning environment that encourage the use of Web 2.0 tools.			
<b>Objective (1) web 2.0 tools made available to students and teachers.</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Provide and support access to Collaborative learning tools such as but not limited to blogs, wikis, discussion boards, file exchange and synchronous applications for use in traditional face-to-face courses at all levels.	Director of Technology	2010	-0-

**STRAND: SUPPORT**

Goal (7): Ensure that all learners have access to technology-rich collaborative environments.			
Objective (1) Provide video conferencing functionality for the school division that will allow instructional enhancement and leadership collaboration.	Office of Primary Responsibility	Completion Date	Cost
a. Measure the interest in developing administrative teleconferencing capabilities	Manager, Video Technology	2010	-0-
b. Assess the need to provide teleconferencing capabilities which provide direct instruction between schools.	Manager, Video Technology	2010	-0-
c. Identify teleconferencing applications or equipment which allows secure connections between schools and sites outside of the school division.	Manager, Video Technology	2010	-0-
d. Develop teleconferencing procedures which assures network security. <span style="color: red;">(curriculum 1,2,a)</span>	Manager, Video Technology	2011	-0-
e. Assess bandwidth limitations at each elementary and secondary school, as well as, administrative buildings. <span style="color: red;">(curriculum 1,2,c)</span>	Manager, Video Technology	2011	-0-
f. Develop equipment plans that meet the needs of administrative, school to school and school to external site applications.	Manager, Video Technology	2012	\$58,000

**STRAND: SUPPORT**

Goal (7): Ensure that all learners have access to technology-rich collaborative environments.			
<b>Objective (2) Provide whole-class presentation technologies for all classroom spaces</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Identify classrooms which are under resourced.	Manager, Video Technology		
b. Develop solutions that fit the space requirements and frequency of need.	Manager, Video Technology		
c. Provide asset security solution	Manager, Video Technology		
d. Develop a plan for the purchase and support of presentation technologies.	Manager, Video Technology	2013	\$1,013,000

**STRAND: SUPPORT**

Goal (7): Ensure that all learners have access to technology-rich collaborative environments.			
<b>Objective (3) Promote access to online media-rich teaching resources within the classroom environments.</b>	<b>Office of Primary Responsibility</b>	<b>Completion Date</b>	<b>Cost</b>
a. Develop and/or provide instructional e-Learning objects for access by teachers and students at their point of need.	Manager, Curriculum Delivery	Ongoing	-0-

**STRAND: SUPPORT**

Goal (7): Ensure that all learners have access to technology-rich collaborative environments.			
Objective (4) Standardized classroom software and hardware to support teaching and learning.	Office of Primary Responsibility	Completion Date	Cost
a. Students and teachers routinely use standardized hardware and software to support the curriculum and technology standards.	Manager, Technology Integration	Ongoing	-0-
b. All classrooms should include a standard number of computing devices to support small and whole group instruction.	See Goal 8/Objective 4		
c. Projectors: Grade K-5 = one for every two rooms; Grade 6-8 = one installed per standard classroom; Grade 9-12 = one installed per standard classroom	See Goal 8/Objective 2		
d. Interactive Boards Grades K-12: Two interactive boards per school installed in common use labs	Manager, Video Technology	2011	\$460,000
e. Digital Cameras Grades K-12: Set of 15 digital cameras per school	Manager, Technology Integration	2011	\$234,000

**STRAND: SUPPORT**

Goal (8): Develop systems of information management and delivery to ensure the engagement of a variety of communities.

Objective (1) Simplify content management of school websites at the school level while maintaining a reflection of each individual school's climate and school spirit.	Office of Primary Responsibility	Completion Date	Cost
a. Procure and implement content management system for district and school web pages.	Manager, Web & Database Services	2011	\$172,800
b. Collaborate with Community Relations to ensure compliance.	Manager, Web & Database Services	Ongoing	

**STRAND: SUPPORT**

Goal (9): Obtain the necessary applications to ensure effective information security and technology management.

Objective (1) Monitor Active Directory in real time, with direct notification sent to administrators when changes occur, thereby ensuring system integrity and timely response to potential violations.	Office of Primary Responsibility	Completion Date	Cost
a. Evaluate and procure a management/security suite of products to ensure a safe and secure environment for student learning.	Manager, School Technology Support	2012	\$250,000

**STRAND: SUPPORT**

Goal (9): Obtain the necessary applications to ensure effective information security and technology management.			
Objective (2) Provide interoperability between Student Information System and other selected student information dependent applications.	Office of Primary Responsibility	Completion Date	Cost
a. Procure, implement and deploy required infrastructure, and software agents, to support Student/Interoperability Framework (SIF).	Manager, Web & Database Services	2013	\$205,000

**STRAND: SUPPORT**

Goal (9): Obtain the necessary applications to ensure effective information security and technology management.			
Objective (3) Ensure that CCPS has a centralized backup and archival strategy and a disaster recovery plan in place in order to meet the system's educational needs and state and federal mandated data retention policies.	Office of Primary Responsibility	Completion Date	Cost
a. Development and implementation of a Disaster recovery plan. Housing of backup data in separate locations to facilitate disaster recovery.	Manager, Network Services	2012	\$1,000,000

