

SWOT Analysis Template for Technology Planning Needs Assessment
What is the current reality in our school?

ESSENTIAL CONDITION ONE: EFFECTIVE INSTRUCTIONAL USES OF TECHNOLOGY EMBEDDED IN STANDARDS-BASED, STUDENT-CENTERED LEARNING

ISTE Definition: Use of information and communication technology (ICT) to facilitate engaging approaches to learning.

Guiding Questions:

- *How is technology being used in our school? How frequently is it being used? By whom? For what purposes?*
- *To what extent is student technology use targeted toward student achievement of the Georgia Learning Standards (GPSs, QCCs)?*
- *To what extent is student technology use aligned to research-based, best practices that are most likely to support student engagement, deep understanding of content, and transfer of knowledge? Is day-to-day instruction aligned to research-based best practices? (See Creighton Chapters 5, 7)*

Strengths

- Teachers at Water Creek Elementary use technology on a daily basis:
 - For administrative purposes, technology (CSIS) is used to submit and track attendance (daily use.)
 - Teachers and staff use e-mail as the primary for of intra-school communication (daily use.)
 - Weekly lesson plans are posted online through OnCourse Systems (weekly use.)
- Word Processing software is utilized for development of printable resources and standards-based assessments.
- Presentation software, (PowerPoint) is used by many staff members for standards-based presentations.
- Approximately half of the third grade students have the opportunity to utilize basic productivity tools (Word and PowerPoint.)
- Teachers are required to use the iRespond system for district-wide benchmark assessments and check-points.
- Teachers frequently incorporate standard-based, online video clips into their lessons (United Streaming, BrainPop, etc.)
- Teachers access Promethean Planet to locate and utilize curriculum-based flipcharts.

Weaknesses

- Technology usage is primarily used to facilitate lower-order thinking (knowledge and comprehension.)
- Use of technology is usually embedded in teacher-centered, direct instruction.
- While teacher use of technology occurs daily, student use of technology is very limited.
- When students do have the opportunity to utilize technology, it is typically for productivity purposes, or viewing websites.
- Approximately one-third of third grade teachers utilize instructional software in the classroom. Of that, all software usage is limited to drill-and-practice type programs.
- Use of iRespond system is generally limited to the district-required benchmark assessments and teachers rarely use the iRespond data-analysis options to review the results.
- Blogs, which were initially slated to begin this year, have rarely, if ever been set-up.

Summary /Recommendations

Without exception, technology is utilized by the teachers and staff at Water Creek Elementary Elementary. Unfortunately, that

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technology is generally being used for administrative and basic productivity purposes. While it is definite progress for technology to be integrated into instruction, when it is integrated, it is primarily in the form of direct, whole group instruction. The definite trend at Water Creek Elementary is growth in comfort level with technology. The comfort level with the iRespond system seems to be increasing as teachers gain more and more experience on district-level assessments. However, teacher usage of this system tends to be limited to mandated assessments that have already been created. Teachers are becoming more comfortable with locating and using shared resources for instruction (Promethean Planet flipcharts, online PowerPoints, etc.). However, again, these resources are geared more toward the lower-levels of Bloom's Taxonomy and come in the form of teacher-centered instruction. Generally speaking, students are not having the opportunity to be engaged in learning experiences that maximize the potential of the technology. While the student comfort level with technology is increasing, their usage is incredibly limited. It is great to see that the technology is being utilized to increase efficiency, however, in teaching, effectiveness is far more significant. Teachers need to see what effective technology integration looks like in the classroom. Teachers need training, support, and follow-up on maximizing the impact of the extensive resources available.

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ESSENTIAL CONDITION TWO: Shared Vision

ISTE Definition: Proactive leadership in developing a shared vision for educational technology among school personnel, students, parents, and the community.

