

# MAKING the GRADE

WINTER 2007



## EDUCATION FOR THE 21<sup>ST</sup> CENTURY

Today's workplace has changed dramatically. North Carolina has moved from an economy once dominated by manufacturing and agriculture to one dominated by technology and research. This shift has resulted in fewer good job opportunities for people without a college education, much less a high school diploma. Schools must respond if students are to be ready for the future. This publication provides parents with a better understanding of public education in the 21<sup>st</sup> century and how you can help prepare your child to be successful in a global economy.

# STATE BOARD'S MISSION STATEMENT FOCUSES ON 21<sup>ST</sup> CENTURY SKILLS

Although history and personal experiences have left a strong imprint on how we believe schools should operate, children also need the benefit of new methods, innovative technologies and a renewed vision of public schooling. The bottom line is that children need an education that reflects the world they will face as adults, not the world faced by their parents.

The North Carolina State Board of Education recently embraced the challenge of providing students with a 21<sup>st</sup> century education by approving a new guiding mission statement and broad goals to frame the work that needs to be done to make our schools more globally competitive.

Being ready for the future is not just about academics; it also is about being healthy, well-adjusted citizens who can function successfully in society. It's about having the ability to leverage the strengths of others to accomplish a common goal. It's about demonstrating integrity and ethical behavior at home, in the workplace and in the community. We want our children to set and meet high standards for themselves and for others.

Some of the work to ensure that young people are ready for the future is already underway, especially in the area of health. The State Board requires elementary and middle school students to have a total of 30 minutes of physical activity each day, and by the end of the 2007-08 school year, elementary schools will be required to implement nutrition standards for food and beverages available to students and staff.

But there is still major work ahead for state and local school districts to ensure that the appropriate tools are in place to provide all students with a 21<sup>st</sup> century education. Some of these activities include:

- reviewing and revising the North Carolina Standard Course of Study in all content areas relative to 21<sup>st</sup> century learning;

- developing new curriculum, resources and professional development to support 21<sup>st</sup> century learning;
- reviewing and revising the end-of-grade, end-of-course, and writing assessments, NC Computer Skills test and the high school graduation project to align with 21<sup>st</sup> century learning;
- assisting local school districts in developing, implementing, and evaluating policies, schedules, and programs that support a healthy, active lifestyle for students; and
- developing models to ensure collaboration, partnerships and community involvement.

By adopting this new mission statement and outlining strategic goals, the State Board begins a new era of public school reform that will be as profound and far-reaching as its preceding accountability efforts.

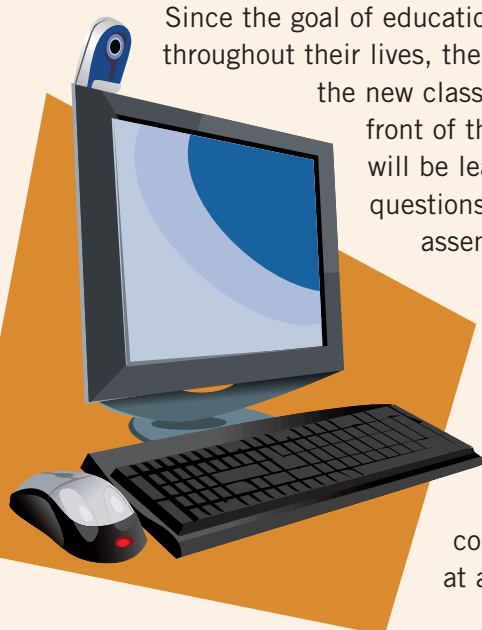
**The guiding mission of the State Board of Education is “that every public school student will graduate from high school globally competitive for work and postsecondary education and prepared for life in the 21<sup>st</sup> century.”**

**To accomplish this, North Carolina public schools will:**

- produce globally competitive students;
- be led by 21<sup>st</sup> century professionals;
- educate students who are healthy and responsible;
- employ leaders who will guide innovation; and
- be governed and supported by 21<sup>st</sup> century systems.

## TECHNOLOGY IS A KEY COMPONENT OF 21<sup>ST</sup> CENTURY CLASSROOMS

Twenty-first century schools will be exciting places to teach and learn! Your child's classroom will incorporate small group learning activities and less whole-class, teacher-centered instruction.



Since the goal of education is to teach children how to learn throughout their lives, the role of the teacher will change in the new classroom. Rather than standing in front of the room and lecturing, teachers will be learning coaches, using real-world questions and projects to help students assemble and use knowledge and skills. Learning will be based on prior knowledge and focused around guided research and building higher order thinking skills.

A team of school library media and technology specialists, in collaboration with classroom teachers at all schools, will provide a resource-

rich, technology-enhanced teaching and learning environment while simultaneously lowering student/teacher ratio.

In the ideal 21<sup>st</sup> century school, each school will have facilities and personnel that are necessary for a 21<sup>st</sup> century education. This includes individual classroom spaces – many with movable walls and flexible desk/table/cubicle configurations – and technology that is similar to what adults already use in the workplace. That means classrooms outfitted with an interactive digital whiteboard and data projector; a classroom set of individual student response devices; digital and video cameras; a telephone; one or more multimedia work stations that include printers, science probeware for experiments, digital microscopes and graphing scientific calculators for the upper grades.