**STRAND: SUPPORT**

Goal (9): Obtain the necessary applications to ensure effective information security and technology management.			
Objective (4): Ensure any modifications made to software applications or network infrastructure configurations are properly documented and approved.	Office of Primary Responsibility	Completion Date	Cost
a. Determine district requirements, evaluate products and procure a change management system to meet requirements.	Manager, Network Services	2011	\$150,000

**STRAND: SUPPORT**

Goal (10): Provide instructional support applications that enhance teaching and learning.			
Objective (1) Provide a teacher portal containing pertinent student information, and provide for efficient and user friendly recording of student attendance.	Office of Primary Responsibility	Completion Date	Cost
a. Create or procure application that Interfaces with Student Information System.	Manager, Web & Database Services	2012	\$71,060

**STRAND: SUPPORT**

Goal (10): Provide instructional support applications that enhance teaching and learning.			
Objective (2) Provide secondary students a portal for course pre-registration.	Office of Primary Support	Completion Date	Cost
a. Create or procure course pre-registration application.	Manager, Web & Database Services	2012	-0-

**STRAND: SUPPORT**

Goal (10): Provide instructional support applications that enhance teaching and learning.			
Objective (3) Provide web portal with lesson plans from master teachers, to include videos of lessons being taught.	Office of Primary Support	Completion Date	Cost
a. Create or procure a content management system that would allow lesson sharing and review.	Manager, Network Services	2011	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (1): All learners will have access to and training in applications that enhance communication and encourage problem solving and critical thinking.

Objective (1) Administrators must plan in writing, either through the School Improvement Planning process or through a separate Technology Plan, a training schedule that includes opportunities for all staff members	Office of Primary Responsibility	Completion Date	Cost
a. An administrator will assess staff technology training needs each year.	Director of Schools	Ongoing	-0-
b. Each administrator must write a comprehensive plan that specifies types of technology training needed and work with the technology department to ensure training is provided.	Director of School Improvement	Yearly	-0-
c. The Chesterfield Informational Technology Expo (CITE) conference should be offered each year and administrators encouraged to require teachers and other staff members to attend.	Director of Technology	Yearly	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (1): All learners will have access to and training in applications that enhance communication and encourage problem solving and critical thinking.

Objective (2) Provide technology staff development to enhance communications and encourage problem solving and critical thinking.	Office of Primary Responsibility	Completion Date	Cost
a. Provide online workshops for teachers and administrators that demonstrate best practices as outlined in the Design for Excellence key measures.	Manager, Technology Integration	Ongoing	-0-
b. Provide an annual technology conference with sessions on problem solving and critical thinking	Director of Technology	Yearly	-0-
c. Provide technology-based staff development for support staff on current office tools, student information, communication tools, data layout and design techniques, global connections, and best workplace practices to learn to incorporate 21 <sup>st</sup> century tools for professional environments.	Manager, Technology Integration	Ongoing	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (2): All learners will master technologies to learn effectively in real and virtual environments.			
Objective (1) Provide professional development to develop a cadre of highly qualified online teachers.	Office of Primary Responsibility	Completion Date	Cost
a. Provide training to teachers in understanding instructional design pedagogy and using online technology tools.	Manager, Curriculum Delivery	Yearly	-0-
b. Develop and/or provide e-Learning objects and other resources for access by teachers at their point of need for professional development.	Manager, Curriculum Delivery Manager, Technology Integration	2011	-0-
c. Develop and offer an online teaching methods course for teachers online.	Manager, Curriculum Delivery	2011	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (3): All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.			
Objective (1): Administrators will become 21 <sup>st</sup> Century technology leaders through systematic training and uncompromising staff expectations.	Office of Primary Responsibility	Completion Date	Cost
a. Administrators will require teachers to use technology as a teaching tool, will require teachers to use the county adopted curricula and will evaluate teachers on technology application	Director of Schools	Ongoing	-0-
b. A Technology Leadership Academy will be offered each year to administrators to learn the use of technology as a 21 <sup>st</sup> Century tool.	Director of Technology	Yearly	\$50,000
c. The Chesterfield Informational Technology Expo (CITE) conference should be offered each year and administrators encouraged to require teachers and other staff members to attend.	Director of Technology	Yearly	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (3): All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.			
Objective (2) Create an online technology academy i <sup>3</sup> (Innovation, Imagination & Integration Academy) which is centered on instructional innovation and integration	Office of Primary Responsibility	Completion Date	Cost
a. Provide a virtual environment for all educators to download or view innovative and interactive lessons on curriculum or assessment topics to improve instruction for students.	Manager, Technology Integration	Yearly	-0-
b. Offer technology-based staff development on communication tools, data analysis, global connections, and best instructional practices for teachers and administrators to learn how to integrate 21 <sup>st</sup> century tools for instruction.	Manager, Technology Integration	Yearly	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (3): All learners will have the knowledge to select appropriate technology applications in order to accomplish 21 <sup>st</sup> Century tasks.			
Objective (3) Create video-based technology professional development that can be accessed online.	Office of Primary Responsibility	Completion Date	Cost
a. Determine goals for video-based technology training.	Manager, Video Technology Manager, Technology Integration	2010	-0-
b. Assess technical and instructional human resource requirements.	Manager, Video Technology Manager, Technology Integration	2010	-0-
c. Develop deployment methodology that allow home and school access.	Manager, Video Technology	2010	-0-
d. Create video based technology training	Manager, Video Technology	2010	-0-

**STRAND: PROFESSIONAL DEVELOPMENT**

Goal (4): All learners will achieve established technology skill competencies which reflect their real-world needs.