Guiding Questions:

- *Is there an official vision for technology use in the district/school? Is it aligned to research-best practices? Is it aligned to state and national visions? Are teachers, administrators, parents, students, and other community members aware of the vision?*
- *To what extent do teachers, administrators, parents, students, and other community members have a vision for how technology can be used to enhance student learning? What do they believe about technology and what types of technology uses we should encourage in the future? Are their visions similar or different? To what extent are their beliefs about these ideal, preferred technology uses in the future aligned to research and best practice?*
- *To what extent do educators see technology as critical for improving student achievement of the GPS/QCCs? To preparing tomorrow's workforce? For motivating digital-age learners?*
- *What strategies have been deployed to date to create a research-based shared vision?*
- *What needs to be done to achieve broad-scale adoption of a research-based vision for technology use that is likely to lead to improved student achievement?*

Strengths

- There is a comprehensive district vision for technology.
- The Cobb County School District's Technology Plan aligns with the National Technology Plan.
- Technology standards are embedded in the Georgia Performance Standards and are required grading components for each nine week period, in third grade.
- The administration at Water Creek Elementary encourages teacher use of technology and has an evident desire to increase usage and maximize the impact.
- Many teachers believe there is a need for technology in the classrooms and have a desire to grow in their technology usage.

Weaknesses

- Water Creek Elementary lacks an concrete technology vision and plan
- The technology vision is rarely, if ever, referenced to staff members (except to say that improvement is needed.)
- There is no on-going research or discussion related to developing a research-based shared vision.
- Very few teachers know there is a district-level vision for technology, only one third of the third grade teachers at Water Creek Elementary were aware of a district-technology vision
- Teachers, generally speaking, don't have a vision for how to implement high-impact, student centered learning experiences.

Summary/Recommendations:

The Cobb County School District has developed an in-depth and comprehensive technology plan and vision for the district, which is aligned with the national vision. They have established their desired outcome and the concrete steps necessary to progress toward that vision. Unfortunately, at the individual school level, very few teachers are even aware of this vision, or the plan in place to move toward it. At Water Creek Elementary, there is no written, concrete vision that would unite all stakeholders in the goal of effective technology usage. Overall, the teachers believe that students need to be fluent in technology in order to succeed in the twenty-first century. However, the vast majority of teachers do not believe that they have the time, resources, or knowledge to effectively integrate technology, much less prepare students to use these resources. As most teachers do, beginning with the end in mind is a great way to

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progress, develop, and grow closer to achieving that vision. In order to know what steps are necessary and the process that needs to occur, teachers must know what the end goal, or the vision, looks like. Increasing awareness of the district vision, and creating an individual school technology vision would be a great way to start the progress and unite the stakeholders in a common goal.

ESSENTIAL CONDITION THREE: Planning for Technology

ISTE Definition: A systematic plan aligned with a shared vision for school effectiveness and student learning through the infusion of ICT and digital learning resources.

Guiding Questions:

- *Is there an adequate plan to guide technology use in your school? (either at the district or school level? Integrated into SIP?)*
- *What should be done to strengthen planning?*

<i>Strengths</i>	<i>Weaknesses</i>
<ul style="list-style-type: none"> • Teacher use of technology is briefly mentioned in the School Strategic Plan, indicating that it is of some importance in the overall school improvement planning process. • There is a set of National Technology Standards for students, teachers, and administrators. • There is a district-wide technology plan 	<ul style="list-style-type: none"> • Water Creek Elementary lacks a school-level technology plan • The School Strategic Plan only addresses teacher use of technology, failing to address student usage. • There is no school level technology committee to make local decisions or to develop a plan to implement the district vision. • There seems to be a general lack of knowledge among administrators, and teachers about how to develop a plan to guide technology usage.

Summary/Recommendations:

Without a plan, a vision cannot be achieved. Within the Cobb County School District, there is a technology plan to guide usage, growth, and progress. At Water Creek Elementary, there is no local technology plan. Because of there is no plan in place and most teachers are unaware of the district plan, each teacher determines how (and sometimes if) to implement technology. This leads to inconsistency, frustration, and confusion. Through discussions, it became clear, teachers at Water Creek Elementary would very much appreciate a school technology plan to guide their planning and implementation. One of the first steps in developing a plan is to determine the desired outcome, but the next, and most important step is (as Jim Collins says) “getting the right people on the bus.” In order for a school level technology plan to be effective, a balanced group of stakeholders need active involvement (not just administration.)