These education teams will use technology differently for students at various levels and ages. For instance, in elementary schools, learning centers will be plentiful with computers sharing the stage with housekeeping stations, sand and water play stations, and spaces for small-group instruction and quiet reading. The library media coordinator and technology facilitator will collaborate consistently with classroom teachers

## TECHNOLOGY IS A KEY COMPONENT OF 21<sup>ST</sup> CENTURY CLASSROOMS *(continued)*

to provide research projects so that primary students learn to become problem-solvers and independent learners. Students will use early reading Web sites and software, make their own classroom books, host school-wide television shows and send encouraging emails to sick classmates.

As children move into upper elementary grades, they will gradually be introduced to one-to-one computing. Students will use their own computing device for research, project development and possibly for extra assistance in grasping complex tasks. The primary grades' learning center approach will morph into small-group work, with children of various interests and abilities taught to accept responsibility for their own and others' work within the project-based learning environment. The students will begin the exciting process of small-group research that combines blocks of classroom and media center time. They will gather a variety of resources — books, Web sites, videos, personal interviews — and pull information from all those sources to complete their projects.

This focus on becoming strong, independent learners will continue and increase throughout a student's middle school career. Once again, teaching teams will evaluate and build upon students' abilities and skills by using technology resources and project-based learning to differentiate instruction for all students. Interactive digital whiteboards and individual student response systems will help teachers determine whether students

understand certain skills or concepts, allowing reteaching for either the whole class or individual students, as necessary. Some students will be introduced to online courses. Others may use online modules to illustrate specific concepts for review or to enrich instruction. Still others will be paired with community members, subject experts from any place in the world or students from other states or countries as they work together on common classroom or personal projects.

In high schools, students will use technology to transform their educational environment. Some students may choose to expand their school day by taking traditional, face-to-face classes during school hours and online courses at other times. Others may choose to supplement the school day with one or more online courses. Colleges and universities will provide video and online instruction so that high school students can gain college credits. High school graduation projects, enabled by technology tools, will help students collaborate with scientists or researchers around the world.

Technology will be especially helpful to our most challenged students. Computers may help students with Attention Deficit Disorder and other learning disabilities to focus on the task at hand. Interactive drill-and-practice programs will provide reinforcement to students, and assistive technologies will give physically challenged children the tools to communicate and experience academic success.

## INFORMATION SKILLS BOLSTER 21<sup>ST</sup> CENTURY SUCCESS

Today's students live and learn in a world that has been radically changed by the ready availability of vast quantities of information in a variety of formats. Many students know how to use technology. Unfortunately, fewer students know how to locate the information they need, how to evaluate it for accuracy and usefulness and then communicate their findings effectively.

Ready access to information and information resources requires students to think critically and be responsible, safe and ethical in using resources. North Carolina's *Standard Course of Study* addresses these critical skills in its K-12 Information Skills and K-12 Computer/Technology Skills Standard Courses of Study. These skills, when integrated with other curricular areas, help students become lifelong learners and informed decision-makers.

Acquiring these skills is crucial for today's children to function in the 21<sup>st</sup> century. Most of what we read on a daily basis is considered informational text. Newspapers, the Internet, road signs, receipts, sales flyers, recipes and directions are just a few examples of informational text encountered on a daily basis.

Parents can support their children's teachers by making sure informational text is a part of their

children's daily reading program. It's easier to get children excited about reading when they can connect with the topic or are curious about the subject. In addition, informational text allows children to draw on their personal experiences so that they are more comfortable in asking questions, making comments and contributing to the conversation. This can be particularly helpful to children whose first language is not English.

There are a number of ways parents can help their children become more information-literate while better understanding how we are all globally connected. For example, make a world map available to your child. As you read news about different places, find those locations on the map and discuss how events that happen in other places can affect your community.

Have your child look at stories about businesses in your area and the "help wanted" section of the newspaper. What businesses are moving in

and out of your area? What jobs are in the most demand? What skills do the jobs require? What training do employees need? Is your child interested in any of the jobs? Why or why not?

Parents also can encourage their children to compare their local newspaper with its Web site. Are there information resources in one that are not available in the other? What are all the ways that the newspaper presents information and communicates with its readers (text, photos, cartoons, email, blogs, video, etc.)? How do you think technology affects newspapers and other sources of news?

Why not plan a virtual trip to a place outside of the United States? Have your child help plan how you would get there, when would be the best time to go, where you would find information on hotels and sites of interest.



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## INFORMATION SKILLS BOLSTER 21<sup>ST</sup> CENTURY SUCCESS *(continued)*

By working together, teachers and parents can help students become information-literate so they are better prepared for the challenges they will encounter in postsecondary education and ultimately the workforce.

### FOCUS AREAS FOR INFORMATION SKILLS

*Information skills are used to:*

- \* develop a love of reading;
- \* locate information and informational resources;
- \* collect and analyze data to meet information needs;
- \* evaluate resources and information for quality and accuracy;
- \* synthesize and interpret information and data to meet information needs;
- \* communicate information and ideas in a variety of formats; and
- \* foster ethical and responsible use of information and informational resources.

### FOR MORE INFORMATION

If you'd like more information on what various organizations are doing to support 21<sup>st</sup> century learning skills, the following Web sites may prove helpful:

**North Carolina Department of Public Instruction,  
North Carolina Standard Course of Study, Information Skills**  
<http://www.ncpublicschools.org/curriculum/information>

**North Carolina Virtual Public School**  
<http://www.ncvps.org>

**Achieve, Inc., The American Diploma Project**  
<http://www.achieve.org/node/604>

**New Schools Project**  
<http://www.newschoolsproject.org>

**North Carolina Business Committee for Education**  
<http://www.ncbce.org>

**North Carolina Business Education Technology Alliance**  
<http://www.betanc.com>

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