Objective (1) Establish a minimum number of teacher training hours for recertification in technology as a 21 <sup>st</sup> century tool.	Office of Primary Responsibility	Completion Date	Cost
<p>a. Provide technology training so that teachers can complete a minimum of 20 hours/20 points of technology integration training within a teacher recertification period (5 years) with non-repeating activities on curriculum content, instructional strategies, data-decision making and evaluation to support student achievement and instructional competency.</p>	<p>Manager, Technology Integration</p>	<p>Yearly</p>	<p>-0-</p>

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STRAND: PROFESSIONAL DEVELOPMENT			
Goal (5): Promote learner engagement through technological collaboration.			
Objective (1) Promote understanding of student academic success through interpretation of test scores and other data.	Office of Primary Responsibility	Completion Date	Cost
a. Provide data analysis training for teachers and administrators through IDS.	Director of School Improvement	2010	-0-

STRAND: PROFESSIONAL DEVELOPMENT			
Goal (6): Provide all learners access to asynchronous technology professional development.			
Objective (1) Provide online learning modules that demonstrate how software/applications/tools can be used effectively.	Office of Primary Responsibility	Completion Date	Cost
a. Create, as a standard, that online Learning modules are developed in conjunction with new tools/products.	Director of Technology	Ongoing	-0-

**STRAND: ACCOUNTABILITY**

**Goal (1): Develop assessments for all learners that measures technology skills in the creative and innovative process**

Objective (1) Assess student learning using the district-wide technology standards. Strategies:	Office of Primary Responsibility	Completion Date	Cost
a. Assess students in grades 3, 4 and 5 in keyboarding	Manager, Technology Integration	Yearly	-0-
b. Assess eighth grade students on their knowledge of technology applications, problem solving and critical thinking based on the NETS standards and P21 skills	Manager, Technology Integration	Yearly	\$120,000

**STRAND: ACCOUNTABILITY**

**Goal (2): Use communication vehicles that provide access to assessments of learning and performance**

Objective (1) Use a variety of delivery methods to inform various publics about outcomes in student learning and performance Strategies:	Office of Primary Responsibility	Completion Date	Cost
a. Deploy online parent/student portal for regular communication with teacher	Director of Technology	Ongoing	Operating Funds
b. Compile information in State and Federal reporting categories which indicate progress in student learning and performance	Manager, Web & Database Services	Ongoing	-0-
c. Provide applications which allow benchmark testing to measure formative student learning and performance	Manager, Web & Database Services	Ongoing	-0-

**STRAND: ACCOUNTABILITY**

Goal (3): Learners will assess data sources to develop effective and individualized instruction

Objective (1) Provide training to teachers and administrators in the interpretation data to individualize instruction Strategies:	Office of Primary Responsibility	Completion Date	Cost
a. Provide training to teachers in IDS	Manager, Technology Integration	Ongoing	-0-
b. Provide individualized training to administrators in IDS	Application Analyst	Ongoing	-0-

**STRAND: ACCOUNTABILITY**

Goal (4): Create a system for continuous assessment of technology management effectiveness

Objective (1) Track all computers, network resources and peripherals from acquisition to retirement Strategies:	Office of Primary Responsibility	Completion Date	Cost
a. Evaluate and procure a dynamic asset management system. Conduct a complete initial inventory of all equipment	Manager, School Technology Support	2010	\$250,000
b. Reconcile discrepancies	Manager, School Technology Support	Ongoing	-0-
c. Ensure all equipment is properly labeled; create labels for that equipment that is not labeled	Manager, School Technology Support	Ongoing	-0-

**STRAND: ACCOUNTABILITY**

Goal (5): Improve district-wide equity in the integration of technology

Objective (1) Require all teachers to integrate technology into their lessons	Office of Primary Responsibility	Completion Date	Cost
a. Design K-12 technology lessons in all content areas to support the curriculum and technology standards	Manager, Technology Integration	Ongoing	-0-