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ESSENTIAL CONDITION FOUR: Equitable Access

ISTE Definition: Robust and reliable access to current and emerging technologies and digital resources

Guiding Questions:

- *To what extent do students, teachers, administrators, and parents have access to computers and digital resources necessary to support engaging, standards-based, student-centered learning?*
- *To what extent is technology arranged/distributed to maximize access for engaging, standards-based, student-centered learning?*
- *What tools are needed and why?*
- *Do students/parents/community need/have beyond school access to support the vision for learning?*

Strengths

- All certified staff have a county-issued laptop with a variety of productivity tools and instructional software
- Classrooms are all outfitted with Promethean Boards, however usage is traditionally for lower leveling thinking (knowledge and comprehension).
- Classrooms are all outfitted with LCD projectors, which are used for displaying morning announcements, video clips, and a variety of presentations (daily use).
- Classrooms are all outfitted with at least two desktop computers with a variety of software.
- All classroom teachers are issued a set of iRespond remotes
- There is a 25 station computer lab in our school (available for sign-up)
- Laptop carts (with 20 laptops each) are available for individual classroom usage.
- The media center has 18 desktop computers for staff, student, and parent usage.
- Many students at Water Creek Elementary have qualified and taken advantage of the discounted internet rate available through Comcast.

Weaknesses

- The process for signing up for the computer lab is lengthy, times are not always enforced, and there are numerous limits. Due to the 20 visits per school year requirement for the computer lab, the available times are very limited.
- The laptop carts are easy to check out, however there is a limited amount of time that they can be utilized in specific classrooms due to power. (Laptop carts must be plugged into specific outlets, which are not present in every classroom.)
- Access to media center computers is often limited to individual student use due to book check-outs and media center lessons.
- Access to personal computers and internet are limited in the homes of our students.
- Language barriers prevent many of students and families from accessing information online
- Access to resources is not, generally speaking, equitable with teachers and administrators having far more access than students.
- While access to a variety of resources is available, the availability of the school passwords and login information is limited.

Summary/Recommendations:

The technological resources available at Water Creek Elementary are rather extensive. Significant funding, through Title I, has been used to purchase and enhance technology within the school. In addition to having resources for the staff and students, the technology at Water Creek Elementary is also available for parents. With ease, parents can come in and access the media center

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computers for internet or project use. Every classroom at Water Creek Elementary is considered 21st Century due to the resources available. Each classroom is equipped with an interactive whiteboard, LCD projector, DVD/VHS player, ELMO document camera, desktop computers, remote devices (iRespond), and a variety of software resources. Regardless of grade level, or specific field, all teachers have classrooms with access to these resources, meaning every student is educated in a 21st Century classroom. While access to these resources exist, usage is often vastly different. There are many barriers to accessing the technology at Water Creek Elementary (outside of the classroom.) Many of the barriers are designed to create more order and organization of processes, but ultimately limit and restrict access. Streamlining the processes for visiting the computer lab, utilizing the media center computers, and designing a more efficient way to power the laptop carts would increase access to the resources available outside of individual classrooms.

ESSENTIAL CONDITION FIVE: Skilled Personnel

ISTE Definition: Educators and support staff skilled in the use of ICT appropriate for their job responsibilities.

Guiding Questions:

- *To what extent are educators and support staff skilled in the use of technology appropriate for their job responsibilities?*
- *What do they currently know and are able to do?*
- *What are knowledge and skills do they need to acquire?*

(Note: No need to discuss professional learning here. Discuss knowledge and skills. This is your needs assessment for professional learning. The essential conditions focus on "personnel," which includes administrators, staff, technology specialists, and teachers. However, in this limited project, you may be wise to focus primarily or even solely on teachers; although you may choose to address the proficiency of other educators/staff IF the need is critical. You must include an assessment of teacher proficiencies.

Strengths

- Teachers are proficient in using technology for communication, administrative, and management purposes (attendance, Academic Portal, CSIS, etc.) and use these resources on a daily basis.
- All third grade teachers are proficient in their usage of productivity tools, Microsoft Word and Microsoft PowerPoint, and use these tools on a daily to weekly basis.
- All third grade teachers have a basic knowledge and at least limited experience with the iRespond System.
- All third grade teachers have basic understanding of ActivInspire software and have some level of experience in authoring flipcharts to be utilized with Promethean Board.

Weaknesses

- Teachers lack confidence in using the resources available, even when they have an understanding in how they work.
- Teachers don't know how to implement student-centered, performance based learning with technology.
- Teachers struggle to take technology beyond the levels of knowledge and comprehension.
- Teachers lack proficiency in creating and utilizing resources that engage students in the technology usage and capture the interactive component of technology.