# *Appendix A*

## *Design for Excellence Alignment*

# Design of Excellence: Technology Master Plan (TMP) Alignment

Design of Excellence Goals	TMP Goals
<p><b>Goal 1.</b> Academic excellence for all students</p>	<ul style="list-style-type: none"> <li>• Curriculum – Goal 1 – Objective 1</li> <li>• Curriculum – Goal 3 – Objective 1</li> <li>• Curriculum – Goal 4 – Objective 1</li> <li>• Curriculum – Goal 5 – Objective 1</li> <li>• Curriculum – Goal 6 – Objective 1</li> <li>• Curriculum – Goal 7 – Objective 1</li> <li>• Curriculum – Goal 8 – Objective 1</li> <li>• Curriculum – Goal 9 – Objective 1</li> <li>• Curriculum – Goal 10 – Objective 1</li> <li>• Curriculum – Goal 11 – Objective 1</li> <li>• Accountability – Goal 1 – Objective 1</li> <li>• Accountability – Goal 2 – Objective 1</li> </ul>
<p><b>Goal 2.</b> Safe, supportive and nurturing Learning environments</p>	<ul style="list-style-type: none"> <li>• Curriculum – Goal 1 – Objective 2</li> <li>• Curriculum – Goal 4 – Objective 2</li> <li>• Support – Goal 1 – Objective 1</li> <li>• Support – Goal 1 – Objective 2</li> <li>• Support – Goal 1 – Objective 3</li> <li>• Support – Goal 2 – Objective 2</li> <li>• Support – Goal 4 – Objective 1</li> <li>• Support – Goal 5 – Objective 1</li> <li>• Support – Goal 7 – Objective 1</li> <li>• Support – Goal 8 – Objective 2</li> <li>• Support – Goal 8 – Objective 4</li> </ul>

Design of Excellence Goals	TMP Goals
<p><b>Goal 3.</b>            Knowledgeable and competent            Teachers and administrators</p>	<ul style="list-style-type: none"> <li>● Curriculum – Goal 2 – Objective 1</li> <li>● Professional Development – Goal 1 – Objective 1</li> <li>● Professional Development – Goal 1 – Objective 2</li> <li>● Professional Development – Goal 2 – Objective 1</li> <li>● Professional Development – Goal 4 – Objective 1</li> <li>● Professional Development – Goal 4 – Objective 2</li> <li>● Professional Development – Goal 4 – Objective 3</li> <li>● Professional Development – Goal 5 – Objective 1</li> <li>● Professional Development – Goal 6 – Objective 1</li> <li>● Professional Development – Goal 7 – Objective 1</li> <li>● Accountability – Goal 3 – Objective 1</li> <li>● Accountability – Goal 5 – Objective 1</li> <li>● Support – Goal 2 – Objective 1</li> <li>● Support – Goal 8 – Objective 3</li> <li>● Support – Goal 11 – Objective 1</li> </ul>
<p><b>Goal 4.</b>            Community investment in schools</p>	<ul style="list-style-type: none"> <li>● Accountability – Goal 2 – Objective 1</li> </ul>
<p><b>Goal 5.</b>            Effective and efficient system            management</p>	<ul style="list-style-type: none"> <li>● Accountability – Goal 4 – Objective 1</li> <li>● Support – Goal 3 – Objective 1</li> <li>● Support – Goal 6 – Objective 1</li> <li>● Support – Goal 8 – Objective 1</li> <li>● Support – Goal 9 – Objective 1</li> <li>● Support – Goal 10 – Objective 1</li> <li>● Support – Goal 10 – Objective 2</li> <li>● Support – Goal 10 – Objective 3</li> <li>● Support – Goal 10 – Objective 4</li> <li>● Support – Goal 11 – Objective 2</li> <li>● Support – Goal 11 – Objective 3</li> </ul>

*Appendix B*  
*Staff Survey*

# Technology Survey 2008-09

The Department of Technology is preparing to write the next Technology Master Plan. This Plan drives the spending and actions in technology for the next five years. Because your views are important, we would appreciate your taking the time to complete this survey. Results of the survey will guide decisions made in the master plan. The results will also be published with the Technology Master Plan.

Thank you for your time and support.

Department of Technology

**For items 1-15, rate your skill level in using the following:**

## 1. Word processing

No experience       Beginner       Intermediate       Expert

## 2. Publishing programs

No Experience       Beginner       Intermediate       Expert

## 3. Multimedia

No Experience       Beginner       Intermediate       Expert

## 4. Graphic organizers

No Experience       Beginner       Intermediate       Expert

## 5. Spreadsheets

No Experience       Beginner       Intermediate       Expert

## 6. Schools' network resources i.e. saving to server, intranet

No Experience       Beginner       Intermediate       Expert

## 7. Locating, accessing & managing educational technology resources

No Experience       Beginner       Intermediate       Expert

## 8. Communicating with parents and community members i.e. email, Edline, electronic newsletter

No Experience       Beginner       Intermediate       Expert

## 9. Communicating with colleagues through participation in electronic professional communities i.e. Wikis, blogs, podcasting

No Experience       Beginner       Intermediate       Expert

## Technology Survey 2008-09

### 10. Technology to develop students' higher order thinking skills

No Experience       Beginner       Intermediate       Expert

### 11. Technology to have students work in teams and collaborate on curriculum related projects

No Experience       Beginner       Intermediate       Expert

### 12. Applying best practices technology related research when designing rigorous curriculum lessons

No Experience       Beginner       Intermediate       Expert

### 13. Meeting the learning needs of special needs students through the use of technology

No Experience       Beginner       Intermediate       Expert

### 14. Knowledge or experience you have managing student assessment and holding students accountable for their learning when they are using technology

No Experience       Beginner       Intermediate       Expert

### 15. Knowledge or experience you have with aspects of assessment and technology such as electronic portfolios, project based learning, expeditionary learning

No Experience       Beginner       Intermediate       Expert

For items 16-22, please answer the following:

### 16. How often do students in your class(es) use the following technologies:

#### Computers and peripherals

Never       Seldom       Frequently       Every class/every day

### 17. Productivity tools such as MS office or Scholastic Keys

Never       Seldom       Frequently       Every class/every day

### 18. Multimedia tools

Never       Seldom       Frequently       Every class/every day

### 19. Online research, search engines

Never       Seldom       Frequently       Every class/every day

## Technology Survey 2008-09

### 20. Visualization/graphic organizer software

Never       Seldom       Frequently       Every class/every day

### 21. Data sets

Never       Seldom       Frequently       Every class/every day

### 22. Simulations or modeling

Never       Seldom       Frequently       Every class/every day

**Items 23-49 are ranking items. Please indicate your amount of agreement with the following statements:**

**23. My available classroom technology (hardware/software) allows students to work on assignments they direct themselves versus those that are teacher directed.**

Strongly disagree     Disagree       No opinion/does not apply     Agree       Strongly agree

**24. My available classroom technology (hardware/software) supports collaboration and creativity.**

Strongly disagree     Disagree       No opinion/does not apply     Agree       Strongly agree

**25. My available classroom technology (hardware/software) promotes problem solving and small group work.**

Strongly disagree     Disagree       No opinion/does not apply     Agree       Strongly agree

**26. All schools in the district at the same grade level have about the same access to technology.**

Strongly disagree     Disagree       No opinion/does not apply     Agree       Strongly agree

**27. Effective use of technology is embedded in our district standards.**

Strongly disagree     Disagree       No opinion/does not apply     Agree       Strongly agree

## Technology Survey 2008-09

**28. The online and electronic assessments (ex: benchmark, Flanagan, etc.) are used to effectively measure student preparedness to live, learn, and work in the 21st century.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**29. The current network infrastructure provides adequate connectivity to achieve my goals in the classroom.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**30. Chesterfield County Public Schools provides an adequate number of computers for student use.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**31. Chesterfield County Public Schools provides adequate network resources to actively engage my students.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**32. I receive sufficient training that allows me to be comfortable using the software available to me.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**33. The software at my school enhances classroom instruction.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**34. The software at my school motivates students.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

## Technology Survey 2008-09

**35. The software at my school helps students achieve 21st century learning skills.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**36. The online gradebook program meets my needs.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**37. Edline is an effective secondary school communication tool and has had a positive impact on student performance.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**38. Access to my students' prior standardized test scores and other academic history information would have an impact on how I design lessons.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**39. The district's student information system meets my needs for inputting and tracking student attendance data.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**40. The district's student information system is user friendly.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**41. I consider having a single source from which to retrieve all the district, school, and student information that I need to perform my job function to be an important asset.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**42. I often use a video/data projector for instruction.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

## Technology Survey 2008-09

**43. Video/data projection systems are available to meet my needs for my instructional delivery plan.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**44. I incorporate video clips into my instructional delivery i.e. United Streaming.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**45. Students taking online courses can receive at least the same quality instruction as in a traditional face-to-face course.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**46. It is important that CCPS provide opportunities for our students to take online courses before they graduate from high school.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**47. I believe the master schedule should accommodate students taking online courses in CCPS.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**48. I believe I am qualified to teach an online course.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

**49. I consider providing e-Learning opportunities in the future for CCPS students and staff to be an important technology service.**

Strongly disagree    Disagree    No opinion/does not apply    Agree    Strongly agree

## Technology Survey 2008-09

**50. My position is best described as:**

- Elementary school teacher
- Middle school teacher
- High school teacher
- School Administrator
- Support Staff
- Central Office Administrator

**51. I have the following years of experience:**

- 0-5
- 6-10
- 11-15
- >15

*Appendix C*

*Survey Results*

PERSONAL  
SKILLS

Technology Survey 2008-09 TOTAL RESPONSES		
For items 1-15, rate your skill level in using the following: 1. Word processing		
Answer Options	Response Frequency	Response Count
No experience	0.3%	4
Beginner	2.7%	35
Intermediate	43.8%	568
Expert	53.2%	691
<i>answered question</i>		1298
<i>skipped question</i>		1

Technology Survey 2008-09		
2. Publishing programs		
Answer Options	Response Frequency	Response Count
No Experience	15.5%	200
Beginner	28.7%	371
Intermediate	44.3%	573
Expert	11.6%	150
<i>answered question</i>		1294
<i>skipped question</i>		5

Technology Survey 2008-09		
3. Multimedia		
Answer Options	Response Frequency	Response Count
No Experience	7.1%	91
Beginner	30.4%	391
Intermediate	52.0%	669
Expert	10.6%	136
<i>answered question</i>		1287
<i>skipped question</i>		12

PERSONAL SKILLS-continued

Technology Survey 2008-09		
4. Graphic organizers		
Answer Options	Response Frequency	Response Count
No Experience	10.3%	132
Beginner	28.5%	367
Intermediate	46.2%	594
Expert	15.0%	193
<i>answered question</i>		1286
<i>skipped question</i>		13

Technology Survey 2008-09		
5. Spreadsheets		
Answer Options	Response Frequency	Response Count
No Experience	4.9%	63
Beginner	34.8%	444
Intermediate	48.9%	625
Expert	11.4%	145
<i>answered question</i>		1277
<i>skipped question</i>		22

Technology Survey 2008-09		
6. Schools' network resources i.e. saving to server, intranet		
Answer Options	Response Frequency	Response Count
No Experience	1.7%	22
Beginner	13.5%	173
Intermediate	47.7%	613
Expert	37.2%	478
<i>answered question</i>		1286
<i>skipped question</i>		13

PERSONAL SKILLS-continued

Technology Survey 2008-09		
7. Locating, accessing & managing educational technology resources		
Answer Options	Response Frequency	Response Count
No Experience	2.8%	36
Beginner	18.0%	231
Intermediate	56.8%	727
Expert	22.3%	286
<i>answered question</i>		1280
<i>skipped question</i>		19

Technology Survey 2008-09		
8. Communicating with parents and community members i.e. email, Edline, electronic newsletter		
Answer Options	Response Frequency	Response Count
No Experience	2.6%	33
Beginner	9.7%	122
Intermediate	45.2%	571
Expert	42.5%	536
<i>answered question</i>		1262
<i>skipped question</i>		37

Technology Survey 2008-09		
9. Communicating with colleagues through participation in electronic professional communities i.e. Wikis, blogs, podcasting		
Answer Options	Response Frequency	Response Count
No Experience	33.0%	424
Beginner	33.5%	431
Intermediate	26.6%	342
Expert	6.9%	89
<i>answered question</i>		1286
<i>skipped question</i>		13

PERSONAL SKILLS-continued

Technology Survey 2008-09		
10. Technology to develop students' higher order thinking skills		
Answer Options	Response Frequency	Response Count
No Experience	10.5%	133
Beginner	27.4%	347
Intermediate	50.9%	644
Expert	11.2%	142
<i>answered question</i>		1266
<i>skipped question</i>		33

Technology Survey 2008-09		
11. Technology to have students work in teams and collaborate on curriculum related projects		
Answer Options	Response Frequency	Response Count
No Experience	15.8%	200
Beginner	31.3%	397
Intermediate	42.2%	535
Expert	10.7%	135
<i>answered question</i>		1267
<i>skipped question</i>		32

Technology Survey 2008-09		
12. Applying best practices technology related research when designing rigorous curriculum lessons		
Answer Options	Response Frequency	Response Count
No Experience	14.7%	185
Beginner	32.0%	404
Intermediate	42.0%	530
Expert	11.3%	142
<i>answered question</i>		1261
<i>skipped question</i>		38

PERSONAL SKILLS-continued

Technology Survey 2008-09		
13. Meeting the learning needs of special needs students through the use of technology		
Answer Options	Response Frequency	Response Count
No Experience	18.2%	230
Beginner	34.5%	436
Intermediate	38.1%	481
Expert	9.2%	116
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
14. Knowledge or experience you have managing student assessment and holding students accountable for their learning when they are using technology		
Answer Options	Response Frequency	Response Count
No Experience	13.8%	173
Beginner	31.6%	395
Intermediate	43.4%	543
Expert	11.1%	139
<i>answered question</i>		1250
<i>skipped question</i>		49

Technology Survey 2008-09		
15. Knowledge or experience you have with aspects of assessment and technology such as electronic portfolios, project based learning, expeditionary learning		
Answer Options	Response Frequency	Response Count
No Experience	29.5%	376
Beginner	36.4%	464
Intermediate	28.2%	360
Expert	6.0%	76
<i>answered question</i>		1276
<i>skipped question</i>		23

STUDENT USE

Technology Survey 2008-09		
For items 16-22, please answer the following: 16. How often do students in your class(es) use the following technologies: Computers and peripherals		
Answer Options	Response Frequency	Response Count
Never	6.9%	83
Seldom	29.8%	360
Frequently	46.4%	561
Every class/every day	16.9%	204
<i>answered question</i>		1208
<i>skipped question</i>		91

Technology Survey 2008-09		
17. Productivity tools such as MS office or Scholastic Keys		
Answer Options	Response Frequency	Response Count
Never	28.9%	349
Seldom	36.7%	442
Frequently	28.9%	349
Every class/every day	5.5%	66
<i>answered question</i>		1206
<i>skipped question</i>		93

Technology Survey 2008-09		
18. Multimedia tools		
Answer Options	Response Frequency	Response Count
Never	17.9%	215
Seldom	44.1%	531
Frequently	33.1%	398
Every class/every day	4.9%	59
<i>answered question</i>		1203
<i>skipped question</i>		96

## STUDENT USE-continued

Technology Survey 2008-09		
19. Online research, search engines		
Answer Options	Response Frequency	Response Count
Never	16.7%	201
Seldom	36.4%	438
Frequently	41.2%	496
Every class/every day	5.7%	69
<i>answered question</i>		1204
<i>skipped question</i>		95

Technology Survey 2008-09		
20. Visualization/graphic organizer software		
Answer Options	Response Frequency	Response Count
Never	26.7%	321
Seldom	47.5%	572
Frequently	23.8%	287
Every class/every day	2.0%	24
<i>answered question</i>		1204
<i>skipped question</i>		95