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- The computer lab is staffed by a paraprofessional that has a degree in Instructional Technology

Summary/Recommendations:

As is evidenced in the strengths and weaknesses of Essential Condition Five, the teachers at Water Creek Elementary have become proficient users of a variety of technology. With e-mail being the primary form of daily communication among staff members, daily submission of attendance online, and access to student records being found through the intranet, technology usage is a necessity. Teachers have taken their usage of technology beyond basic management, to creation of documents in Word, PowerPoint, and Excel, maximizing the efficiency with technology and increasing their comfort level. Most recently, teachers have begun using their interactive whiteboards more frequently for shared flipcharts. Some teachers have even begun authoring their own flipcharts. This indicates an increase in knowledge, skill, and comfort level. However, many teachers do not know how to take their technology usage to the next level, engaging students in active learning experiences. Many teachers feel very skilled in using technology in the presentation format, but many still struggle with integrating interactive components.

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ESSENTIAL CONDITION SIX: Ongoing Professional Learning

ISTE Definition: Technology-related professional learning plans and opportunities with dedicated time to practice and share ideas.

Guiding Questions:

- *What professional learning opportunities are available to educators? Are they well-attended? Why or why not?*
- *Are the current professional learning opportunities matched to the knowledge and skills educators need to acquire? (see Skilled Personnel)*
- *Do professional learning opportunities reflect the national standards for professional learning (NSDC)?*
- *Do educators have both formal and informal opportunities to learn?*
- *Is technology-related professional learning integrated into all professional learning opportunities or isolated as a separate topic?*
- *How must professional learning improve/change in order to achieve the shared vision?*
- *In addition to break/fix technology staff, are there instructional technology coaches available to provide just-in-time support for teachers as they try to integrate technology into instruction?*

Strengths

- Several teachers within the building provide basic technology training and support to staff members.
- Generally, there is at least an initial training on new devices or software prior to integration.
- Professional development opportunities in technology are available for staff members (voluntarily) at least once a school year. (Often with financial incentives)
- This year, there is a Technology Integration Specialist assigned to the Area 2 schools, providing an additional level of support.
- Teachers tend to share new learning with other teachers (when they learn something new, they tend to share the information.)
- The administration capitalizes on the strengths of staff members for a variety of professional learning fields, including technology.

Weaknesses

- Teachers tend to only attend the technology professional development opportunities when there are incentives (financial compensation) involved.
- Professional development opportunities usually tell about how to do or work things. Teachers have never seen models of student-centered, performance based learning with technology.
- Technology professional development is typically isolated and not taught within the context of the curriculum.
- When technology trainings are offered, they are often at the same times as other content-focused trainings that most teachers deem more important.
- There is a general lack of “follow-up” and support after attending a technology training or in-service. This often keeps teachers from implementing the technology they have learned.

Summary/Recommendations:

Ongoing professional development opportunities are the only way to push forward toward the technology integration vision. The teachers must be knowledgeable and comfortable with the resources to experiment with and integrate in the classroom. With technology being a concern to administration after a recent GAPPS review, Water Creek Elementary has offered several professional learning opportunities in technology this year, formally and informally. Formally, a variety of classes have been offered to the staff, some with financial compensation, to build skill and confidence in usage of technology in the classroom. Informally, individual teachers have worked with small groups of people to help with various technology resources. The ability of knowledge to spread

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within the school is impressive, as a teacher learns something new, they share it with others. This is seen frequently at Water Creek Elementary with technology; a teachers learns how to do something and he/she shares it with others. The goal to provide professional learning related to technology seems to be working toward proficiency; it's the "ongoing" part that is lacking. The vast majority of these trainings lack support, follow-up, and feedback that is necessary for true learning. Many times, teachers attend the training but fail to implement their learning because they encounter a road block, or they forget what was learned. Other times, teachers fail to attend the trainings related to technology because they coincide with curriculum trainings that are viewed as more important. Teaching technology within the context of the curriculum would substantially increase the relevance. When teachers see how it looks in reality, they are far more likely to apply it. They also need to see how to maximize their usage for increased student engagement and interactivity.