Technology Survey 2008-09		
21. Data sets		
Answer Options	Response Frequency	Response Count
Never	44.9%	536
Seldom	42.0%	501
Frequently	12.2%	146
Every class/every day	0.8%	10
<i>answered question</i>		1193
<i>skipped question</i>		106

## STUDENT USE - continued

Technology Survey 2008-09		
22. Simulations or modeling		
Answer Options	Response Frequency	Response Count
Never	35.4%	424
Seldom	40.3%	482
Frequently	21.6%	258
Every class/every day	2.8%	33
<i>answered question</i>		1197
<i>skipped question</i>		102

TECHNOLOGY BELIEFS

Technology Survey 2008-09		
Items 23-49 are ranking items. Please indicate your amount of agreement with the following statements: 23. My available classroom technology (hardware/software) allows students to work on assignments they direct themselves versus those that are teacher directed.		
Answer Options	Response Frequency	Response Count
Strongly disagree	17.6%	220
Disagree	25.1%	313
No opinion/does not apply	26.7%	334
Agree	25.6%	320
Strongly agree	5.0%	62
<i>answered question</i>		1249
<i>skipped question</i>		50

Technology Survey 2008-09		
24. My available classroom technology (hardware/software) supports collaboration and creativity.		
Answer Options	Response Frequency	Response Count
Strongly disagree	15.5%	194
Disagree	21.9%	273
No opinion/does not apply	22.8%	285
Agree	34.2%	427
Strongly agree	5.6%	70
<i>answered question</i>		1249
<i>skipped question</i>		50

Technology Survey 2008-09		
25. My available classroom technology (hardware/software) promotes problem solving and small group work.		
Answer Options	Response Frequency	Response Count
Strongly disagree	16.1%	201
Disagree	23.7%	296
No opinion/does not apply	25.9%	323
Agree	29.6%	370
Strongly agree	4.7%	59
<i>answered question</i>		1249
<i>skipped question</i>		50

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
26. All schools in the district at the same grade level have about the same access to technology.		
Answer Options	Response Frequency	Response Count
Strongly disagree	27.5%	347
Disagree	32.2%	407
No opinion/does not apply	23.0%	291
Agree	15.0%	189
Strongly agree	2.3%	29
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
27. Effective use of technology is embedded in our district standards.		
Answer Options	Response Frequency	Response Count
Strongly disagree	6.1%	77
Disagree	19.1%	242
No opinion/does not apply	17.2%	217
Agree	52.5%	663
Strongly agree	5.1%	65
<i>answered question</i>		1264
<i>skipped question</i>		35

Technology Survey 2008-09		
28. The online and electronic assessments (ex: benchmark, Flanagan, etc.) are used to effectively measure student preparedness to live, learn, and work in the 21st century.		
Answer Options	Response Frequency	Response Count
Strongly disagree	9.5%	120
Disagree	19.9%	252
No opinion/does not apply	34.3%	434
Agree	32.9%	416
Strongly agree	3.4%	43
<i>answered question</i>		1265
<i>skipped question</i>		34

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
29. The current network infrastructure provides adequate connectivity to achieve my goals in the classroom.		
Answer Options	Response Frequency	Response Count
Strongly disagree	10.5%	131
Disagree	27.2%	340
No opinion/does not apply	19.0%	238
Agree	40.2%	503
Strongly agree	3.1%	39
<i>answered question</i>		1251
<i>skipped question</i>		48

Technology Survey 2008-09		
30. Chesterfield County Public Schools provides an adequate number of computers for student use.		
Answer Options	Response Frequency	Response Count
Strongly disagree	25.2%	319
Disagree	38.1%	483
No opinion/does not apply	8.3%	105
Agree	26.2%	332
Strongly agree	2.3%	29
<i>answered question</i>		1268
<i>skipped question</i>		31

Technology Survey 2008-09		
31. Chesterfield County Public Schools provides adequate network resources to actively engage my students.		
Answer Options	Response Frequency	Response Count
Strongly disagree	10.1%	127
Disagree	25.4%	320
No opinion/does not apply	19.4%	245
Agree	42.6%	537
Strongly agree	2.5%	32
<i>answered question</i>		1261
<i>skipped question</i>		38

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
32. I receive sufficient training that allows me to be comfortable using the software available to me.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.7%	47
Disagree	19.0%	242
No opinion/does not apply	7.1%	91
Agree	59.9%	763
Strongly agree	10.3%	131
<i>answered question</i>		1274
<i>skipped question</i>		25

Technology Survey 2008-09		
33. The software at my school enhances classroom instruction.		
Answer Options	Response Frequency	Response Count
Strongly disagree	2.8%	35
Disagree	10.6%	134
No opinion/does not apply	19.9%	251
Agree	60.1%	758
Strongly agree	6.6%	83
<i>answered question</i>		1261
<i>skipped question</i>		38

Technology Survey 2008-09		
34. The software at my school motivates students.		
Answer Options	Response Frequency	Response Count
Strongly disagree	2.5%	31
Disagree	13.1%	165
No opinion/does not apply	25.6%	322
Agree	52.9%	667
Strongly agree	6.0%	75
<i>answered question</i>		1260
<i>skipped question</i>		39

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
35. The software at my school helps students achieve 21st century learning skills.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.3%	42
Disagree	13.2%	167
No opinion/does not apply	21.8%	275
Agree	55.8%	704
Strongly agree	5.9%	74
<i>answered question</i>		1262
<i>skipped question</i>		37

Technology Survey 2008-09		
36. The online gradebook program meets my needs.		
Answer Options	Response Frequency	Response Count
Strongly disagree	1.1%	14
Disagree	5.1%	64
No opinion/does not apply	24.8%	312
Agree	46.9%	589
Strongly agree	22.1%	278
<i>answered question</i>		1257
<i>skipped question</i>		42

Technology Survey 2008-09		
37. Edline is an effective secondary school communication tool and has had a positive impact on student performance.		
Answer Options	Response Frequency	Response Count
Strongly disagree	0.9%	11
Disagree	4.8%	61
No opinion/does not apply	37.4%	474
Agree	33.8%	428
Strongly agree	23.2%	294
<i>answered question</i>		1268
<i>skipped question</i>		31

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
38. Access to my students' prior standardized test scores and other academic history information would have an impact on how I design lessons.		
Answer Options	Response Frequency	Response Count
Strongly disagree	1.3%	17
Disagree	8.2%	104
No opinion/does not apply	33.0%	417
Agree	43.3%	547
Strongly agree	14.1%	178
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
39. The district's student information system meets my needs for inputting and tracking student attendance data.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.2%	41
Disagree	11.1%	140
No opinion/does not apply	43.5%	550
Agree	37.7%	476
Strongly agree	4.4%	56
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
40. The district's student information system is user friendly.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.5%	44
Disagree	14.2%	179
No opinion/does not apply	36.9%	465
Agree	42.3%	533
Strongly agree	3.2%	40
<i>answered question</i>		1261
<i>skipped question</i>		38

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
41. I consider having a single source from which to retrieve all the district, school, and student information that I need to perform my job function to be an important asset.		
Answer Options	Response Frequency	Response Count
Strongly disagree	0.2%	3
Disagree	2.3%	29
No opinion/does not apply	19.9%	252
Agree	58.4%	740
Strongly agree	19.2%	244
<i>answered question</i>		1268
<i>skipped question</i>		31

Technology Survey 2008-09		
42. I often use a video/data projector for instruction.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.9%	49
Disagree	16.5%	208
No opinion/does not apply	19.2%	243
Agree	33.1%	418
Strongly agree	27.3%	345
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
43. Video/data projection systems are available to meet my needs for my instructional delivery plan.		
Answer Options	Response Frequency	Response Count
Strongly disagree	8.9%	112
Disagree	19.5%	245
No opinion/does not apply	17.9%	225
Agree	36.2%	455
Strongly agree	17.6%	221
<i>answered question</i>		1258
<i>skipped question</i>		41

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
44. I incorporate video clips into my instructional delivery i.e. United Streaming.		
Answer Options	Response Frequency	Response Count
Strongly disagree	6.0%	76
Disagree	17.6%	223
No opinion/does not apply	23.4%	296
Agree	37.4%	473
Strongly agree	15.5%	196
<i>answered question</i>		1264

Technology Survey 2008-09		
45. Students taking online courses can receive at least the same quality instruction as in a traditional face-to-face course.		
Answer Options	Response Frequency	Response Count
Strongly disagree	13.9%	175
Disagree	23.8%	300
No opinion/does not apply	43.9%	554
Agree	16.1%	203
Strongly agree	2.5%	31
<i>answered question</i>		1263
<i>skipped question</i>		36

Technology Survey 2008-09		
46. It is important that CCPS provide opportunities for our students to take online courses before they graduate from high school.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.9%	50
Disagree	13.1%	167
No opinion/does not apply	25.3%	322
Agree	44.8%	570
Strongly agree	12.7%	162
<i>answered question</i>		1271
<i>skipped question</i>		28

TECHNOLOGY BELIEFS - continued

Technology Survey 2008-09		
47. I believe the master schedule should accommodate students taking online courses in CCPS.		
Answer Options	Response Frequency	Response Count
Strongly disagree	3.5%	44
Disagree	12.7%	161
No opinion/does not apply	33.6%	427
Agree	40.1%	509
Strongly agree	10.2%	129
<i>answered question</i>		1270
<i>skipped question</i>		29

Technology Survey 2008-09		
48. I believe I am qualified to teach an online course.		
Answer Options	Response Frequency	Response Count
Strongly disagree	10.5%	133
Disagree	22.4%	282
No opinion/does not apply	33.1%	418
Agree	22.8%	287
Strongly agree	11.2%	141
<i>answered question</i>		1261
<i>skipped question</i>		38

Technology Survey 2008-09		
49. I consider providing e-Learning opportunities in the future for CCPS students and staff to be an important technology service.		
Answer Options	Response Frequency	Response Count
Strongly disagree	2.4%	30
Disagree	9.3%	118
No opinion/does not apply	24.7%	314
Agree	47.9%	608
Strongly agree	15.7%	199
<i>answered question</i>		1269
<i>skipped question</i>		30