ESSENTIAL CONDITION SEVEN: Technical Support

ISTE Definition: Consistent and reliable assistance for maintaining, renewing, and using ICT and digital resources.

Guiding Questions:

- *To what extent is available equipment operable and reliable for instruction?*
- *Is there tech assistance available for technical issues when they arise? How responsive is tech support? Are current "down time" averages acceptable?*
- *Is tech support knowledgeable? What training might they need?*

<i>Strengths</i>	<i>Weaknesses</i>
<ul style="list-style-type: none"> • There is technology support available through the county for hardware and software issues. • New laptops were issued this year, minimizing technology issues related to these computers. • Submitting a work order is relatively quick and easy, available through phone or e-mail. • Technology support occurs within the school, teachers do not have to travel to a different location for support or repairs. 	<ul style="list-style-type: none"> • Depending upon the problem, the amount of time to have a problem or issue resolved can exceed two weeks. • The number of technical support representatives is too low for the amount of issues that arise. (Technicians have too many schools to work) • There are many different departments in technical support, meaning that if you have more than one issue, it may take two or more technicians, coming at different times to resolve a problem. • When a technician, assigned to a school, is out (short or long term), there is no one to fill their spot. Rather, technicians from other schools take turns servicing the school when they have time available.

Summary/Recommendations:

Technology support through the Cobb County School District is available. After submitting a work order, a technician will come to the school and resolve the problem. It is convenient for the teacher because all repairs and issues are resolved at the school. The problem is, the wait time associated with these repairs can be extremely lengthy. When you are dependent upon some form of

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technology, any amount of “down time” is excessive. At Water Creek Elementary, our technical support representative has been out for more than a month. The amount of time required to have work order resolved is averaging around two weeks. Because there are no substitutes or fill-ins, when a technician is out, it becomes the responsibility of other technicians to service the school. Also, this summer, Water Creek Elementary underwent major construction and rewiring of all electrical systems. We are now in the 9th week of school and there are still classrooms that do not have their technology functioning. Because of the various department (Audio, Visual, Fiberoptic, etc.) there are many different people that come to solve a single problem. It takes multiple visits and multiple learning disruptions to have the problems resolved. It’s difficult to integrate technology when the resources are not available or are not working properly.

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ESSENTIAL CONDITION EIGHT: Curriculum Framework

ISTE Definition: Content standards and related digital curriculum resources

Guiding Questions:

- *To what extent are educators, students, and parents aware of student technology standards? (QCCs/NET-S)*
- *Are technology standards aligned to content standards to help teachers integrate technology skills into day-to-day instruction and not teach technology as a separate subject?*
- *To what extent are there digital curriculum resources available to teachers so that they can integrate technology into the GPS/QCCs as appropriate?*
- *How is student technology literacy assessed?*

Strengths

- Technology literacy is assessed in our district at the eighth grade level.
- Technology standards (GPS) are listed on the kindergarten through third grade report card and are required grades for each of the four grading periods.
- Two thirds of the third grade teachers are aware of the national technology standards.
- Teachers have access to digital curriculum resources, through Picasso for every content area, including technology.

Weaknesses

- While many teachers know that national technology standards exist, very few teachers know these standards specifically.
- Very few parents are aware of the technology standards
- Alignment between the GPS technology standards and the NET-S is difficult to understand
- Most teachers assess technological literacy through student ability to utilize basic productivity software.
- The importance of the technology standards is not expressed or emphasized.

Summary/Recommendations:

At Water Creek Elementary, most of the third grade teachers were aware that national technology standards existed. However, the teachers were unclear on the specifics of these standards and were unsure of how these standards were assessed. As the technology standards are not viewed as vital to student success, often the primary standards focus is in the content areas. In addition, because the importance of the technology standards is not communicated within the school, the parents have very limited knowledge of the technology standards. In Cobb County, Technology Literacy is a component of the primary grades report card, as it is standards-based. Many teachers determine this by analyzing ability to use a word processor or presentation software. Again in the eighth grade, this literacy is assessed again through a more standardized instrument. Very few teachers at Water Creek Elementary were aware of the eighth grade technology assessment, despite the fact that elementary school provides a foundation for understanding technology, prior to middle school. Overall, having a set of technology standards establishes the importance. Getting stakeholders to buy into this importance is the challenge.